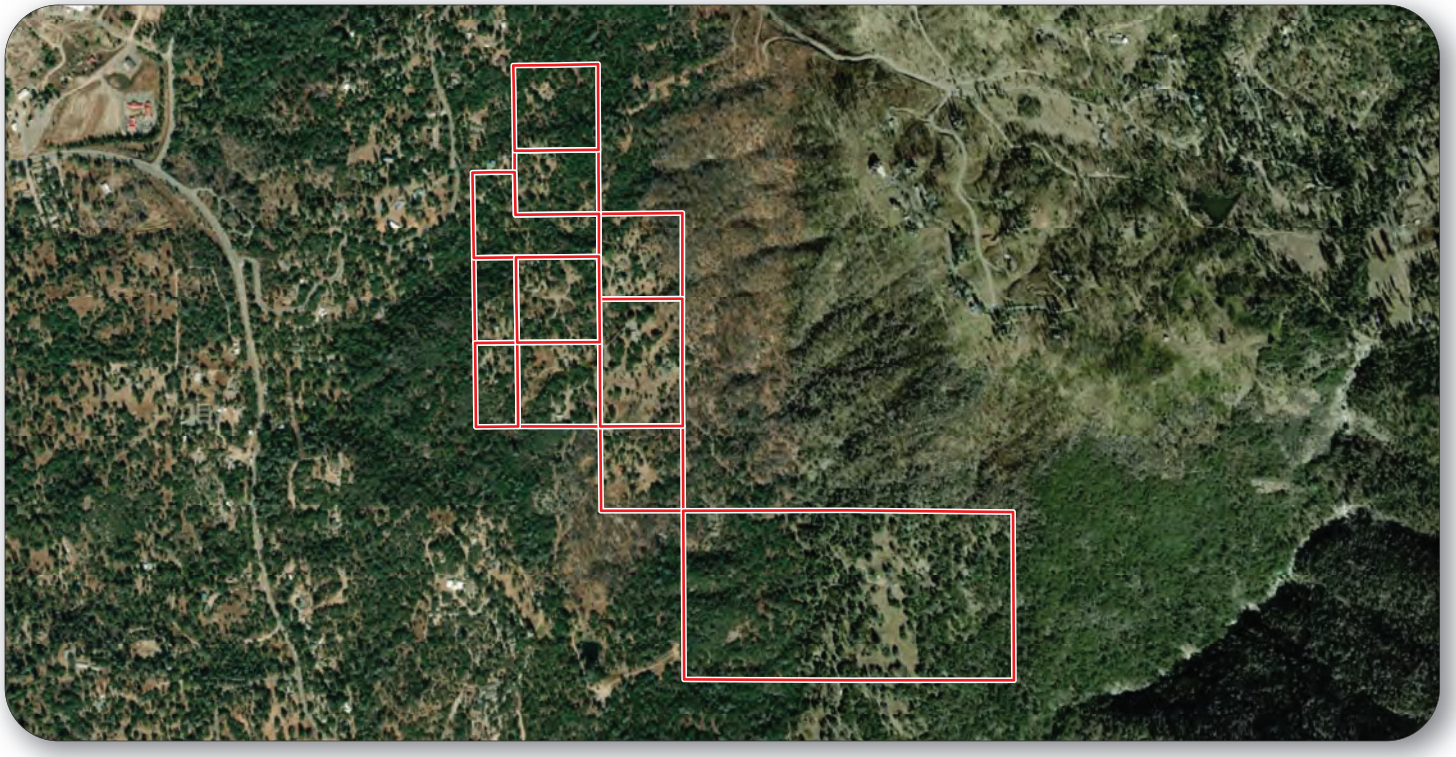


INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

NORTH FORK RANCHERIA FUELS REDUCTION PROJECT

SEPTEMBER 2022

LEAD AGENCY:
Yosemite/Sequoia Resource Conservation and Development Council
Community Development Department
Courthouse - 255 North Forbes Street
Lakeport, CA 95453

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PREPARED BY:

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AES
a Montrose Environmental Group company

TABLE OF CONTENTS

NORTH FORK RANCHERIA FUELS REDUCTION PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

I. Aesthetics 20
II. Agriculture and Forestry Resources 22
III. Air Quality 24
IV. Biological Resources 27
V. Cultural Resources 32
VI. Energy 35
VII. Geology and Soils 36
VIII. Greenhouse Gas Emissions 39
IX. Hazards and Hazardous Materials 41
X. Hydrology and Water Quality 44
XI. Land Use and Planning 47
XII. Mineral Resources 49
XIII. Noise 50
XIV. Population and Housing 52
XV. Public Services 53
XVI. Recreation 54
XVII. Transportation 55
XVIII. Tribal Cultural Resources 57
XIX. Utilities and Service Systems 58
XX. Wildfire 59
XXI. Mandatory Findings of Significance 62
**Sources List 63

LIST OF FIGURES

Figure 1. Regional Location 5
Figure 2. Site and Vicinity 6
Figure 3. Aerial Photograph of Project Site 7
Figure 4. Aerial Photograph of Forest Management Portion of Project Site 8
Figure 5. Aerial Photograph of Public Allotments Portion of Project Site 9

LIST OF APPENDICES

Appendix A. Forest Management Plan 68
Appendix B. Cultural Resources Studies: Forest Management Plan and Trust Allotments Fuels Reduction Project (Bound Under Separate Cover) 69

CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY

ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** North Fork Rancheria Fuels Reduction Project

2. **Permits:** None Required

3. **Lead Agency Name and Address:** Yosemite/Sequoia Resource Conservation and Development Council (YSRCDC)
   Community Development Department
   Courthouse – 255 North Forbes Street
   Lakeport, CA 95453

4. **Supervisor District:** District Five (5), Madera County (County)

5. **Contact Person/Phone Number:** Hazel Lavender, Project Manager / (559) 760-5271

6. **Project Location:** Sections 17, 20, and 21 of Township 8 South, Range 23 East, Mount Diablo Base Meridian, Madera County, CA

7. **Parcel Numbers & Size:** 80 Acres Tribal Trust Allotments (Assessor's Parcel Numbers [APN] 060-280-010 and 060-280-012) and 92 Acres Public Trust Allotments (portions of APNs 060-190-061 and 060-028-013)

8. **Project Sponsor's Name/Address:** Kristen Merrill, Resource Management; State of California, Department of Forestry and Fire Protection (CAL FIRE); P.O. Box 944246, Sacramento, CA 94244

9. **General Plan Designation:** Public Open Space (POS), Rural Mountain District (RM), Opens Space (OS)

10. **Zoning:** "POS" Public Open Space District, "RM" Residential Mountain Family Zone, and "OS" Open Space District

11. **Flood Zone:** "D" – Area of Undetermined Flood Hazard

12. **Slope:** Range from approximately 2,980 feet to approximately 3,450 feet, sloping to the northeast

13. **Natural Hazards:** Project Site is designated as a Very High Fire Hazard area

14. **Waterways:** Several Class 3 watercourses, two stock ponds (one ephemeral and one spring fed); Lower Willow Creek and Lower Whisky Creek

15. **Fire District:** CAL FIRE and Madera County Fire Department

16. **School District:** Chawanakee Unified School District

17. **Description of Project:** (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary).

Introduction

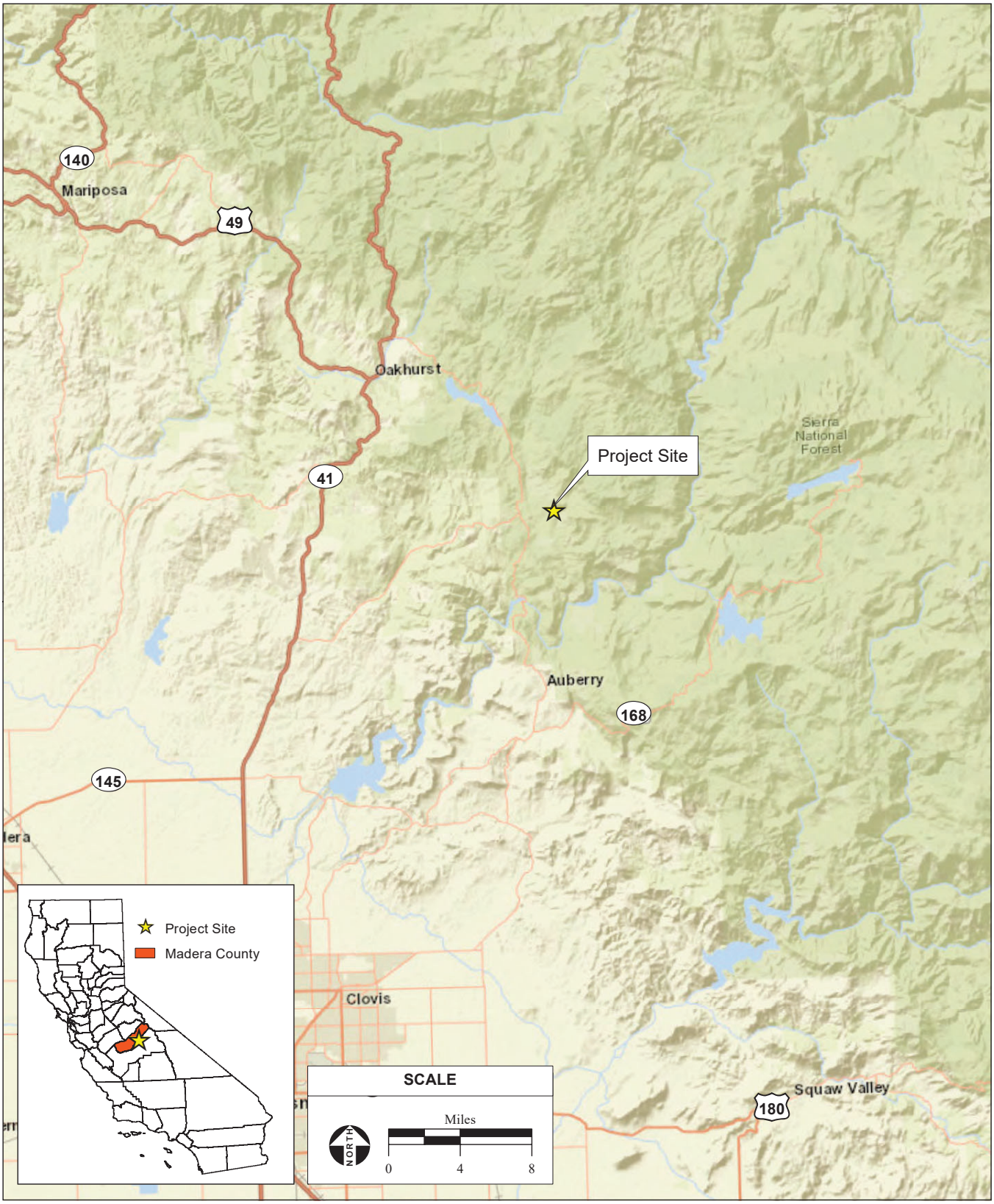
The North Fork Rancheria of Mono Indians (Tribe) is a federally recognized tribe with tribal lands near the town of North Fork in Madera County, California. The Tribe is a subrecipient of a grant awarded to the YSRCDC through CAL FIRE California Climate Investments (CCI) Forest Health Grant Program. In particular, the Tribe has teamed with the YSRCDC under the Mission Fire Recovery Project to conduct vegetation management on Tribal lands. The Tribe proposed to develop and have approved by the Department of the Interior, Bureau of Indian Affairs (BIA) a Forest Management Plan (FMP) outlining fuel reduction actions for 80 acres of land held in trust for the Tribe (FMP Area). The BIA is the federal agency that is charged with the review and approval of tribal applications to undertake forest management actions on tribal land and such an approval requires compliance with the National Environmental Policy Act, which is currently being conducted. In addition, the Tribe has proposed to conduct fuel reduction actions recommend in the FMP and associated forest management recommendations on an additional contiguous 92 acres of public domain trust allotments (Public Allotments). The FMP for the 80 acres and application of fuel reduction actions to the additional 92 acres constitute the Proposed Project that requires approval by the YSRCDC and therefore compliance with the California Environmental Quality Act (CEQA) is also required.

The land proposed for forest management is currently owned by the Tribe and individual tribal members and consists of approximately 172± acres (80 acres of Tribal land and 92 acres of Public Allotments) in Madera County, California (Project Site). The regional location and site and vicinity are shown on **Figures 1** and **2**, respectively. An aerial photograph depicting the Project Site boundaries is presented on **Figure 3**. An aerial photograph of the FMP and the Public Allotments portions of the Project Site are shown on **Figures 4** and **5**, respectively. YSRCDC, acting as the Lead Agency, as defined in the CEQA Guidelines § 15367, is preparing an Initial Study (IS) to determine if the Proposed Project would have a significant effect on the environment and if an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND) is appropriate. A copy of the FMP is included as **Appendix A**.

Project Description

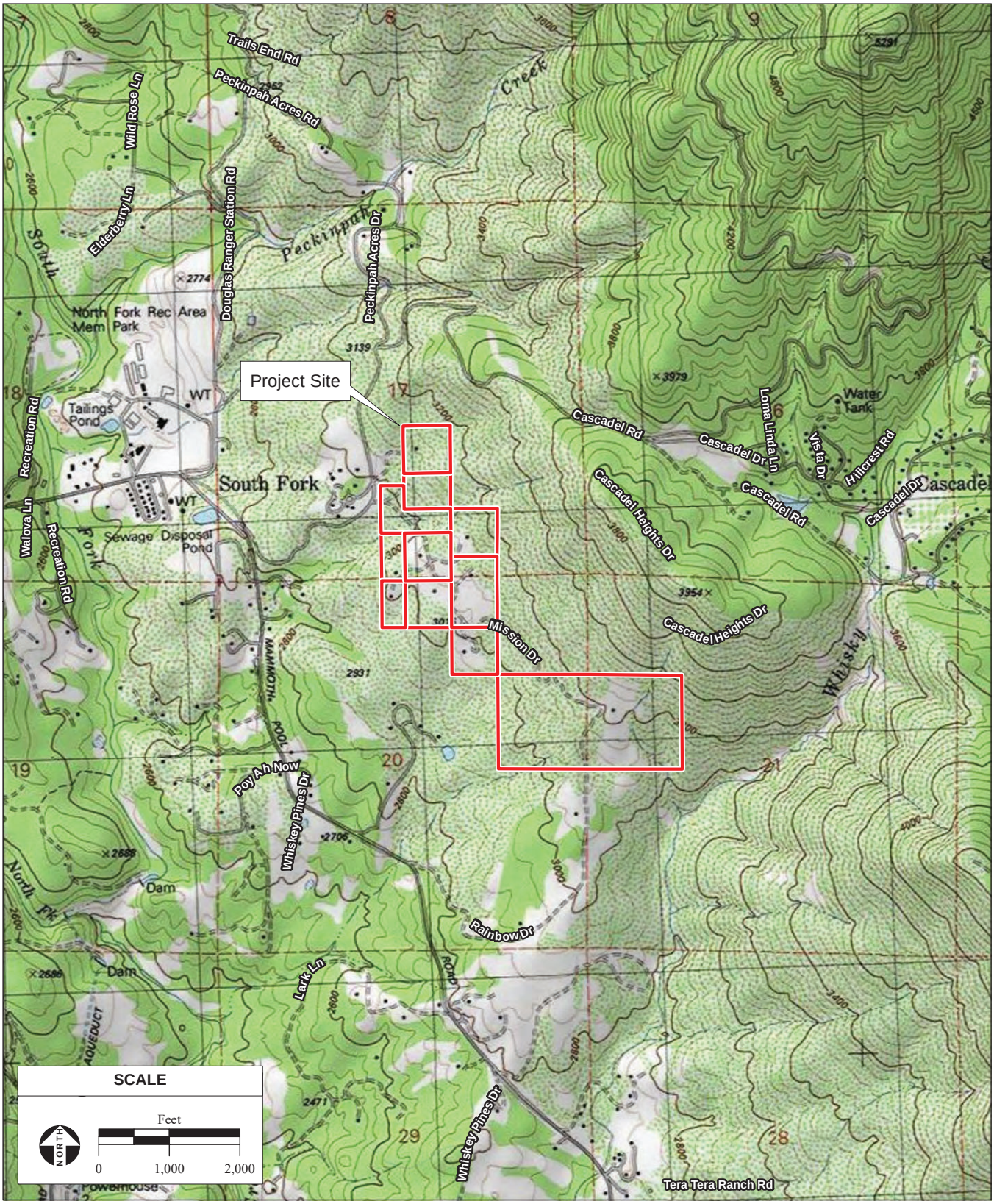
The Project Site is located in Madera County, California, 1.5 miles southeast of the town of South Fork. The Project Site is surrounded on all sides by lands administered by the U.S. Forest Service (USFS), within the Sierra National Forest. The legal description of the Project Site is: portions of Sections 17, 20, and 21 of Township 8 South, Range 23 East, Mount Diablo Base Meridian, as depicted on the Cascadel Point, CA U.S. Geological Survey (USGS) 7.5 quadrangle map (**Figure 2**). Access is via paved and gravel surfaced roads off Cascadel Road (County Road 225) and Mission Drive. There are two

residences and four outbuildings located within the FMP Area and over 20 homes and numerous outbuildings within the Public Allotments. The topography of the Project Site ranges from approximately 2,980 feet to approximately 3,450 feet, sloping to the northeast. The majority of the Project Site has gentle slopes with the steepest sloes (>35%) located in the northeastern portions of the FMP Area. The FMP Area sits on a gentle ridge between two watersheds: Lower Willow Creek and Lower Whisky Creek. The Project Site is surrounded on all sides by Sierra National Forest lands.



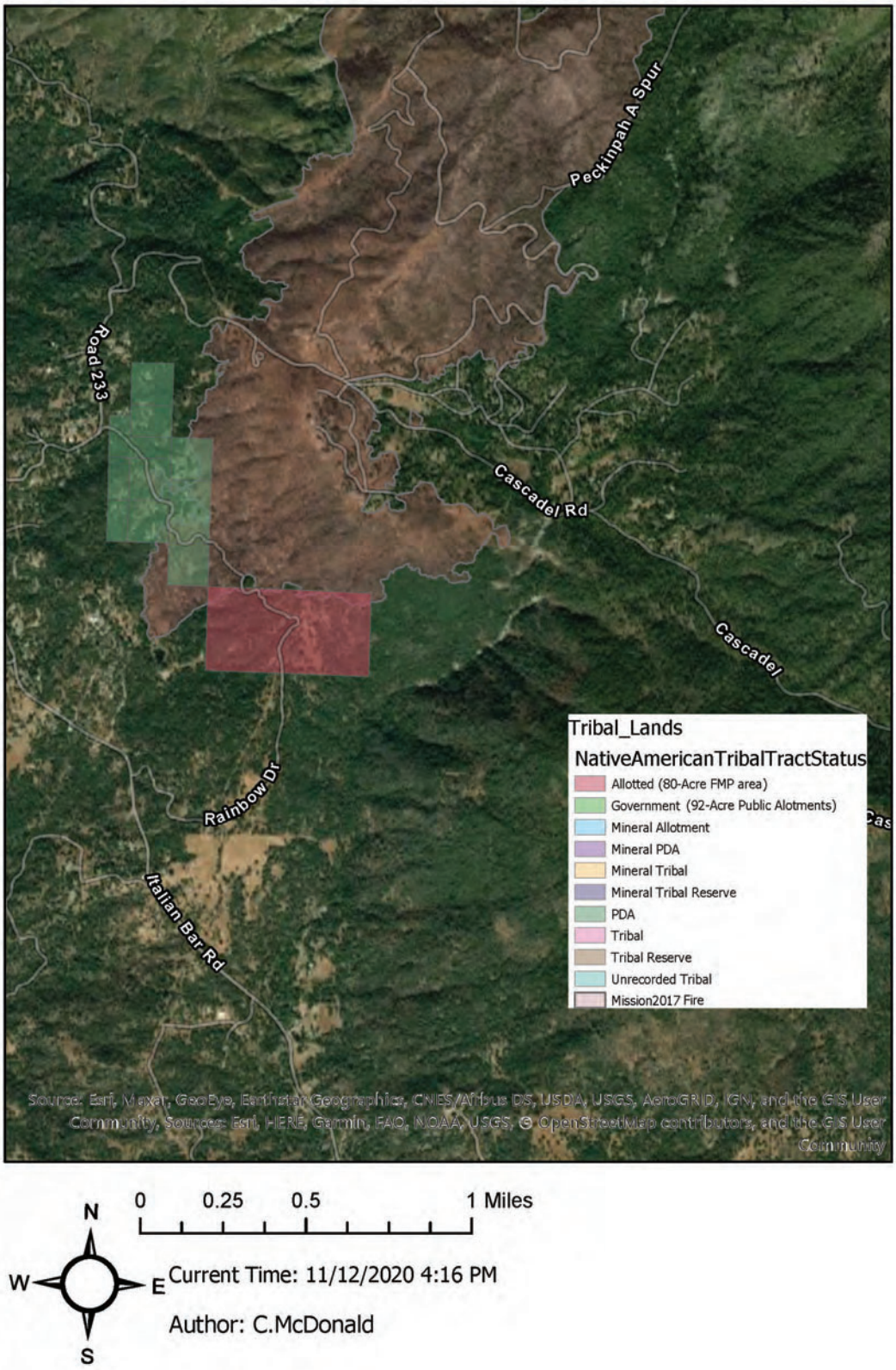
SOURCE: ESRI, 2022; AES, 9/2/2022

Figure 1
Regional Location



SOURCE: "Cascadel Point, CA" USGS 7.5 Minute Topographic Quadrangle, T8S R23E, Section 17, 20 and 21, Mt Diablo Baseline & Meridian; ESRI, 2022; AES-Montrose, 9/2/2022

Figure 2
Site and Vicinity



SOURCE: C McDonald, 2020; AES-Montrose, 9/2/2022

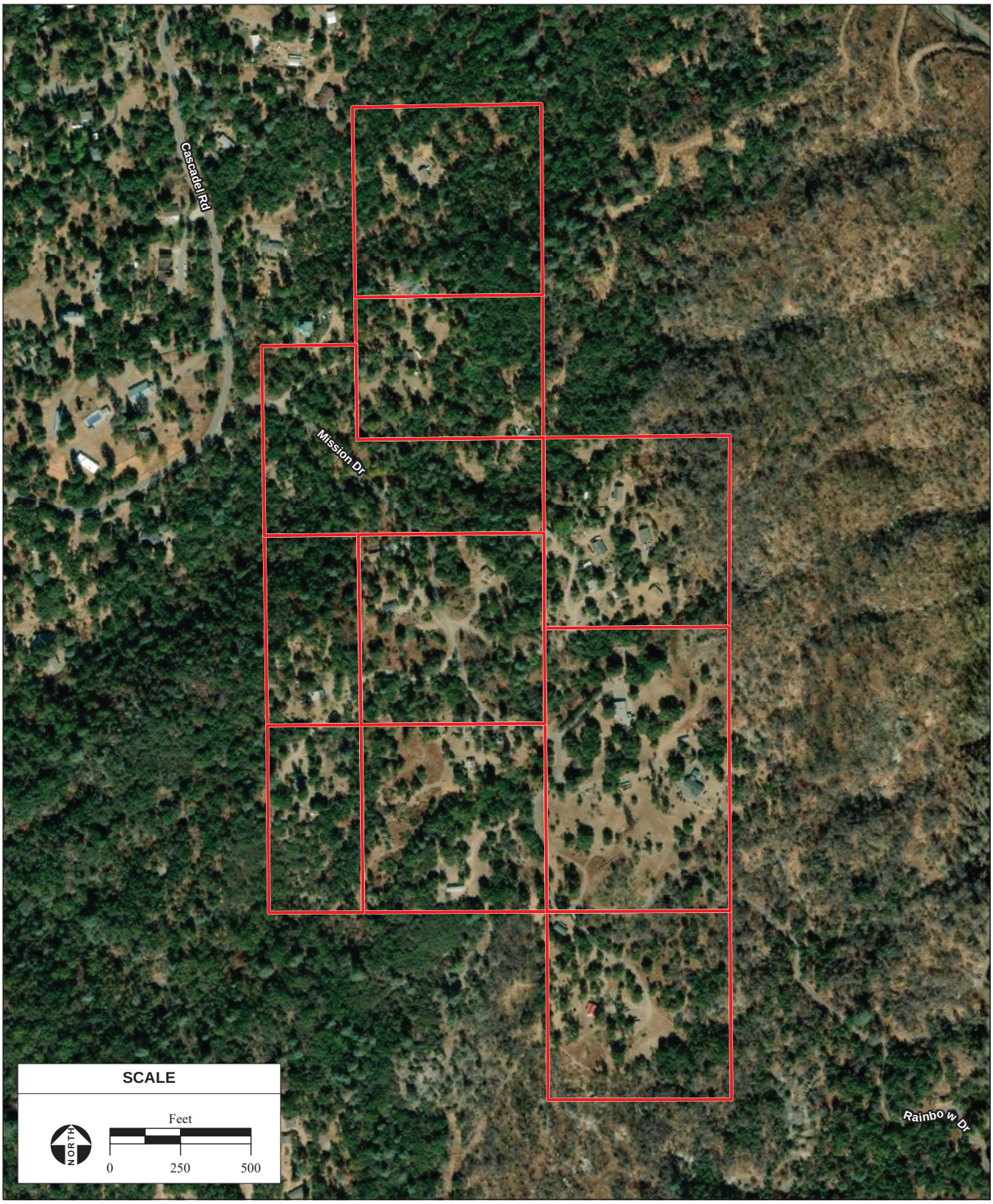
Figure 3
Aerial Photograph of Project Site



SOURCE: Vivid Maxar aerial photography, 10/21/2019, 2/10/2020; AES-Montrose, 9/20/2022

Figure 4

Aerial Photograph of Forest Management Portion of Project Site



SOURCE: Vivid Maxar aerial photograph, 10/21/2019; ESRI, 2022; AES-Montrose, 9/2/2022

Figure 5
Aerial Photograph of Public Allotments Portion of Project Site

An FMP is required in order to undertake forest management activities to reduce the risk of wildfire on the 80 acres of individual trust allotments in accordance with BIA trust responsibilities for resource management on qualifying tribal lands. The Proposed Project would then apply the same fuel reduction actions and associated management forest management recommendations to the adjacent 92-acre Public Allotments for which an FMP is not required.

The Project Site and surrounding area has been affected by a considerable number of fires over the past century, including the recent Mission Fire (2017) and the 379,882-acre Creek Fire (2020). The Project Site is also characterized by a large quantity of fuel at all levels—ground fuel, ladder fuels, and canopy. Considering the historic propensity of the area to burn and the abundance of existing fuel, the Project Site represents a high fire hazard risk. The purpose of the Proposed Project is to adopt an FMP to reduce fuel loading on the 80-acre FMP parcels and recommend forest health actions for the 92-acre Public Allotments. Therefore, both components of the Proposed Project would provide the Tribe with a roadmap with which to protect its land and properties while improving the ecological health of these lands.

The Proposed Project consists of the approval of funding by YSRCDC for development and implementation of the FMP for the 80-acre FMP Area and for the application of the fuel reduction actions on the 92-acre Public Allotments.

The goals and objectives of the FMP are to:

1. Restore areas that have experienced high severity wildfires,
2. Reforest areas that have experienced high severity wildfires and dramatic tree mortality to promote ecosystem biodiversity and connectivity,
3. Restore critical forest carbon stocks,
4. Implement strategic fuel treatments that address public safety hazards,
5. Prepare for future prescribed fire and reforestation efforts,
6. Utilize strategic planning, including:
    - Light Detection and Ranging mapping analysis, and
    - Technical assistance from diverse partners to facilitate climate-informed and science-based restoration in the region over the next ten years.

Elements of the FMP include:

1. Forest Fuels Reduction

The Tribe would reduce fuels within the 80-acre FMP Area and utilize the same fuel reduction and vegetation management methodologies within the 92-acre adjacent Public Allotments. Due to the size of the FMP and Public Allotments areas, the absence of conifer species, and the low hardwood stocking levels, tree harvesting would be limited to:

- Fuel break associated with the primary access road and secondary roads throughout the property. This should be, at a minimum, 50 feet clear on each side of the road surface.
- Defensible space around the structures, up to 300 feet.
- Once fuel treatments have been implemented, hardwood removals should not exceed estimated growth (10 cubic feet per acre per year = 5 cords per year per acre on 65 woodland acres).
- The allowable harvest is expected to support the Tribe and its need for home heating.

2. Prescribed Fire

The Tribe would conduct 10 acres of prescription fire practices annually within the FMP Area and Public Allotments. The primary purpose of prescribed fire is to reduce ground and ladder fuels. This reduction would slow fire events and reduce the potential for extremely hot fire events. Grazing of cattle, goats, and/or sheep would be instated, where applicable, and livestock would be available to reduce ground fuels and ladder fuels economically and achieve the goal of reduced ladder fuel loads within the FMP Area and Public Allotments. The installation of fuel breaks and defensible spaces around structures by the Tribe would facilitate the safe application of a landscape prescribed fire event.

3. Pest Management

The Tribe would eradicate 1 acre of the following invasive species found within the FMP Area as well as the Public Allotments:

- Tree-of-Heaven, California Invasive Plant Council (IPC)-rated Moderate, California Department of Food and Agriculture (CDFA) Noxious Weed
- Klamath weed, Cal IPC-rated Moderate, CDFA Noxious Weed
- Scotch broom, Cal IPC-rated High, CDFA Noxious Weed
- Star thistle, Cal IPC-rated High, CDFA Noxious Weed

Control options for invasive species include integrative pest management (IPM): chemical, biological, and mechanical. In many cases control involves more than one aspect, if not all three. Persistent monitoring of populations would be conducted for successful control of invasive plants.

Chemical applications would entail pest control recommendation provided by a Pest Control Advisor (PCA) and herbicide applications would be performed by a licensed Pest Control Operator, a profession listed by the Madera County Agricultural Commissioner's Office.

4. Reforestation

The Tribe would conduct 20 acres of site preparation for reforestation practices within the FMP Area and Public Allotments using the following management strategies:

- Restore areas damaged by recent high severity wildfires in 2017 and 2020. Due to the fire adaption of the brush and forest species associated with this ecosystem, there is no need to restore the burned vegetation. Many species can sprout from their base because of fire, and/or have adapted to fire through the buried seed strategy, whereas the original plant is destroyed by fire, but has left an abundance of long-lived seed in the soil. Onsite evaluation of both methods of regeneration shows this is occurring.

- Reforest areas of high severity wildfires. The soils within the FMP Area are marginal for commercial timber production. While commercial species are found (ponderosa pine) they are at low densities and have been historically. The FMP Area is best described as a mixed hardwood conifer, dominated by interior live oak, canyon live oak, blue oak, ponderosa pinem and gray pine. There are sporadic occurrences of both white oak and valley oak.

- Planting of commercial forest species would not produce a viable commercial forest. The soil types would produce an unhealthy forest due to lack of nutrients, moisture, soil depth, and elevation. Evaluate soil conditions and suitability for commercial timber production within the Public Allotments.

- Restore critical forest carbon stocks. Grazing and fuel breaks would decrease potential fire intensity while allowing forest canopy and tree diameters to increase thus increasing carbon stocks. The restoration of native perennial bunchgrass can also increase carbon stocks below ground. Examples of native perennial grasses would include blue wildrye (*Elymus glaucus*), beardless wildrye (*Elymus triticoides*), meadow barley (*Hordeum brachyantherum*), California oniongrass

(*Melica californica*), and purple needlegrass (*Stipa pulchra*). The restored areas would need to be protected from grazing until they have become established.

- Implement strategic fuel treatments to address safety. By establishing fuel breaks around structures on the Project Site and a fuel break along the primary access roads, fire suppression activities would be more successful.

5. Biomass Utilization

   The Tribe would transport some of the cut fuels to a local bio generation facility for woody biomass utilization and the remainder of the cut fuels would be used by the Tribe for residential heating. Two biomass plants exist in Madera and Fresno counties. Due to the small size of oaks within the FMP Area, it is suggested that the development of biomass for regeneration be delayed until it would be more economic to harvest and deliver. Due to the gentle slopes, averaging less than 30%, future harvesting of biomass should be undertaken with mechanized logging equipment. This would allow an economical method of removing larger hardwood trees and minimizing soil disturbance associated with conventional logging equipment.

California Vegetation Treatment Program

A California Vegetation Treatment Program (CalVTP) Final Program Environmental Impact Report (PEIR) has been certified by the California Board of Forestry and Fire Protection to implement vegetation treatments within the State Responsibility Area (SRA) to reduce the risks of wildfires, reduce greenhouse gases (GHG), and manage natural and working lands. The CalVTP PEIR includes a Mitigation Monitoring and Reporting Program (MMRP) as Appendix B that provides a comprehensive list of Standard Project Requirements (SPR) and mitigation measures identified in the CalVT PEIR that have been adopted or made a condition of project approval to avoid or mitigate significant effects on the environment resulting from implementation of the CalVTP (CBFFP, 2019).

The FMP and application of the fuel reduction would occur on federal lands, but also within an SRA, therefore, the following Administrative SPRs are relevant to the Proposed Project. Additional SPRs and mitigation measures that are applicable to specific environmental factors are identified in the Environmental Checklist by the corresponding SPR or mitigation measure that appears in the CalVT MMRP. The CalVTP MMRP (Appendix B of the CalVTP PEIR) is available online at: https://bof.fire.ca.gov/projects-and-programs/calvtp/calvtp-programmatic-eir/.

Administrative Standard Project Requirements

- SPR AD-1 Project Proponent Coordination
- SPR AD-2 Delineate Protected Resources

- SPR AD-3 Consistency with Local Plans, Policies, and Ordinances
- SPR AD-4 Public Notifications for Prescribed Burning
- SPR AD-5 Maintain Site Cleanliness
- SPR AD-6 Public Notification for Treatment Projects
- SPR AD-8 Request Access for Post-Treatment Assessment

18. Surrounding Land Uses and Setting: Briefly describe the project's surroundings:

- **North:** Parcels to the north of the FMP Area and Public Allotments are primarily zoned RM (Rural Mountain). These parcels contain forest lands and scattered rural residences.
- **South:** Parcels to the south of the FMP Area and Public Allotments are primarily zoned ARE-40 (Agricultural, Rural, Exclusive). These parcels contain forest lands and scattered rural residences.
- **West:** Parcels to the west of the FMP Area are primarily zoned ARE-40 and to the west of the Public Allotments are primarily zoned RM and RMS (Residential, Mountain Single Family). These parcels contain scattered rural residences within mixed forest lands.
- **East:** Parcels to the east are primarily zoned RM. These parcels contain forest lands and scattered rural residences.

19. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):

No additional approvals would be required.

20. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (Refer to CA Public Resources Code § 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code § 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code § 21082.3(c) contains provisions specific to confidentiality.

The Tribe is a subrecipient of a grant awarded to YSRCDC through the CAL FIRE CCI Forest Health Grant program. Therefore, no additional tribal consultation was requested.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact requiring mitigation to bring it to a less-than-significant level. A Mitigation Monitoring and Reporting Program provided ensures compliance with mitigation measures during project implementation.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture & Forestry Resources	☒ **Hazards & Hazardous Materials**	☐ Recreation
☐ Air Quality	☒ **Hydrology/Water Quality**	☒ **Transportation**
☒ **Biological Resources**	☐ Land Use / Planning	☒ **Tribal Cultural Resources**
☒ **Cultural Resources**	☐ Mineral Resources	☐ Utilities / Service Systems
☐ Energy	☐ Noise	☒ **Wildfire**
☒ **Geology / Soils**	☐ Population / Housing	☒ **Mandatory Findings of Significance**

DETERMINATION: (To be completed by the lead Agency) - On the basis of this initial evaluation:

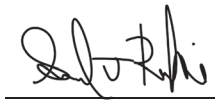
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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



Date: 10/23/2024

SIGNATURE
Representative

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, and then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were

incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and

    b. the mitigation measure identified, if any, to reduce the impact to less than significance.

KEY:

1 = Potentially Significant Impact

2 = Less Than Significant with Mitigation Incorporation

3 = Less Than Significant Impact

4 = No Impact

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
I. AESTHETICS *Except as provided in Public Resources Code Section 21099, would the project:*						
a) Have a substantial adverse effect on a scenic vista?			X		The Project Site is located within a rural, woodland area that includes approximately 25 residences and surrounding outbuildings. The characteristics of the Project Site would not be considered a scenic vista from off-site locations. The topography of the Project Site ranges from approximately 2,980 feet to approximately 3,450 feet, sloping to the northeast. The Project Site would be visible from portions of Mission Drive and higher elevations to the north and east. The Project Site is surrounded on all sides by the Sierra National Forest (NF), which would be considered a scenic vista. The Proposed Project would involve the clearing of vegetation and trees along the primary and secondary access roads to create fuel breaks, the thinning of vegetation to create defensible space around structures, and the thinning of vegetation within the Project Site to reduce fuel loads. While these actions would result in the removal of vegetation and trees, this would not result in a substantial change from the surrounding forest area. In addition, the Project Site does not offer a scenic vista from surrounding areas. Therefore, impacts would be less than significant. **Less-Than-Significant Impact**	1
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X	Although the Proposed Project would result in the removal of trees, the Project Site is not visible from nor located near a state scenic highway. Therefore, no impact to scenic resources within a state scenic highway would occur. **No Impact**	1, 2
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X		The Proposed Project would result in the removal of trees and other vegetation 50 feet from the primary and secondary access roads, which would be visible from public roadways and from higher elevations to the east and north. Although this would result in a change in the visual character of the Project Site, due to the limited amount of vegetation that would be removed in comparison to the surrounding forest area, this would not be considered substantial. Furthermore, implementation of CalVTP Standard Project Requirements SPR AES-1 Vegetation Thinning and Edge Feathering, SPR AES-2 Avoid Staging within Viewsheds, and SPR AES-3 Provide Vegetation Screening, would further reduce any degradation to the existing visual character of the Project Site from public views. Therefore, impacts on visual character of the Project Site would be less than significant. **Less-Than-Significant Impact**	1, 3

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X		Activities associated with the Proposed Project, such as forest fuel reduction, prescribed fire, pest management, reforestation, and harvesting and transportation of biomass would occur during daytime hours and would not result in the creation of substantial light or glare. Therefore, impacts would be less than significant. **Less-Than-Significant Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
II. AGRICULTURE AND FORESTRY RESOURCES *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. Would the project:*						
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?					The Project Site is not classified by the California Department of Conservation as Prime, Statewide, Unique, or Local Importance Farmland. In addition, there is no existing agricultural operations on the Project Site. Therefore, no conversion of Farmland to non-agricultural uses would occur and there would be no impact. **No Impact**	4
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?					The FMP Area of the Project Site is Tribal Trust Land and the Public Allotments portion of the Project Site are owned by individual tribal members. Although land uses are under the governance of the Tribe, the Madera County General Plan and Zoning Map designates the FMP Area as Public Open Space (POS). The majority of the Public Allotments are designated as Rural Mountain District (RM) and a portion near the intersection of County Road 233 and Cascadel Road is designated as Open Space (OS). In addition, the Project Site, is not under an active Williamson Act contract, as this designation is not applicable to tribal lands. Therefore, the Proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract and there would be no impact. **No Impact**	5, 6
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X	The Project Site is not zoned forest land, timberland, or Timberland Production. Due to the size of the Project Site, the absence of conifer species, and the low hardwood stocking levels, tree harvesting would be limited to: fuel breaks associated with access roads, defensible space around structures, and limited hardwood removal. As described in the FMP (included in **Appendix A**), timber stocking levels are marginal for commercial timber production. Due to the lack of commercial value of woodland forest associated with the FMP Area future resource inventory is not recommended. It is expected that these same conditions apply to the Public Allotments. Therefore, forest management activities on the Project Site would not conflict with associated with forest land, timberland, or Timberland Production and there would be no impact. **No Impact**	1, 5, 6

d) Result in the loss of forest land or conversion of forest land to non-forest use?			X		Due to the size of the Project Site, the absence of conifer species, and the low hardwood stocking levels, tree harvesting and loss of forest land would be limited to: fuel breaks associated with access roads, defensible space around structures, and limited hardwood removal. In addition, 20 acres within the Project Site would be set aside for reforestation. Therefore, the Proposed Project would not result in a substantial loss of forest land to non-forest use. In addition, forest management activities would improve forest diversity. Therefore, impacts on forest land would be less than significant. **Less-Than-Significant Impact**	1
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X		As described above, the Proposed Project would not result in the conversion of Farmland to non-agricultural use and would result in a limited conversion of forest land to non-forest use through fuel breaks, defensible space, and limited hardwood removal. In addition, 20 acres would be set aside for reforestation. Therefore, impacts would be less than significant. **Less-Than-Significant Impact**	1, 4, 5, 6

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
III. AIR QUALITY *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:*						
a) Conflict with or obstruct implementation of the applicable air quality plan?			X		The Project Site is located in San Joaquin Valley Air Basin (SJVAB), and under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAB is currently in nonattainment for state ozone, particulate matter 10 microns in size or smaller (PM_{10}) and particulate matter 2.5 microns in size or smaller ($PM_{2.5}$) standards. Construction activities would consist of mowing, tilling, and mechanical removal of trees. Standard tree logging equipment would be utilized for the mechanical removal of trees for the creation of the fire breaks surrounding structures and access roads. Other operational procedures include chemical and manual removal of invasive species. Given the size of the intended invasive species removal (1 acre), the chemicals used during removal would have a negligible effect on the surrounding areas. Manual removal of invasive species through grazing of non-native grasses and hand pulling of weeds would benefit soil erosion in the area once restoration practices begin. The introduction of native species in areas of vegetation removal, and in particular removal of invasive species, would create a positive impact on soil and erosion. Use of mechanized tree removal equipment and chemical pesticides would result in less than significant air quality emissions. Prescribed fires would only occur on designated burn days, in line with all applicable state and local regulations, to minimize short term smoke impacts, including applicable burn permits from the SJVAPCD and CAL FIRE. The Proposed Project would be required to comply with all SJVAPCD rules and regulations for construction. In addition, implementation of CalVTP Standard Project Requirements SPR AQ-1 Comply with Air Quality Regulations; SPR AQ-2 Submit Smoke Management Plan; SPR AQ-3 Create Burn Plan; SPR AQ-4 Minimize Dust; SP AQ-6 Prescribe Burn Safety Procedures would further ensure that grading, vegetation removal, prescribed fire, and pest management activities would reduce air quality impacts. Therefore, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan and impacts would be less than significant. Also refer to Section X.a), Hydrology and Water Quality regarding herbicide use. **Less-Than-Significant Impact**	3, 7
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and			X		The SJVAB is currently in nonattainment for state ozone, PM_{10}, and $PM_{2.5}$ standards. The Proposed Project is not expected to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	7

applicable federal or state ambient air quality standard?					The Project Site and surrounding area has a significant fire history which must be addressed under the current trend of large, damaging wildfires. Wildfires emit substantial amounts of volatile and semi-volatile organic materials and nitrogen oxides that form ozone and organic particulate matter. Additionally, direct emissions of toxic pollutants from wildfires can affect first responders and residents. The Proposed Project would reduce and remove excessive forest fuels thereby reducing the potential for future catastrophic wildfire and substantial release of air pollutants. Therefore, impacts regarding a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment would be less than significant. **Less-Than-Significant Impact**	
c) Expose sensitive receptors to substantial pollutant concentrations?			X		No long-term impact on air quality would result from the Proposed Project. Prescribed fires would only occur on designated burn days, in line with all applicable State and local regulations, to minimize short-term smoke impacts, including applicable burn permits from the SJVAPCD and CAL FIRE. Furthermore, implementation of CalVTP Standard Project Requirements SPR AQ-1 Comply with Air Quality Regulations; SPR AQ-2 Submit Smoke Management Plan; SPR AQ-3 Create Burn Plan; and SP AQ-6 Prescribe Burn Safety Procedures would reduce air quality impacts from prescribed fires on sensitive receptors. Additionally, the Proposed Project would reduce and remove excessive forest fuels thereby reducing the potential for future catastrophic wildfires and the substantial release of toxic air pollutants. Therefore, impacts regarding exposure of sensitive receptors to substantial pollutant concentrations from prescribed fires would be less than significant. **Less-Than-Significant Impact**	3
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X		No significant or long-term impact on air quality or odors would result from the Proposed Project. Prescribed fires would only occur on designated burn days, in line with all applicable state and local regulations, to minimize short term smoke impacts, including applicable burn permits from the SJVAPCD and CAL FIRE. Furthermore, implementation of CalVTP Standard Project Requirements SPR AQ-1 Comply with Air Quality Regulations; SPR AQ-2 Submit Smoke Management Plan; SPR AQ-3 Create Burn Plan; and SP AQ-6 Prescribe Burn Safety Procedures would reduce air quality impacts from prescribed fires on sensitive receptors. Additionally, the Proposed Project would reduce and remove excessive forest fuels thereby reducing the potential for future	3

					catastrophic wildfires and the substantial release of air pollutants and odors. Therefore, air quality impacts resulting from other emissions, including odors, would be less than significant. **Less-Than-Significant Impact**	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
IV. BIOLOGICAL RESOURCES *Would the project:*						
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X			A desktop review of biological databases was conducted as part of the analysis for the Proposed Project. The California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database, and the U.S. Fish & Wildlife Service (USFWS) Information for Planning and Consultation were reviewed to determine special-status species that may occur within the region. For the purpose of this IS, special-status includes species that are: ▪ Ranked by CNPS as List 1 or List 2; ▪ Listed or proposed for listing as endangered or threatened under the California Endangered Species Act and/or federal Endangered Species Act; ▪ Designated as endangered, rare, or fully protected pursuant to the California Fish and Game Code; or ▪ Designated as a Species of Special Concern by CDFW. The Project Site is currently in rural residential use and is subject to irregular disturbance with areas of dense vegetation growth. The Project Site is comprised of existing residences, access roadways, and is surrounded by National Forest lands. The Project Site is largely forested and offers habitat for wildlife species. Forested habitat on and surrounding the Project Site may provide suitable habitat for four special-status species. These species include California spotted owl, great gray owl, tree anemone, and Mariposa pussypaws as identified by the FMP, desktop analysis, and the Environmental Assessment prepared for the FMP Area. Because suitable special-status raptor nesting and foraging habitat, nesting migratory bird habitat, and suitable habitat to support special-status plants may be impacted as part of the Proposed Project, **Mitigation Measures BIO-1** and **BIO-2** are recommended to reduce impacts to less-than-significant levels. **Mitigation Measure BIO-1** includes a pre-treatment survey for special-status plants prior to Project implementation. **Mitigation Measure BIO-2** would avoid potential impacts to nesting birds by requiring a pre-construction nesting bird survey prior to construction and establishing a feasibility-based, disturbance-free buffer around active nests. With implementation of **Mitigation Measure BIO-1** and **Mitigation Measure BIO-2**, potential impacts to nesting birds, including special-status bird species, would be less than significant. **Less Than Significant with Mitigation Incorporation** **Mitigation Measures:**	1, 3, 8, 9, 10, 11, 12, 13

					BIO-1: Prior to Project implementation, all impact areas within a given treatment area shall be surveyed for special-status plant species. Plant surveys shall occur when each potential plant species is in bloom or otherwise identifiable. This may require more than one survey (e.g., an early and late-season survey). The determination of timing and number of plant survey visits shall be performed by a qualified botanist. Should the presence of federally listed plant species be identified in the surveys, impacts to federally listed or candidate plant species shall be avoided. A suitable buffer distance shall be established by a qualified botanist based upon species-specific biology and the potential of specific activities to impact plant populations. Broadcast burning of areas inhabited by herbaceous annual, stump sprouting, or geophyte species may occur once the species is dormant/has completed its annual lifecycle without constituting a direct impact. **BIO-2:** Prior to Project implementation, all impact areas within a given treatment area shall be surveyed for special-status plant species. Plant surveys shall occur when each potential plant species is in bloom or otherwise identifiable. This may require more than one survey (e.g., an early and late-season survey). The determination of timing and number of plant survey visits shall be performed by a qualified botanist. Should the presence of federally listed plant species be identified in the surveys, impacts to federally listed or candidate plant species shall be avoided. A suitable buffer distance shall be established by a qualified botanist based upon species-specific biology and the potential of specific activities to impact plant populations. Broadcast burning of areas inhabited by herbaceous annual, stump sprouting, or geophyte species may occur once the species is dormant/has completed its annual lifecycle without constituting a direct impact. The Tribe shall schedule treatment activities to avoid the active nesting season, generally extending from February 1 to September 15, of common native bird species, including raptors, that could be present within or adjacent to the Project Site, if feasible. If active nesting season avoidance is not feasible, a qualified Registered Professional Forester (RPF) or biologist shall conduct a survey for common nesting birds, including raptors. Existing records 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 Project Site. The survey area shall encompass the Project Site and the immediately surrounding vicinity viewable from the Project Site. The survey area shall 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 shall 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 shall be conducted during the active time of day for target species, typically close to dawn and/or dusk. 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 qualified RPF or biologist shall recommend a feasible strategy to avoid disturbance of active nests,	

					which may include, but is not limited to, one or more of the following: The qualified RPF or biologist shall establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities shall be implemented outside of the buffer. The buffer location shall be determined by a qualified RPF or biologist. Factors to be considered for determining buffer location shall 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 shall be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. The Tribe shall 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 shall be determined by the Tribe in coordination with the qualified RPF or biologist. The Tribe shall defer the timing of treatment in the portion(s) of the Project Site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity shall not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician. Feasible actions shall be taken by the Tribe to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies shall be determined by the Tribe based on whether implementation of this mitigation measure would preclude completing the Proposed Project within the reasonable period of time necessary to meet Proposed Project objectives. 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 Tribe shall document the reasons implementation of the avoidance strategies is infeasible. The following avoidance strategies may also be considered together with or in lieu of other actions for implementation by the Tribe to avoid disturbance to raptor nests: A qualified RPF, biologist, or biological technician shall 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) shall be implemented or a pause in the treatment activity shall occur until the disturbance behavior ceases. Trees with visible raptor nests, whether occupied or not, shall be retained.	

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or the USFWS?		X			Habitats on the Project Site consist of woodland dominated by canyon live oak, blue oak, and interior live oak, annual grassland and forbs with sporadic stands of valley oak and white oak are intermixed, and smaller areas of upper montane mixed chaparral can be found in the far northeastern corner. The Project Site is largely wooded with several residences. Three ephemeral drainages occur within the FMP Area of the Project Site and more are likely present within the Public Allotments portion of the Project Site per database review. While multiple Class III drainages and stock ponds occur, no water bodies or water courses considered waters of the U.S. are present on the Project Site. As stated in the FMP, the closest surface water body is Whisky Creek approximately 1,500 feet east from the FMP Site boundary. Surface water runoff from the Project Site generally sheet flows south into the Whisky Creek watershed and west into the Willow Creek watershed. With the implementation of **Mitigation Measure HYD-1** requiring a Pest Control Advisor (PCA) to develop written prescriptions for herbicides that would be applied to vegetation in accordance with the manufacturers' labels to prevent overspray and pooling, impacts on water quality from the use of herbicides would be less than significant. **Less Than Significant with Mitigation Incorporation**	1, 3, 11. 14, 15
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X			Per desktop review of wetland resources, State or federally protected wetlands are unlikely to be present on or adjacent to the Project Site. Therefore, no direct conversion of aquatic habitat would occur. As stated above, and in **Mitigation Measure HYD-1**, a PCA would develop written prescriptions for herbicides. The Proposed Project does not include project components, including storage of materials, within 100 feet of aquatic habitat. With the implementation of **Mitigation Measure HYD-1**, impacts would be reduced to less than significant. **Less Than Significant with Mitigation Incorporation**	1, 3, 11, 14, 15
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X		The Project Site is developed and subject to irregular and limited disturbance from ongoing residential and rural activities. Existing native soil and gravel roads occur within and bisect the Project Site. The Project Site does not serve as a significant wildlife corridor or nursery. Lands surrounding the Project Site contain significant and undeveloped mixed forest habitat that could provide suitable habitat for migrating animals or rearing of young. The Proposed Project would not alter or impact wildlife access to or use of these areas. The impact would be less than significant. **Less-Than-Significant Impact**	1, 3, 8, 9, 11, 12, 13
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X		The Proposed Project would not conflict with any local policies or ordinances protecting biological resources. There are no significant biological resources present on the Project Site. FMP elements, including vegetation removal is proposed to maintain or aim to enhance the forested habitats present within the Project Site. There would be a less-than-significant impact. **Less-Than-Significant Impact**	16

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X		There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or State habitat conservation plans that cover the area of the Project Site. Therefore, the Proposed Project would not conflict with an established or proposed conservation plan. The Project Site is outside of the areas identified as wildlife corridors key to preservation of large-scale wildlife movement. As stated above, there are no riparian habitats present and no aquatic habitats on the Project Site. Additionally, although the Project Site may facilitate wildlife movement, implementation of the Proposed Project would not significantly impact wildlife use or access to nearby undeveloped NF habitat as part of project design. **Less-Than-Significant Impact**	17

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
V. CULTURAL RESOURCES *Would the project*:						
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?		X			An archaeological record search at the Southern San Joaquin Valley Information Center (SSJVIC), Native American Heritage Commission (NAHC) record search, Tribal consultation, a field survey of the 80-acre Tribal lands (FMP Area) completed in 2000, an updated archaeological survey of the FMP Area completed in 2021, and an archaeological survey of the 92-acre Public Allotments in 2021 were used to identify cultural resources. The SSJVIC record searches found that a number of resources, predominantly bedrock mortars, lithic scatters, historic debris, and mining features, had all been recorded within the surveyed portions of the FMP Area and Public Allotments (collectively the Project Site). The archaeological surveys were completed with the assistance of Tribal members, focusing on relocation of recorded sites in the Tribal Land parcel, recordation of previously unrecorded sites known to Tribal representatives, and the systematic survey of the Public Allotments, which had not been surveyed previously. Ground surface visibility varied, pedestrian transects in the Public Allotments were no more than 20 meters apart; all bedrock outcrops were systematically examined. Findings included bedrock mortars, lithic scatters, midden soils, a low rock alignment, debris scatters behind most older residences, Tribal gathering areas (identified by Tribal members rather than being defined by archaeological methods), a historic road bed, a foot trail leading to a quartz outcropping, a concrete spring box, historic residences, and mining ditches, pits, and an adit. There are a variety of resources located within the Project Site including prehistoric food processing, midden, and lithic sites, historic debris, and mining-related resources. The prehistoric resources indicate a broad use of the landscape, frequently for long enough periods that midden deposits had time to accrue. These deposits may include information that reflects subsistence, technology and landscape adaptation over time as well as social organization and trade relationships. For that reason, the sites with an identified midden component may be eligible for listing on the California Register of Historical Resources (CRHR) for their information value. The bedrock mortar sites and lithic scatters may not contain sufficient data values to be eligible for listing as individual resources; bedrock mortars are very common in the Proposed Project region, and the data from each of these site types may be completely captured in the initial recording. The mining resources are likely all connected as part of a small-scale, local operation. Gold claims dotted the ore belt in the Sierra Nevada foothills, and gold mining as an industry does reflect the broad pattern of California history, but there do not appear to be values within the project-area sites that would make them eligible for listing on the CRHR. Similarly, the historic debris scatters represent patterns in history and some can be traced to individual families, however none appear to include values that would make	18,19, 20

					them eligible for listing on the CRHR. No archaeological testing program has been implemented on the midden sites; testing and evaluation would be required in order to formally assess their CRHR eligibility; if found eligible, impacts to these sites would be significant without a mitigation program. The presence of prehistoric resources indicates an increased potential for buried resources or human remains that could be uncovered during implementation of the Proposed Project. The presence of historic mining resources indicates an increased potential for others that were obscured during the 2021 surveys. If any artifacts, archaeological features, or human remains are encountered during grading or excavation, the mitigation measures below shall be implemented; with application of these mitigation measures potential impacts to cultural resources would be reduced to less than significant levels. **Less Than Significant with Mitigation Incorporation** **Mitigation Measures:** **CR-1:** Prior to the initiation of ground-disturbing activities, all construction personnel shall be trained in the protection of cultural resources, the recognition of buried cultural remains, and the notification procedures to be followed upon the discovery of archaeological materials, including Native American burials. The training shall be presented by an archaeologist who meets the Secretary of Interior's Standards for Prehistoric and Historic Archaeology and by a Native American representative and shall include recognition of both prehistoric and historic resources. **CR-2:** Prior to beginning of work, the construction contractor shall be given shapefiles or kmz locations and maps with resource locations to ensure avoidance to the extent feasible; if desired, construction fencing or flagging can be placed around avoidance areas as well. Should FMP implementation be desired within site limits, all such work shall be monitored by a either a professional archaeologist or Tribal Monitor. **CR-3:** All ground surface impacts within known resource locations shall be minimized to the degree possible; should it be necessary to disturb more than 3 inches below ground surface, a Phase II testing and evaluation program shall be implemented prior to ground disturbance to evaluate the impacts of the proposed work. **CR-4:** Should any cultural resources be uncovered during ground-disturbing activities, all construction shall halt within 50 feet of the find. The project proponent and lead agency shall be notified immediately, and a qualified professional archaeologist shall be retained to assess the find, recommend and implement mitigation measures, and prepare a report in accordance with current professional standards. Native American consultation shall also be undertaken as part of this mitigation measure. **CR-5:** Should human remains be uncovered during ground-disturbing activities, all construction shall halt within 50 feet of the find and the County Coroner shall be notified immediately. If the	

					Coroner determines that the remains are Native American, the provisions of the Native American Graves Protection and Repatriation Act shall apply.	
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?		X			Any potential impacts related to changes in significance of an archaeological resource on the site can be mitigated to a less-than-significant level with the incorporation of **Mitigation Measures CR-1** through **CR-5**. **Less Than Significant with Mitigation Incorporation**	
c) Disturb any human remains, including those interred outside of formal cemeteries?		X			Any potential impacts related to the discovery of human remains on the site during site disturbance can be mitigated to a less-than-significant level with the incorporation of **Mitigation Measure CR-5**. **Less Than Significant with Mitigation Incorporation**	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
VI. ENERGY *Would the project:*						
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X		Construction activities associated with the Proposed Project would consume energy primarily from fuel used by construction vehicles and equipment. Fossil fuels used for construction vehicles and other construction equipment would be used during site clearing, grading, and excavation/trenching. Fuel consumed during construction would be temporary and would not represent a significant demand on available fuel. Furthermore, there are no unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or State. After construction activities, additional energy would be consumed through vehicles and equipment associated with ongoing maintenance activities, reforestation, and biomass utilization. The use of biomass at the biomass plants located in Madera and Fresno counties, and for residential heating would result in a decreased demand for other more traditional energy resources. Therefore, no unnecessary consumption of energy resources would occur from construction or operation of the Proposed Project and impacts would be less than significant. **Less-Than-Significant Impact**	1
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X	The Proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Furthermore, the Proposed Project would provide a source of renewable energy (biomass from cut vegetation) for local and regional use. Therefore, no impact would occur. **No Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
VII. GEOLOGY AND SOILS *Would the project:*						
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: a. Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. b. Strong seismic ground shaking? c. Seismic-related ground failure, including liquefaction? d. Landslides?			X		**Earthquake Faults** Although the Project Site is located in an area that may be subject to seismic ground shaking in the future, there are no mapped surface faults on the Project Site that would have the potential to rupture. The nearest active Alquist-Priolo fault is the Ortigalita fault – a major Holocene fault in the eastern part of the San Andreas fault zone located approximately 80 miles northwest of the Project Site. The closest mapped fault to the Project Site is the Round Valley Fault, located approximately 50 miles to the northeast. The fault is actively monitored by the USGS because of its frequent seismic activity. **Seismic Ground Shaking and Seismic-Related Ground Failure, Including Liquefaction** Faults exist throughout the County; therefore, there will always be the potential for seismic ground shaking. However, as described above, the Project Site does not contain any mapped faults. The FMP Area is located within an area of light to moderate potential shaking intensity with a Modified Mercalli Intensity Scale value between IV and V – any scale value lesser than VI determines that the shaking should not damage buildings. As described below, soils on the Project Site are generally stable and therefore, it is unlikely that ground failure or liquefaction would occur on the Project Site in the future due to the overall moderately sloped topography and distance from seismic faults. As stated above, the Project Site is not labeled as being within an earthquake fault zone based on State GIS data. **Landslides** Due to relatively stable soils, moderately sloped topography, and distance from seismic faults on the Project Site, the Proposed Project would not be significantly prone to landslides and would not result in an increased risk of landslides. While the Project Site is located in an area classified with moderate potential shaking hazards associated with seismic activity, no habitable structures would be developed. Furthermore, implementation of the Proposed Project would not create conditions that would result in the risk of loss, injury or death, from rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. Therefore, impacts associated with seismicity would be less than significant. **Less-Than-Significant Impact**	21, 22, 23, 24, 25

b) Result in substantial soil erosion or the loss of topsoil?			X		Soils on the Project Site are classified by the U.S. Department of Agriculture (USDA) Web Soil Survey as Auberry-Ahwahnee and Holland-Chaix families complex and are highly susceptible to erosion. Implementation of the Proposed Project would involve grading and excavation through the removal of vegetation and creation of fuel breaks. Although the Project Site contains soil that is highly susceptible to erosion, Proposed Project activities would not create or be conducted on steep slopes or within an area that would cause erosion hazards. While the implementation of the Proposed Project would result in exposing soils as a result of developing fuel breaks, the Proposed Project includes provisions to replant various areas with native undergrowth species that would bind exposed soils limiting erosion. Some fire break areas would include exposed soils; however, these areas would be limited to those surrounding residences and roadways and would not create significant soil erosion; any minor erosion would be offset by the safety provided by the fire break and other erosion control measures described below. As described in the FMP, and applicable to the Project Site, the Tribe would also be implementing erosion control efforts through a biannual on-site review for potential erosion problems, including maintenance of low water crossings and culvert openings through the removal of sticks and vegetation that may disrupt or divert drainage crossings. Along with this, there would be annual scheduling of correction measures to address potential erosion problems prior to the rainy season, on-site examination of roads during major storm events, and community outreach to educate residents regarding their own erosion control efforts. Furthermore, implementation of CalVTP Standard Project Requirements SPR GEO-1, Suspend Disturbance during Heavy Precipitation; SPR GEO-2, Limit High Ground Pressure Vehicles; SPR GEO-3 Stabilize Disturbed Soil Area; and SPR GEO-4, Erosion Monitoring; would avoid or minimize any soil erosion that may occur during implementation of the Proposed Project. Therefore, due to provisions to address erosion in the California Forest Practice Rules, FMP, CalVTP Standard Project Requirements, impacts related to erosion would be less than significant. **Less-Than-Significant Impact**	1, 3, 26
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X		According to the USDA Web Soil Survey of the Project Site, soils on the Project Site include Auberry-Ahwahnee and Holland-Chaix families complex. These soils are generally well drained but are highly susceptible to erosion Natural Resources Conservation Service (NRCS). The groundwater table is over 80 inches deep; therefore, there is a low risk of liquefaction at the Project Site. Based on the soil types present, the impacts would be less than significant as they related to landslides, lateral spreading, subsidence, liquefaction, or collapse as a result of the Proposed Project. **Less-Than-Significant Impact**	1, 26, 27

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X		The soils on the Project Site are generally stable and are classified as having a low shrink-swell potential. Soils on the Project Site are not highly expansive and the linear extensibility of the soils is low. Therefore, the Proposed Project would not expose people or structures to substantial adverse effects from expansive soil. Impacts would be less than significant. **Less-Than-Significant Impact**	27
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X	Soil types on the Project Site primarily consist of Auberry-Ahwahnee and Holland-Chaix families complex, which is mostly comprised of coarse sandy loam. Coarse sandy loam soils are typically suitable for on-site wastewater disposal systems. However, because new on-site septic tanks or alternative wastewater disposal system are being proposed. No impact would occur. **No Impact**	26
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X			Over 600 fossils specimens are listed in the University of California Museum of Paleontology database from the County, almost all of which are Pleistocene mammals from the Fairmead Landfill locality, which is located in the Central Valley approximately 40 miles to the west of the Project Site. However, there are no known paleontological or unique geological features present on the Project Site. There is always a possibility that previously unknown unique paleontological resources or sites could be encountered during subsurface grading and excavation activities. This is a potentially significant impact. In the event that paleontological resources or sites are found, **Mitigation Measure GEO-1** would ensure that the Proposed Project would not directly or indirectly destroy a unique paleontological resource or site. After implementation of **Mitigation Measure GEO-1**, impacts to paleontological resources would be reduced to less-than-significant levels. **Less Than Significant with Mitigation Incorporation** **Mitigation Measure:** **GEO-1:** In the event of any inadvertent discovery of paleontological resources, all work within a 50-foot radius of the find shall be halted and the BIA and Tribe shall be notified. Workers shall avoid altering the materials until a professional paleontologist can evaluate the significance of the find and recommendation measures to be implemented to protect, record, or remove the discovered resources, in compliance with professional standards.	27, 29

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
VIII. GREENHOUSE GAS EMISSIONS *Would the project:*						
a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?			X		The Proposed Project would result in the removal of ladder fuels including understory shrubs and suppressed trees. This would result in a residual stand of dominant and co-dominant trees. Removal of competing vegetation in the understory would increase growing space for residual trees, which would improve their ability to sequester carbon. Carbon on the Project Site should stay near current levels over time, however the stand dynamic would change in such a way that carbon would be stored in larger diameter trees rather than small trees and shrubs. The Proposed Project would make the residual stands more resistant and resilient to catastrophic, stand-replacing fires and the release of carbon dioxide. Equipment use on the Project Site would produce negligible GHG emissions from combustion engines, which includes diesel equipment as well as chainsaws. GHG emissions from equipment use and pile burning would be less than significant due to the temporary nature of emissions from construction equipment and prescribed burning. The Proposed Project would result in the net benefit of preventing catastrophic wildfire and subsequent significant releases of GHG by maintaining sequestered carbon onsite through fuel reduction and fire resiliency treatments. Additionally, the Proposed Project would result in the net benefit of encouraging higher rates of sequestration from increased residual tree vitality and subsequent growth rates. Therefore, the Proposed Project would not result in a substantial increase in GHG emissions. Therefore, impacts associated with GHG emissions are considered less than significant. **Less-Than-Significant Impact**	31, 32
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?			X		California wildfires produce so much carbon dioxide that in any given year they can wipe out the emissions cuts that the California Air Resources Board is trying to achieve. From 2013-2015, California's estimated emissions from fires on federal land alone were greater than the cuts achieved across the state's economy (Baker, 2017). The Proposed Project is designed to reduce the chance of a large catastrophic wildfire emitting significant volumes of GHGs. In addition, residual tree growth would increase thereby shifting carbon storage from small trees and shrubs to larger overstory trees. In addition, the Proposed Project would implement CalVTP Standard Project Requirements SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process to fulfill carbon inventory requirement and measure the effectiveness of carbon sequestering from treatment activity. Therefore, the Proposed Project would not conflict with any adopted plans or policies for the reduction of GHG emissions and impacts would be less than significant.	3, 31, 32

					Less-Than-Significant Impact	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
IX. HAZARDS AND HAZARDOUS MATERIALS *Would the project:*						
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X			Implementation of the Proposed Project would require use of vehicles and machinery and therefore oil, diesel fuel, gasoline, hydraulic fluid, and other liquid hazardous materials could be used. If spilled, these substances could pose a risk to the environment or human health. The Proposed Project would also involve the use of herbicides for pest management and maintaining brush clearance, which has the potential to pose a risk to the public. These risks would be less than significant with adherence to regulatory requirements and the incorporation of the following CalVTP Administrative Standard Project Requirements: SPR HAZ-1 Maintain All Equipment, SPR HAZ-5, Spill Prevention and Response Plan, SPR HAZ-6 Comply with Herbicide Application Regulations, SPR HAZ-7 Triple Rinse Herbicide Containers, SPR HAZ-8 Minimize Herbicide Drift to Public Areas, and SPR HAZ-7 Notification of Herbicide Use in the Vicinity of Public Areas. In addition, with implementation of **Mitigation Measure HYD-1**, the potential of the Proposed Project to create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials involving the release of hazardous materials would be less than significant. Also refer to Section X. a), Hydrology. **Less Than Significant with Mitigation Incorporation**	3
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X			All fertilizers, pesticides, and other hazardous materials shall be properly stored in their manufacturer's original containers and used in accordance with manufacturer's instructions. The Project Site is located within an area of potential flood hazard but is not located within a Special Flood Hazard Area. The Project Site is not in area mapped as having unstable soils according to the USDA Web Soil Survey. As described above, risks to the public and environment due to the accidental release of hazardous materials would be less than significant with adherence to regulatory requirements and the incorporation of the following CalVTP Administrative Standard Project Requirements: SPR HAZ-1 Maintain All Equipment, SPR HAZ-5, Spill Prevention and Response Plan, SPR HAZ-6 Comply with Herbicide Application Regulations, SPR HAZ-7 Triple Rinse Herbicide Containers, SPR HAZ-8 Minimize Herbicide Drift to Public Areas, SPR HAZ-7. Notification of Herbicide Use in the Vicinity of Public Areas. In addition, with the implementation of **Mitigation Measure HYD-01**, impacts related to herbicide applications would result in less-than-significant impacts related to potential releases of hazardous materials. Also refer to Sections VII. c), Geology and Soils and X. a) and d), Hydrology and Water Quality.	3, 27, 37

					Less Than Significant with Mitigation Incorporation	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	The Proposed Project is in a rural location and is not located within one-quarter mile of an existing or proposed school. Therefore, no impact would occur. **No Impact**	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	The Project Site is not listed as a site containing hazardous materials on the Department of Toxic Substances Control EnviroStor database; the closest known hazard is the North Fork Lumber Mill, located approximately 1.2 miles to the northwest. The property was subject to a cleanup program under the RWQCB 5F – Central Valley and the case was closed in 2017. The North Fork Lumber Mill is not a Recognized Environmental Condition which would affect the Project Site. Therefore, no impact would occur. **No Impact**	33
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X	The Proposed Project is not located within an airport land use plan or within 2 miles of a public airport or private airstrip. The nearest airport is Johnston Field, approximately 4 miles south of the Project Site. Therefore, no impact would occur. **No Impact**	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X			Implementation of the Proposed Project would involve brush clearance around primary and secondary access roads and structures, as well as annual prescribed fire practices. These activities would occur adjacent to or within the Project Site and are not expected to result in lane closures. In the event of temporary lane closures within the Project Site, **Mitigation Measure TR-1**, would be implemented to ensure staging areas do not inhibit roadway use. Therefore, the Proposed Project would not result in lane closures that would affect emergency response or evacuation. Emergency access through Rainbow Drive would be maintained. Therefore, impacts on emergency response plans or evacuations would be less than significant with implementation of **Mitigation Measure TR-1**. Also refer to Section XX a), Wildfire. **Less Than Significant with Mitigation Incorporation**	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X		The Project Site is located within a Wildland Urban Interface (WUI) area and is designated as a High to Moderate Fire Hazard Severity Zone in a State Responsibility Area. The majority of the Project Site is gently sloped to the northeast. Forest management activities associated with the Proposed Project, such as use of mechanized logging equipment for fuel breaks and	3, 34, 35

					brush clearance (which could spark and ignite vegetation) and prescribed fire have the potential to exacerbate wildland fire risks. However, one of the elements of the Proposed Project is to reduce the risk of wildland fires on the Project Site and adjacent properties through the reduction of forest fuels and prescribed fire. The creation of fuel breaks and defensible space around structures and roads would facilitate the safe application of a prescribed fire event. Therefore, after the completion of the Proposed Project, wildland fire risks would be substantially reduced. In addition, the following CalVTP Administrative Standard Project Requirements would further reduce wildland fire risks associated with prescribed fire: SPR AD-1 Project Proponent Coordination, SPR AD-4 Public Notifications for Prescribed Burning, SPR HAZ-2 Require Spark Arrestors, SPR HAZ-3 Require Fire Extinguishers, and SPR HAZ-4 Prohibit Smoking in Vegetated Areas. Therefore, the exposure of people or structures to risk from wildland fires would be reduced with implementation of the Proposed Project and impacts would be less than significant. **Less-Than-Significant Impact**	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
X. HYDROLOGY AND WATER QUALITY *Would the project:*						
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X			The Project Site includes several watercourses that are tributary to Willow or Whisky Creek. The FMP Area also includes two stock ponds. The closest surface water body is Whisky Creek which is located approximately 1,500 feet east from the FMP portion of the Project Site boundary. Surface water runoff from the Project Site generally sheet flows south into the Whisky Creek watershed and west into the Willow Creek watershed. Grading, excavation, and brush clearance, associated with the Proposed Project could potentially violate water quality standards or waste discharge requirements, as construction vehicles and equipment have the potential to result in accidental discharge of pollutants into water resources. In addition, the use of herbicides has the potential to affect water quality, from runoff, leaching, drift, or spills. While the Tribe is required to adhere to the provisions of the Clean Water Act (CWA), due to the size and development of the Project Site, effects would not be considered significant and the Tribe would not be required to apply for coverage under a National Pollutant Discharge Elimination System (NPDES) Construction General Permit as the size of the Project Site would not be considered cumulatively considerable and no pollutants would be emitted into waterways. Ongoing maintenance activities would result in impacts similar to existing conditions. Current management activities are not presently affecting water quality on the Project Site. Treatment of invasive plant species would occur over approximately 1 acre and would include IPM: chemical, biological, and mechanical. With the implementation of **Mitigation Measure HYD-1**, which requires that a PCA develop written prescriptions for herbicides that would be applied to vegetation in accordance with the manufacturers' labels to prevent overspray and pooling, impacts on water quality from the use of herbicides would be less than significant. Furthermore, implementation of CalVTP Standard Project Requirements SPR HYD-1 Comply with Water Quality Regulations; SPR HYD-2 Avoid Construction of New Roads; SPR HYD-3 Water Quality Protections for Prescribed Herbivory; SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones; SPR HYD-5 Protect Non-Target Vegetation and Special-Status Species from Herbicides; and SPR HYD-6 Protect Existing Drainage Systems would further reduce impacts on surface and ground water quality to a less-than-significant level. Therefore, the potential of the Proposed Project to violate and water quality standard or otherwise substantially degrade surface or ground water quality would be less than significant with implementation of **Mitigation Measure HYD-1**.	1, 3

					Less Than Significant with Mitigation Incorporation **Mitigation Measure:** **HYD-1:** A PCA shall develop written prescriptions for herbicide use which shall require herbicides be applied in accordance with the manufacturers' labels and in such a manner as to prevent overspray and pooling within the application areas.	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X		The Project Site is located nearest to the San Joaquin Valley Groundwater Basin. The Basin is estimated to be in a groundwater overdraft of about 1.8 million-acre feet per year. Although the removal of vegetation may result in a slight short-term increase in groundwater recharge, the Proposed Project would not generate new water demands. Therefore, the Proposed Project would have a less-than-significant impact on groundwater supplies or groundwater recharge. **Less-Than-Significant Impact**	1, 36
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i) result in substantial erosion or siltation on-site or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?			X		Grading, excavation, and brush clearance associated with the Proposed Project have the potential to result in minor effects on existing drainage patterns and erosion. The Proposed Project is not expected to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation; substantially increase rate or amount of surface runoff; exceed the capacity of the stormwater drainage system; provide substantial sources of polluted runoff; or impede or redirect flood flows. Fuel breaks would be contoured such that they do not create avenues for increased erosion, vegetation removal would cause limited and localized soil disturbance, and would be sufficiently minimal that drainage patterns within the Project Site and surrounding off-site locations would be unaffected. Surface water runoff would drain to on-site streams and ponds and off-site creeks and therefore, would not impact the stormwater drainage system. Based on the existing topography and Proposed Project features to minimize erosion and polluted runoff, implementation of the Proposed Project would result in less-than-significant impacts to drainage patterns of the Project Site or area. Furthermore, implementation of CalVTP SPR HYD-1 Comply with Water Quality Regulations; SPR HYD-2 Avoid Construction of New Roads; SPR HYD-3 Water Quality Protections for Prescribed Herbivory; SPR HYD-4 Identify and Protect Watercourse and Lake Protection Zones; and SPR HYD-6 Protect Existing Drainage Systems would further reduce impacts on existing drainage patterns to a less-than-significant level. In addition, implementation of CalVTP Standard Project Requirements SPR GEO-1 Suspend Disturbance during Heavy Precipitation; SPR GEO-2 Limit High Ground Pressure Vehicles; SPR GEO-3 Stabilize Disturbed Soil Area; and SPR GEO-4 Erosion Monitoring; would further reduce erosion impacts to a less-than-significant level.	1, 3

					Refer to Response X. a) regarding polluted runoff. Refer to Response VII. b) regarding erosion. **Less-than-Significant Impact**	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X		The Proposed Project is located within a Federal Emergency Management Agency (FEMA) Flood Hazard Zone D, defined by FEMA as an "Area of Undetermined Flood Hazard," meaning that no analysis of flood hazards has been conducted but a potential flood hazard may exist. The Project Site is not located within a FEMA defined Special Flood Hazard Area (100-year floodplain). The Project Site is not located within a Special Flood Hazard Area as classified by County GIS data. Furthermore, due to the existing topography and the distance of the Project Site from the ocean or any large water body, the Project Site would not be susceptible to a tsunami or seiche. In addition, the Proposed Project would not include the storage of hazardous substances which may become inundated and released during a natural disaster. Therefore, impacts would be less than significant. **Less-Than-Significant Impact**	37
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X		The Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plans due to the Project's incremental effect on water quality and groundwater, as described in Responses X. a) and b), respectively. Therefore, impacts would be less than significant. **Less-Than-Significant Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XI. LAND USE AND PLANNING *Would the project:*						
a) Physically divide an established community?				X	The Project Site includes approximately 22 scattered residential uses surrounded by USFS lands within the Sierra NF. The Project Site is not located within the established communities of North Fork or South Fork. In addition, the Proposed Project does not include components that have the potential to physically divide an established community, such as new freeways and highways, major arterial streets, and railroad lines. Therefore, the Proposed Project would not physically divide an established community and no impact would occur. **No Impact**	19, 20, 38
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X		The FMP Area of the Project Site is Tribal Trust Land and the Public Allotments portion of the Project Site are owned by individual tribal members. Although land uses are under the governance of the Tribe, the Madera County General Plan and Zoning Map designates the FMP Area as POS. The majority of the Public Allotments are designated as RM and a portion near the intersection of County Road 233 and Cascadel Road is designated as OS. The Proposed Project would reduce the risk of fire hazards and fuel loading by implementing forest fire reduction measures, prescribed fires (annually), pest management (1 acre), reforestation (20 acres), and biomass utilization. Therefore, the Proposed Project would not conflict with, and would further the implementation of federal, State, and local plans that address wildfire hazards and forest management, watershed improvement, and climate change. Furthermore, none of the actions associated with forestry management near lands designated by the County as POS, RM, and OS would conflict with the County's POS, RM, and OS designations due to the limited nature of forest fuel reduction, prescribed fire, pest management, reforestation, and biomass utilization activities that are consistent with surrounding land use designations. These activities would include providing fuel breaks of 50 feet along primary and secondary access roads, defensible space of up to 300 feet around structures, prescribed fires, grazing, pest management, forest restoration, and biomass utilization by transport to a local biomass generation facility or for residential heating. The actions the would be implemented as a result of the Proposed Project would not prevent the County from continuing to implement existing land use policies outside of the Project Site boundaries. Furthermore, implementation of CalVTP Standard Project Requirements SPR AD-3 Consistency with Local Plans, Policies, and Ordinances; SPR AD-4 Public Notifications for Prescribed Burning; and SPR AD-6 Public Notifications for Treatment Projects would avoid or minimize any potential conflicts with adjacent County land uses.	3, 6, 39

					Therefore, impacts due to a conflict with land use plans, policies, or regulations would be less than significant. **Less-Than-Significant Impact**	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XII. MINERAL RESOURCES *Would the project:*						
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X	The USGS Mineral Resources Data System does not identify a source of minerals at the Project Site. Therefore, no impact would occur. **No Impact**	40
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X	The County of Madera's General Plan (Section 6.4. Mineral Resources) does not designate the Project Site as being a locally important mineral resource recovery site. Therefore, no impact would occur. **No Impact**	41

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XIII. NOISE *Would the project result in:*						
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X		The Proposed Project would be located on tribal lands held in trust by the Department of the Interior, BIA and owned by individual tribal members. Land use controls are under the jurisdiction of the Tribe and there are currently no approved noise standards approved by the Tribal Council. For comparison, the Madera County General Plan includes Policy 7.A.5, which limits non-transportation noises to a maximum noise exposure of 70 dBA during daytime conditions. The major noise source associated with the Proposed Project would be mechanical equipment, such as a chainsaw, that would be used during tree removal and preparation for downed trees for transport to biomass facilities. A chainsaw typically emits a noise level of approximately 110 decibels at an A rating (dBA), at 3 feet from the chainsaw. Stationary point sources of noise attenuate (lessen) at a rate of 0 to 10 dBA per doubling of distance from the source, depending on the environmental characteristics of the site (i.e., topography, type of ground surfaces, noise barriers, etc.). An attenuation factor of 7.0 dBA per doubling of distance is appropriate given the topography and ground cover (e.g., trees) surrounding the sensitive receptors. Creating a defensive space of 100 feet from the residences would result in the highest noise exposures during use of a chainsaw. Using the attenuation above, starting at 110 dBA at 3 feet, the residences would experience a sound level of 75 dBA at the exterior structure. Assuming plywood is utilized on the residences, the sound is further attenuated by 21 decibels, resulting in an exposure to the indoor residents of 54 dBA, which is equivalent to the sound of a household refrigerator. Accordingly, the highest potential noise exposure at 54 dBA during implementation of the Proposed Project, would be below the County noise criteria. Therefore, implementation of the Proposed Project would result in a less-than-significant impact in relation to noise generation. **Less-Than-Significant Impact**	3, 41, 42, 43, 44
b) Generation of excessive groundborne vibration or groundborne noise levels?			X		Implementation of the Proposed Project would result in tree removal and vegetation removal activities within 100 feet of residential structures. These activities would not result in the generation of excessive groundborne vibration or groundborne noise levels as the largest groundborne noise activity would be the felling of the trees within the defensible areas within 100 feet of residential structures. As noted in the FMP (Appendix A), the tree species are non-commercial species and are generally too small to generate substantial ground borne vibration and noise when felled. The greatest noise generator would be the use of chainsaws as assessed above. Accordingly, implementation of the Proposed Project would result in less-than-significant impacts from groundborne vibration or groundborne noise levels. **Less-Than-Significant Impact**	

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X	As noted in Section IX. e), the Proposed Project is not located within the vicinity of a private airstrip or an airport land use plan or within 2 miles of a public airport where a land use plan has not been adopted. Therefore, no impact would occur. **No Impact**	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XIV. POPULATION AND HOUSING *Would the project:*						
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X	The Proposed Project does not involve the construction of homes or extension of facilities that would directly or indirectly induce unplanned population growth. Therefore, no impact would occur. **No Impact**	1
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X	No people or housing would be displaced as a result of the Propose Project. Therefore, no impact would occur. **No Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XV. PUBLIC SERVICES *Would the project:*						
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire Protection? Police Protection? Schools? Parks? Other Public Facilities?			X		The Proposed Project does not involve housing or other uses that would increase population and therefore require the provision of new or altered government facilities. The additional number of workers and the use of mechanized logging equipment (which has the potential to spark and ignite vegetation) could result in an incremental increase in the number of calls for law enforcement and fire protection services. However, this would represent a less than significant increase in demand and therefore, is not expected to result in unacceptable service ratios or response times or construction of new facilities. The potential increase risk of fire during implementation of the Proposed Project would be minimal because fire breaks are being created. After the completion of the Proposed Project, fire protection services would be positively affected as the risk of wildfires would be reduced. Impacts to schools, parks, or other public facilities are not anticipated due to the lack of additional population to the Project Site. Therefore, impacts on government facilities would be less than significant. **Less-Than-Significant Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XVI. RECREATION *Would the project:*						
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X	The Proposed Project does not include components that would increase the use of existing parks or other recreational facilities. Therefore, no impact would occur. **No Impact**	1
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X	The Proposed Project does not include recreational facilities and would not require the construction or expansion of recreation facilities. Therefore, no impact would occur. **No Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XVII. TRANSPORTATION *Would the project:*						
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?		X			Access to the Project Site would be provided from Cascadel Road to Mission Drive. Grading, excavation, and brush clearance activities associated with the Proposed Project would generate new trips from construction and worker vehicles, estimated to be approximately 15 trips per day. Vehicle trips would be intermittent and construction activities would be conducted within the Project Site. Although, no roadway closures are anticipated, **Mitigation Measure TR-1** would ensure staging areas do not inhibit roadway use and implement flagging should activities require temporary lane closures. After initial construction activities, ongoing maintenance of cleared areas and transportation of biomass materials would generate a negligible increase in vehicle trips that would not affect the traffic flow on adjacent roadways. The Proposed Project would not have an effect on transit, bicycle, or pedestrian facilities, due to the limited extent of grading, excavation, and brush clearance activities. Therefore, there would be no conflict with plans or policies addressing such facilities. As described above, because the Proposed Project could temporarily impact roadway circulation, **Mitigation Measure TR-1** is recommended. With implementation of **Mitigation Measure TR-1**, impacts would be less than significant. **Less Than Significant Impact with Mitigation Incorporation** **Mitigation Measure:** **TR-1:** Implementation of the FMP shall avoid lane closures to the extent possible. Should lane closures be required, flagging shall be provided when necessary to assist with traffic control.	1
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X		The Office of Planning and Research (OPR) Technical Advisory contains screening thresholds for land use projects and suggests lead agencies may screen out vehicle miles travelled (VMT) impacts using project size, maps, and transit availability. For small land use projects, absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, and projects that generate or attract fewer than 110 trips per day generally, may be assumed to cause a less-than-significant impact. As described above, the Proposed Project would generate a maximum of 15 trips per day from construction vehicles associated with grading and excavation, brush clearance, and worker trips. Therefore, as the number of additional trips generated by the Proposed Project is below the 110-trip screening threshold for VMT impacts contained in the OPR Technical Advisory, the Proposed	1

					Project would cause a less-than-significant transportation impact related to vehicle miles traveled. **Less-Than-Significant Impact**	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	The Proposed Project would include fuel breaks on each side of primary and secondary access roads. The fuel breaks and associated brush clearance and grading activity would not increase hazards or create incompatible uses. Therefore, no impact would occur. **No Impact**	1
d) Result in inadequate emergency access?		X			As described above, grading, excavation, and brush clearance activities associated with the Proposed Project have the potential to temporarily impede access. Although no roadway closures are anticipated, **Mitigation Measure TR-1** would ensure staging areas do not inhibit emergency access. With implementation of **Mitigation Measure TR-1**, impacts would be less than significant. **Less-Than-Significant Impact with Mitigation Incorporation**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XVIII. TRIBAL CULTURAL RESOURCES *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*						
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X			Tribal consultation was undertaken prior to the FMP Area field surveys; Montrose coordinated with Tribal Vice-Chairperson Christina McDonald, who identified the locations of several unrecorded resources. Two Tribal members assisted with the Public Allotments survey. The Project Site includes a number of bedrock mortar, lithic scatter, and midden sites, none of which were identified as tribal cultural resources during consultation. **Mitigation Measures CR-1** through **CR-5** would reduce any tribal-cultural related sites or features that might be unearthed during site disturbance to a less-than-significant level. **Less Than Significant with Mitigation Incorporation**	19, 20
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X			The Archaeological Study undertaken for the Project Site yielded evidence of historic and prehistoric tribal usage, however no significant sites, features, or artifacts were discovered. **Mitigation Measures CR-1** through **CR-5** would reduce any tribal-cultural related sites or features that might be unearthed during site disturbance to a less-than-significant level. **Less Than Significant with Mitigation Incorporation**	18, 19, 20

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XIX. UTILITIES AND SERVICE SYSTEMS *Would the project:*						
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X	The implementation of the Proposed Project would not result in a greater need for or expansion of existing utilities. No existing utilities would be affected by fuel break and brush clearance activities. Therefore, no impact would occur. **No Impact**	1
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X	Although the San Joaquin Valley Groundwater Basin is in overdraft, no new water demand would result from implementation of the Proposed Project. Therefore, no impact would occur. **No Impact**	1, 36
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X	The Proposed Project would not require wastewater treatment. Therefore, no impact would occur. **No Impact**	1
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X	The Proposed Project would not generate any solid waste that would be disposed of at municipal solid waste facilities. Vegetative waste from the creation of fire breaks and tree logging would either be transported to a biomass facility or used for residential heating. Therefore, no impact would occur. **No Impact**	1
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X	The Proposed Project would not generate solid waste that would need to be disposed of at a solid waste facility. Therefore, no impact would occur. **No Impact**	1

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XX. WILDFIRE *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*						
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?		X			The Madera County Operational Area Emergency Operations Plan establishes multi-agency and multi-jurisdictional coordination and response during emergency situations within the County. The Proposed Project would involve brush clearance around primary and secondary access roads and structures, as well as annual prescribed fire practices. These activities would occur adjacent to or within the Project Site and are not expected to require lane closures. In the event of temporary lane closures within the Project Site, **Mitigation Measure TR-1**, would be implemented to ensure staging areas do not inhibit roadway use. Therefore, the Proposed Project would not result in lane closures that would affect emergency response or evacuation. Emergency access through Rainbow Drive would be maintained. The Proposed Project would adhere to all State, federal, and local fire requirements regulations. In addition, implementation of CalVTP Standard Project Requirements SPR AD-3 Consistency with Local Plans, Policies, and Ordinances and SPR AD-4 Public Notifications for Prescribed Burning would reduce any potential conflicts with an adopted emergency response plan or evacuation plan. Therefore, impacts on emergency response plans or evacuations would be less than significant with implementation of **Mitigation Measure TR-1**. **Less Than Significant with Mitigation Incorporation**	1, 3, 45
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X		The Project Site is located within a WUI area bordering the Sierra National Forest and is designated as a moderate to high fire hazard within a State Responsibility Area. The topography of the Project Site ranges from approximately 2,980 feet to approximately 3,450 feet, sloping to the northeast. The majority of the Project Site has gentle slopes with the steepest sloes (>35%) located in the northeastern portions of the FMP Area of the Project Site. There are approximately 25 residences and numerous outbuildings located on the Project Site. Forest management activities associated with the Proposed Project, such as use of mechanized logging equipment for fuel breaks and brush clearance (which could spark and ignite vegetation) and prescribed fire have the potential to exacerbate wildfire risks. However, one of the elements of the Proposed Project is to reduce the risk of wildfire on the Project Site and adjacent properties through the reduction of forest fuels and prescribed fire. The creation of fuel breaks and defensible space around structures and roads would facilitate the safe application of a prescribed fire event. Therefore, after the completion of the Proposed Project, wildfire risks would be substantially reduced. In addition, the following CalVTP Administrative Standard Project Requirements	1, 2, 3, 34, 35

					would further reduce wildfire risks associated with prescribed fire: SPR AD-1 Project Proponent Coordination, SPR AD-4 Public Notifications for Prescribed Burning, SPR HAZ-2 Require Spark Arrestors, SPR HAZ-3 Require Fire Extinguishers, and SPR HAZ-4 Prohibit Smoking in Vegetated Areas. Therefore, wildfire risk would not be exacerbated but would be reduced with implementation of the Proposed Project and the potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire is less than significant. Also refer to Section III, regarding pollutant concentrations from a wildfire. **Less-Than-Significant Impact**	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X		The Proposed Project would require fuel breaks associated with the primary and secondary access roads and ongoing maintenance of the fuel breaks. While the removal of vegetation and grading would result in impacts on biological resources, cultural and paleontological resources, hazards, hydrology and water quality, transportation, and tribal cultural resources, these impacts would be less than significant with implementation of mitigation measures. Refer to Sections IV, Biological Resources; V, Cultural Resources; VII, Geology and Soils; X, Hydrology and Water Quality; XVII, Transportation; and XVIII, Tribal Cultural Resources regarding these resources. Implementation of the Proposed Project would reduce fire risk and restore forest health through forest fuel reduction, prescribed fire, pest management, and reforestation. Therefore, impacts associated with exacerbated fire risks or ongoing impact to the environment would be less than significant. **Less-Than-Significant Impact**	1
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X		As discussed in Section VII, Geology and Soils, the Project Site has a very high runoff potential and is highly susceptible to erosion. The Project Site is not susceptible to landslides due to its moderately sloped topography. As discussed in Section X, Hydrology and Water Quality, the Project Site may have a potential flood hazard. Due to the limited areas of grading, associated with fuel breaks and brush clearance and the relatively flat topography where these activities would occur, the Proposed Project would not significantly alter drainage patterns. In addition, implementation of the Proposed Project would reduce the risks of people and structures to risks from wildfires and associated post-fire slope instability or drainage changes. As part of the FMP and applicable to the Public Allotments, erosion control measures on gravel and dirt roads would include: on-site review on at least a biannual basis for potential erosion problems, annual scheduling of corrective measures prior to winter rains, onsite examination of road surfaces during major storm events, education to prevent erosion damage.	1

					Furthermore, impacts associated with water runoff and erosion would be less than significant with implementation of CalVTP Standard Project Requirements and regulatory requirements referenced in Sections VII, Geology and Soils and X, Hydrology and Water Quality. Therefore, the Proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impacts associated with these risks would be less than significant. **Less-Than-Significant Impact**	

Impact Categories*	1	2	3	4	All determinations need explanation. Reference to documentation, sources, notes and correspondence.	Source Number**
XXI. MANDATORY FINDINGS OF SIGNIFICANCE						
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X			As discussed in the previous sections, the Proposed Project could potentially have significant environmental effects with respect to Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, Tribal Cultural Resources, and Wildfire. However, the impacts of the Proposed Project would be reduced to a less-than-significant level with the implementation of the mitigation measures identified in the sections. **Less Than Significant with Mitigation Incorporation**	ALL
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X			Cumulative impacts have been considered within the analysis of each resource area; in particular where significant impacts have been identified for the Proposed Project (Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, Tribal Cultural Resources, and Wildfire). Where appropriate, CalVTP Standard Project Requirements and/or mitigation measures have been identified to reduce all potential impacts to a less-than-significant level. **Less Than Significant with Mitigation Incorporation**	ALL
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X			The potential direct environmental effects of the Proposed Project for each resource area, but in particular where significant impacts have been identified for the Proposed Project (Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, Tribal Cultural Resources, and Wildfire). Where appropriate, CalVTP Standard Project Requirements and/or mitigation measures have been identified to reduce all potential impacts to a less-than-significant level. **Less Than Significant with Mitigation Measures Incorporation**	ALL

* Impact Categories defined by CEQA

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APPENDIX A.
FOREST MANAGEMENT PLAN

North Fork Rancheria

Forest Management Plan

January 2022



Analytical Environmental Services

In cooperation with

Environmental Resources Management

North Fork Rancheria

Forest Management Plan

January 2022

Approved:_____, 2022

_____

Fred Beihn, Tribal Chairperson
North Fork Mono Rancheria

by Tribal Resolution No._____

Approved:_____, 2022

_____

Amy Dutschke, Regional Director
Pacific Regional Office

Table of Contents

Introduction 3

Site Description

- Location and Topography 6
- Soils 7
- Climate 12
- Forest and Vegetation Types 13
- Utilization of and Economic Value of Forest Resources 14
- Historical Fire Impacts 16

Summary of Inventory

- Sampling Procedures 17
- Inventory Results 18
- Vegetation Characteristics 19
- Growth 20

Forest Description

- Forest Conditions 21
- Guidelines for Fuel Wood Harvesting 24

Protection

- Ordinance and Standards 25
- Fire 26
- Invasive Species 31
- Insect, Disease and other Conditions 38
- Trespass 39

Forest Land Management

- Resource Inventory 40
- Roads 42
- Streams, Wetlands and Ponds 42
- Fire 43
- Wildlife and Fisheries 43
- Archaeological Resources 43

Management Activities and Impacts 45

Environmental Assessment 49

Description of Potential Environmental Impacts 50

Management Alternatives 54

References 58

Appendices

- General Vicinity Map 59
- General Vicinity 2020 Aerial Map 60

Attachments

- Listed and Protected 61

Introduction

This Forest Management Plan (FMP) was developed for the North Fork Rancheria of Mono Indians of California (Tribe) in accordance with the Department of the Interior, Bureau of Indian Affairs, Division of Forestry and Wildland Fire Management's Indian Forest Management Handbook, Chapter 2 of 53 Indian Affairs Manual (53 IAM 2-H). The Plan supports the Mission Fire Recovery (MFR) tribal project and was prepared in cooperation with Montrose - Analytical Environmental Services (Montrose-AES). The North Fork Rancheria property meets the definition of Category 3 in the Forest management Planning Handbook (53 IAM 2.8A)

Category 3. Significant Woodland Reservation. Includes significant woodland reservations comprised of an identifiable trust or restricted forest area of any size which is lacking a timberland component, and whose forest resource is determined by the Regional Director to be of significant commercial woodland value (25CFR 163.36(b)(3)). **Background**

The North Fork Rancheria of Mono Indians of California (Tribe) , is a federally recognized tribe as determined under 25 CFR Part 83 and listed in 63 FR 71941. The Tribal government was created by the "Constitution of the North Fork Rancheria," adopted May 18, 1996. The Tribal land subject to this FMP is comprised of 80 acres in the Town of North Fork, Madera County, California.

The Tribe is a subrecipient of a grant awarded to Yosemite Sequoia Resource Conservation and Development Council through the California Department of Forestry and Fire Protection (CALFIRE) California Climate Investments (CCI) Forest Health Grant program. The tribe is interested in the benefits achieved with the grant, due to recent fire events. The tribe hopes to achieve its long term goals of vegetation management and fuel reduction, maintenance of fire breaks associated with structures, and maintenance of fire breaks associated with access roads.

BIA Trust Responsibility

Tribal Trust Lands are considered private property held in trust by the Department of the Interior. As trustee, one of the duties of the Bureau of Indian Affairs is to work with tribes to assist in the proper management of tribal forest resources. Thus, tribal goals and BIA policies must be coordinated. Accordingly, the National Indian Forest Resource Management Act of 1990 (Public Law 101-360), mandates that all management activities on Tribal trust forest lands be consistent with an approved FMP.

Tribal Goals and objectives.

The purpose of MRF project is to develop an FMP with goals and objectives to

- Restore areas that have experienced high severity wildfires,
- Reforest areas that have experienced high severity wildfires and dramatic tree mortality to promote ecosystem biodiversity and connectivity ,
- Restore critical forest carbon stocks,
- Implement strategic fuel treatments that address public safety hazards,
- Prepare for future prescribed fire and reforestation efforts,
- Utilize strategic planning
    - LIDAR mapping analysis, and
    - technical assistance from diverse partners to facilitate climate-informed and science-based restoration in the region over the next ten years.

Elements of the FMP include:

- Forest fuels reduction
- Prescribed fire
- Pest management
- Reforestation
- Biomass utilization

Proposed Action

The tribe proposes the following forest management actions be incorporated into this FMP:

1. reduce 140 acres of fuels (within the 80-acre FMP area and the 92-acre adjacent community area)
2. conduct ten acres of prescription fire annually
3. eradicate one acre of invasive species such as starthistle, Scotch Broom, tree-of-heaven and Klamathweed
4. conduct 20 acres of site preparation for reforestation practices, and
5. transport some of the cut fuels to a local bio generation facility for woody biomass utilization.

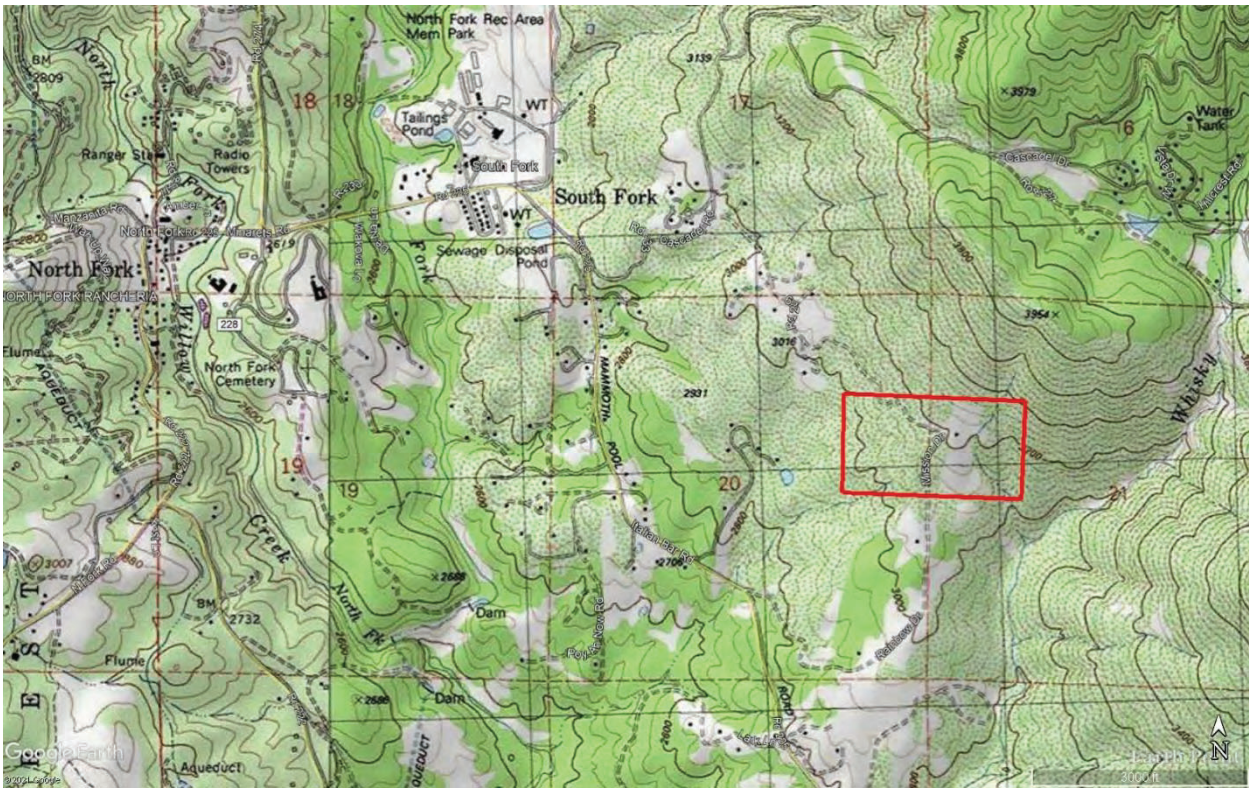
Mission Fire Recovery

North Fork Rancheria Forest Management Plan

Site Description

Location and Topography

The 80-acre FMP area is in Madera County, California, 1.5 miles southeast of the town of South Fork. The legal description of the FMP area is: portions of section 20 SE ¼ of the NE ¼ and the SW ¼ of the NW ¼ T8S R23E MDB&M. Access is via paved and gravel surfaced roads off Cascadel Road (County Road 233). There are two residences on the property. The topography of the FMP area is gentle, with the steepest ground (>35% slopes) found in its northeastern portions. The FMP area sits on a gentle ridge between two watersheds defined by Cal Water: Lower Willow Creek 6540.210510 and Lower Whiskey Creek 6540.210401. Elevations within the FMP area range from 3,450 feet in the northeast corner of the property to 2,980 feet in the southwest corner. The FMP area is surrounded on all sides by Sierra National Forest lands and can be located on the Cascadel Point USGS 7.5' quadrangle.



Soils

The USDA, NRCS Custom Soil Resource Report shows two soil types. See the following link https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx .

Map unit symbol	Map unit name	Acres	Percent
107	Auberry-Ahwahnee Families association, 5-35% slopes	51	63
139	Holland-Chaix Families complex, 35-65% slopes	30	37
Total		80	100



9

107—Auberry-Ahwahnee families association, 5 to 35 percent slopes

Map Unit Setting

National map unit symbol: hlyn
Elevation: 1,000 to 2,800 feet
Mean annual precipitation: 25 to 30 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 150 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

*Auberry family and similar soils:*55 percent
*Ahwahnee family and similar soils:*35 percent
*Minor components:*10 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Auberry Family

Setting

Landform: Ridges
Landform position (two-dimensional): Foot slope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from granodiorite

Typical profile

H1 - 0 to 8 inches: coarse sandy loam
H2 - 8 to 17 inches: coarse sandy loam
H3 - 17 to 29 inches: clay loam
H4 - 29 to 62 inches: coarse sandy loam
H5 - 62 to 79 inches: weathered bedrock

Properties and qualities

*Slope:*5 to 35 percent
*Depth to restrictive feature:*62 to 66 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.01 to 0.14 in/hr.)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (non-irrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Ahwahnee Family

Setting

Landform: Ridges
Landform position (two-dimensional): Foot slope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Concave

Parent material: Residuum weathered from granodiorite

Typical profile

H1 - 0 to 17 inches: coarse sandy loam
H2 - 17 to 29 inches: sandy loam
H3 - 29 to 60 inches: weathered bedrock

Properties and qualities

Slope: 5 to 35 percent
Depth to restrictive feature: 29 to 33 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.01 to 0.14 in/hr.)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (non-irrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Unnamed, thick dark surface

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed, shallow

Percent of map unit: 3 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent
Hydric soil rating: No

139—Holland-Chaix families complex, 35 to 65 percent slopes

Map Unit Setting

National map unit symbol: hlzp
Elevation: 2,700 to 5,550 feet
Mean annual precipitation: 30 to 40 inches
Mean annual air temperature: 46 to 59 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Holland family and similar soils: 60 percent
Chaix family and similar soils: 20 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Holland Family

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Upper third of mountain flank
Down-slope shape: Concave

Across-slope shape: Concave
Parent material: Residuum weathered from granodiorite

Typical profile

H1 - 0 to 7 inches: sandy loam
H2 - 7 to 60 inches: sandy clay loam
H3 - 60 to 66 inches: sandy loam
H4 - 66 to 79 inches: weathered bedrock

Properties and qualities

Slope: 35 to 65 percent
Depth to restrictive feature: 66 to 70 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr.)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (non-irrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Chaix Family

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Upper third of mountain flank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from granodiorite

Typical profile

H1 - 0 to 6 inches: coarse sandy loam
H2 - 6 to 36 inches: coarse sandy loam
H3 - 36 to 60 inches: weathered bedrock

Properties and qualities

Slope: 35 to 65 percent
Depth to restrictive feature: 36 to 40 inches to paralithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr.)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (non-irrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Unnamed, moderately deep
Percent of map unit: 5 percent
Hydric soil rating: No
Tollhouse family
Percent of map unit: 5 percent
Hydric soil rating: No
Rock outcrop
Percent of map unit: 5 percent
Hydric soil rating: No
Chawanakee family
Percent of map unit: 5 percent
Hydric soil rating: No
Custom Soil Resource Report 17

Under the interpretive group land capability classes and subclasses soils are listed as (USDA land Capability Classification)

107 Auberry-Ahwahnee 6e

Class 6 soils have severe limitations that make them unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

Subclass “e” is made up of soils for which the susceptibility to erosion is the dominant hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in the subclass.

139 Holland-Chaix families 7e

Class 7 soils have very severe limitations that make them unsuited to cultivation and that restrict their use to grazing, forest land, or wildlife.

Subclass “e” is made up of soils for which the susceptibility to erosion is the dominant problem of hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in the subclass.

Interpretation

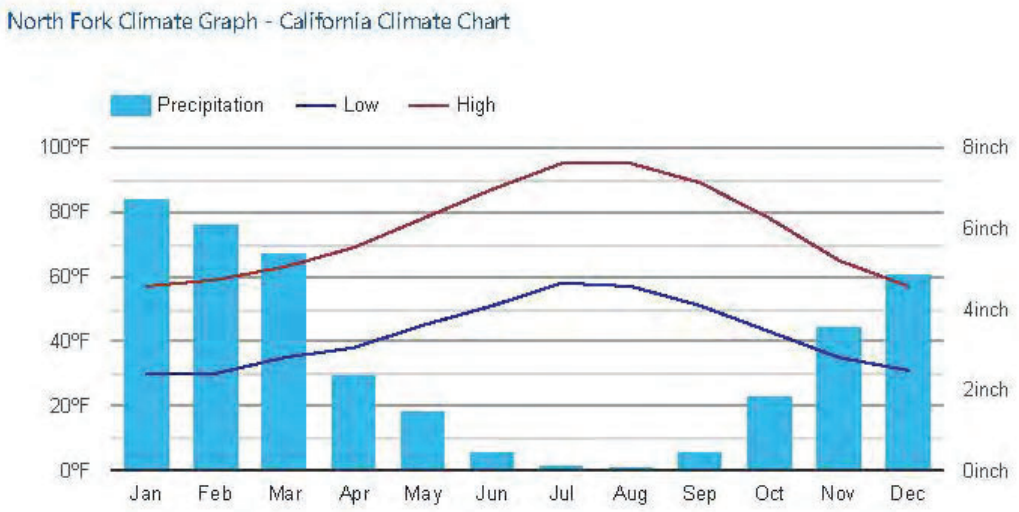
107 Auberry-Ahwahnee soils depth ranges from 29 to 60 inches to weathered bedrock. Slope ranges from 5 to 35%. Runoff is extremely high, land classification is 6e, unsuited for cultivation, primary use is pasture, range, and forestland.

139 Holland-Chaix soils depth ranges from 30to 60 inches to weathered bedrock. Slope ranges from 35 to 65%. Runoff is high, land classification is 7e, unsuited for cultivation, primary use is grazing and forest land.

Onsite review of the vegetation, slopes and soil characteristics confirm the web soil analysis. Due to the almost complete absence of commercial conifer trees on the property and the fact that no evidence of a past presence of commercial forest exists, it is strongly suggested that the planting of a commercial forest not be undertaken.

Climate

The property is in the foothills of the Sacramento Valley. Slope aspect is south to southwesterly. Precipitation is primarily in the form of rain and averages 33.5 inches annually. Mean annual temperatures average from a high of 74 degrees to a low of 42 degrees Fahrenheit (www.usclimatedata.com).



Forest and Vegetation Types

80% of the FMP Area (65 acres) supports woodland dominated by canyon live oak, blue oak, and interior live oak. Gray pine, ponderosa pine, buckeye, and black oak comprise a very small percentage of co-dominant trees. The additional fifteen acres is dominated by annual grasses and forbs with sporadic stands of valley oak and white oak intermixed. A small area of upper montane mixed chaparral can be found in the far northeastern corner.

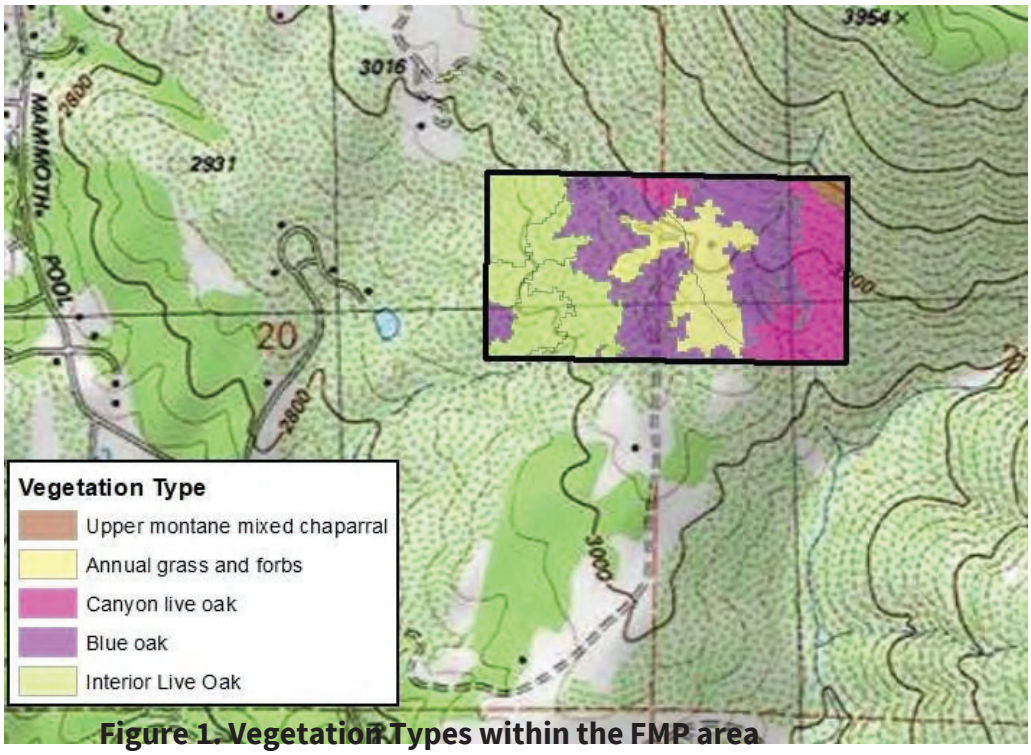


Figure 1. Vegetation Types within the FMP area

Table 1. Summary of Acreages, by Cover Types*	
Interior Live Oak	22 acres
Blue Oak	29 acres
Canyon Live Oak	14 acres
Annual Grasses and Forbs	13 acres
Upper Montane Mixed Chaparral	2 acres

* National Forest Service Regional Vegetation Classification (CALVEG)



Figure 2. Annual Grass and Forbs Vegetation Type

Utilization of and economic value of Forest Resources

The woodland acreage of the FMP area shows past use for the cutting of firewood. This does not appear to have been done on a commercial basis, nor would the soils support commercial firewood harvest. The small acreage (65 acres of woodland canopy) and the small diameters associated with the dominant hardwood species would not be economically or environmentally practical.

Utilization of and economic value of grasslands

Approximately 10-15 acres of the FMP area is comprised of annual grasses and forbs. Annuals complete their growth cycle in a single growing season and reproduce only by seed whereas perennial grasses reproduce vegetatively as well as by seed. Seeds represent the major storage organ for excess photosynthate. With no storage organs, such as rhizomes, stolons, or tubers, there is no means for vegetative reproduction. Many introduced (naturalized) annual grasses, such as Mediterranean barley (*Hordeum murinum*) are water inefficient and put all of their energy into growing during the wet season. Perennials, on the other hand, are more water efficient.

Perennial grasses once dominated grasslands throughout California. Unlike annual grasses, perennial grasses turn green faster, stay green longer, and produce more biomass. This equates to more protein and higher value forage for both wildlife and livestock.

Portions of the FMP area that are currently dominated by annual grasses can be restored to perennial grasslands, which are better forage for cattle, as well as providing cultural material.

Historical Fire Impacts

Historical GIS data from the Forest Resource Assessment Program (FRAP The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program assesses the amount and extent of California's forests and rangelands, analyses their conditions and identifies alternative management policy guidelines.) indicates a considerable number of fires within the region over the past century. The fires that impacted United States Forest Service lands in the early part of the last century ("USFS fires") were unnamed, and tended to be smaller in size, even given the fact that fire suppression tactics and available equipment at the time were minimal compared to modern era firefighting (larger fire crews, quicker response times, and air resources).

- 1916 unnamed USFS fire, 6,239 acres
- 1917 unnamed USFS fire, 241 acres
- 1922 unnamed USFS fire, 25,016 acres
- 1924 unnamed USFS fire, 5,202 acres
- 1931 unnamed USFS fire, 640 acres
- 2001 North Fork Fire, 4,130 acres
- 2008 Cascadel Fire, 38,363 acres
- 2015 Willow Fire, 5,701 acres
- 2017 Mission Fire, 988 acres
- 2020 Creek Fire, 379,882 acres

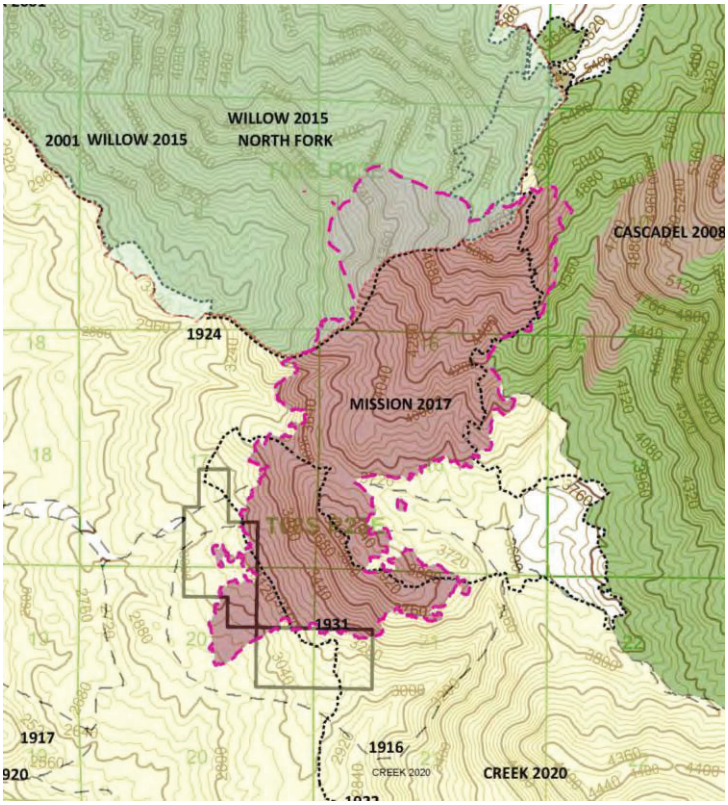


Figure 3. Fire History within FMP Area

Summary of Inventory

Review of the previous Forest Management Plan and prior inventory (1997) indicated that a reconnaissance-based inventory was completed. No forest survey was performed prior to the 1997 survey. An excerpt from that report concludes.

> "The 1997 reconnaissance-based inventory estimates that approximately 45 acres of the oak woodland type contains +/-50 square feet of basal area (BA), with trees averaging 35 feet tall and 14 inches in diameter at breast height (DBH). Average per acre stocking in these areas runs around 795 gross cubic feet of hardwoods. The remaining 20 acres of QW contain 200 feet BA with similar sized trees. These areas are estimated to be carrying around 3,180 gross cubic feet of hardwoods. Altogether, the QW type contains 108,830 cubic feet of live oak, with an average stocking of 1,600 cubic feet per acre."

This information was used as a starting point in determining current inventory.

Sampling procedures

Review of the aerial photography indicated that a commercial forest canopy does not exist on the property. Onsite review of the FMP area confirmed this determination. A focused sampling procedure was implemented on June 29 and June 30, 2021.

Sixteen (16) 1/5-acre plots were placed on two strips at 5 chain (330') intervals on the 80-acre property.

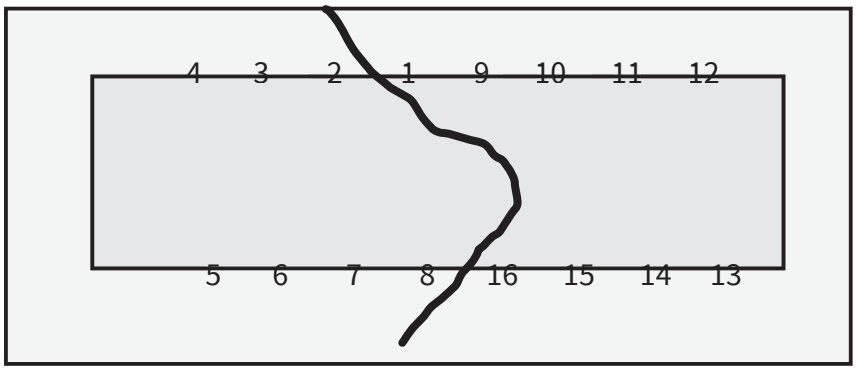


Figure 4. Sampling, 5 chain grid (330')

This cruise design amounted to a 4% inventory of the property (3.2 acres). In addition, smaller 1/100th acre plots were used to determine seedling and sapling stocking levels as well as fuel and vegetation levels. Canopy coverage, brush coverage and grass coverage were also recorded. The following chart contains the collected data.

Inventory Results

Table 2. Results of 2020 forest inventory sample

Species	Basal Area (SQFT)	Percent Cover (%)	Average Diameter (inches)	Average Height (FT)	Volume (CUFT)
Live Oak	37.32	73.1	9	30	731
Gray Pine	8.32	16.3	25	61	163
White Oak	2.3	4.5	18	46	45
Black Oak	1.67	3.3	18	42	33
Ponderosa Pine	0.82	1.6	22	40	16
Buckeye	0.37	0.7	6	13	7
Manzanita	0.17	0.3	7	20	3
Blue Oak	0.11	0.2	8	20	2
Total	*51.08*	*100*			

The inventory includes two pine tree species - gray pine, which has no lumber value, and ponderosa pine. The ponderosa pine comprises an exceedingly small percentage of the inventory. Due to their value and small percentage of the overall inventory their basal area is being treated the same as the hardwoods. All hardwoods have been grouped together in considering the per acre cubic foot volume.

The Site index of 30 is based on the height (30') of a 10" tree. This is a poor site classification and is supported by the soil descriptions mentioned earlier. (Oak stand growth on California's hardwood rangelands, California Agriculture, July August 1988).

Vegetation characteristics

Table 3. Average Attributes					
Species	**DBH (inches)**	**Crown Diameter (Feet)**	**Live Crown Ratio (%)**	**Height (Feet)**	**Abundance (%)**
Black Oak	18	35	53	42	3
Blue Oak	8	10	40	20	0
Buckeye	6	23	36	13	1
Gray Pine	25	29	49	61	16
Interior Live Oak	9	25	33	30	73
Manzanita	7	20	20	20	0
Oregon White Oak	18	55	58	46	5
Ponderosa Pine	22	25	80	40	2
Average	**9.3**	**26**	**34**	**30**	**100**

Table 4. 1/100th Acre Sampling Results		
	%	**Height (Feet)**
Average Shade Canopy	45	30
Average Shrub Canopy	35	3
Average Grass Cover	61	
Aspect	SW	
Slope	20%	

Table 5. Relative abundance of shrubs	
Species	**Abundance %**
Poison oak	10
Buckeye	9
Mountain Mahogany	3
Yerba santa	3
Manzanita	3
Laurel	2
Mountain misery	2
Plum	1
Tree-of-Heaven	1
Cherry	1
Buckthorn	1
Gooseberry	1
Cherryleaf buckthorn	1

Growth

The current survey shows an average of 51 square feet of basal area per acre. This is less than the 1997 inventory of 78 square feet per acre. This difference could be due to fire impacts related to the 2017 and 2020 fires, or to the updating of the inventory based on plot information rather than aerial photo interpretation. Growth was estimated in the original inventory at 10-15 cubic feet per acre per year. This estimate is still valid with this current inventory.

Note: The current inventory treated each stem DBH (Diameter Breast Height) of a multi-stem tree individually. This would explain the larger diameter used in the original 1997 inventory.

Forest Description

Forest Condition

There did not appear to be any significant forest health concerns within the FMP area other than impact from the recent fires. Oak mistletoe is present in lesser amounts on the flats just east of the access road (Mission Drive).

Fires in 2017 and 2020 impacted most of the FMP area. The fires have had a significant impact on the presence of ground and ladder fuels. A sizable portion of the property burned at a low intensity while only a small area burned with much greater intensity (in the northeastern portion of the property). In those areas where fire was lower intensity, many of the ladder fuels (in the form of brush, saplings, and lower limbs) are dead, but still present (in some cases with dead leaves still being retained on vegetation). The overstory canopy was not significantly impact by these fires.



Figure 5. Interior Live Oak Vegetation Community with intersperses buckeye and gray pine

Significant re-sprouting of fire-damaged hardwood species is taking place because of these fire events. These sprouts will eventually thin themselves out but occupy a presence in the understory. Naturalized annual Mediterranean grasses are present and have resprouted after the fire. These dry annual grasses present a significant source of ground fuel for future fire events. Evidence of current cattle grazing was not found. Evidence of past grazing was seen in the form of old fencing.

Due to the nature of re-sprouting hardwoods, fuel levels are moderate to high. There is evidence of fuel management along the primary access road (Mission Drive) and surrounding both residences in the FMP area.

Commercial conifer stocking within the area is low. Ponderosa pine represents less than 2% of the forest canopy species found on the property. No ponderosa pine seedlings were found during the inventory of the property.

The woodland vegetation that comprises the eastern slopes of the Sacramento Valley is a fire dependent species. This vegetation has developed over many millennia with fire as a major component of the ecosystem. As land stewards we need to recognize that fire will and should continue to play a key role in the landscape. As such, the implementation of a fuel break along the major access road through the FMP area and the nearby community area, and the defensible space around structures is required to protect infrastructure associated with human occupation. See Protection section below.

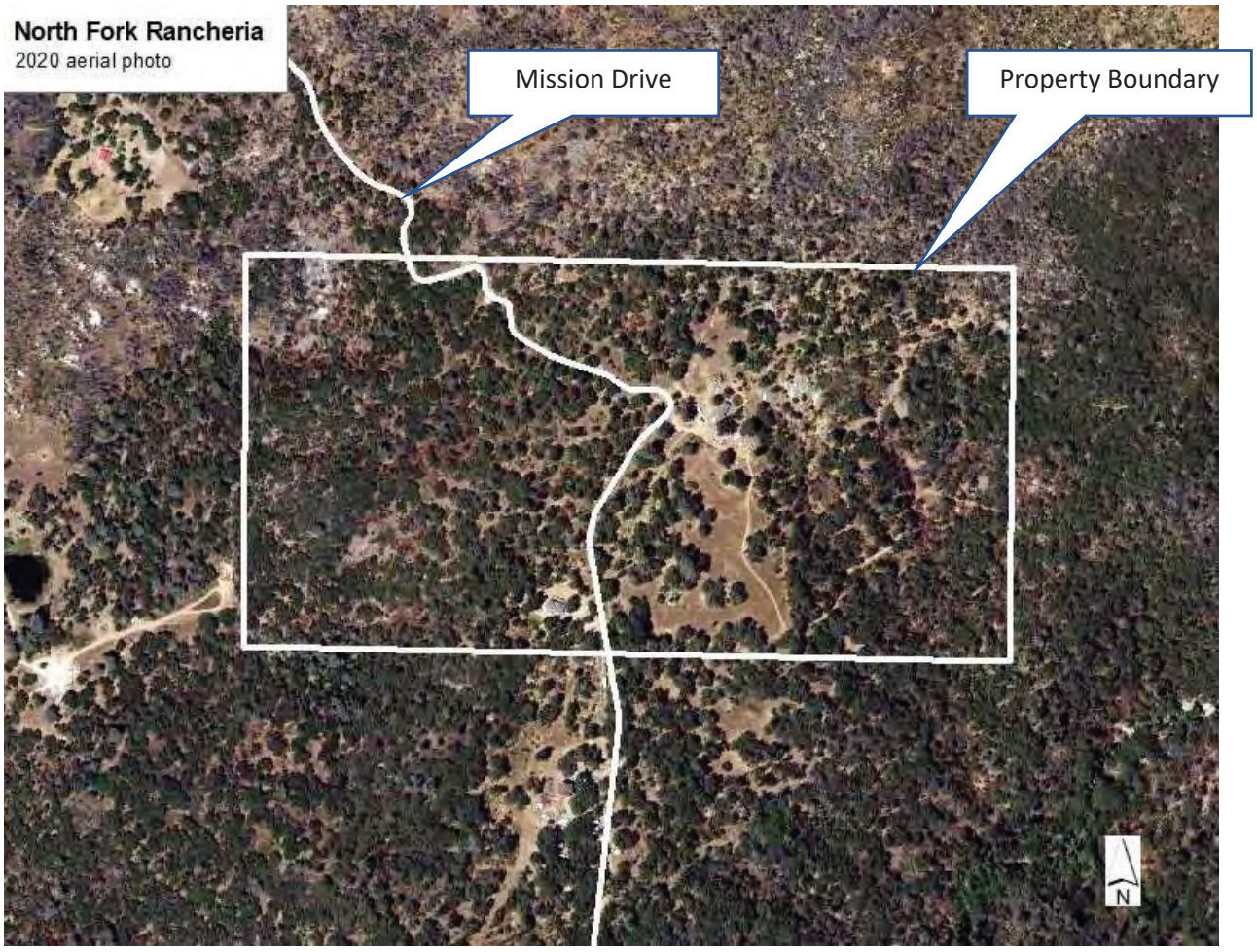


Figure 6. 2020 Aerial imagery

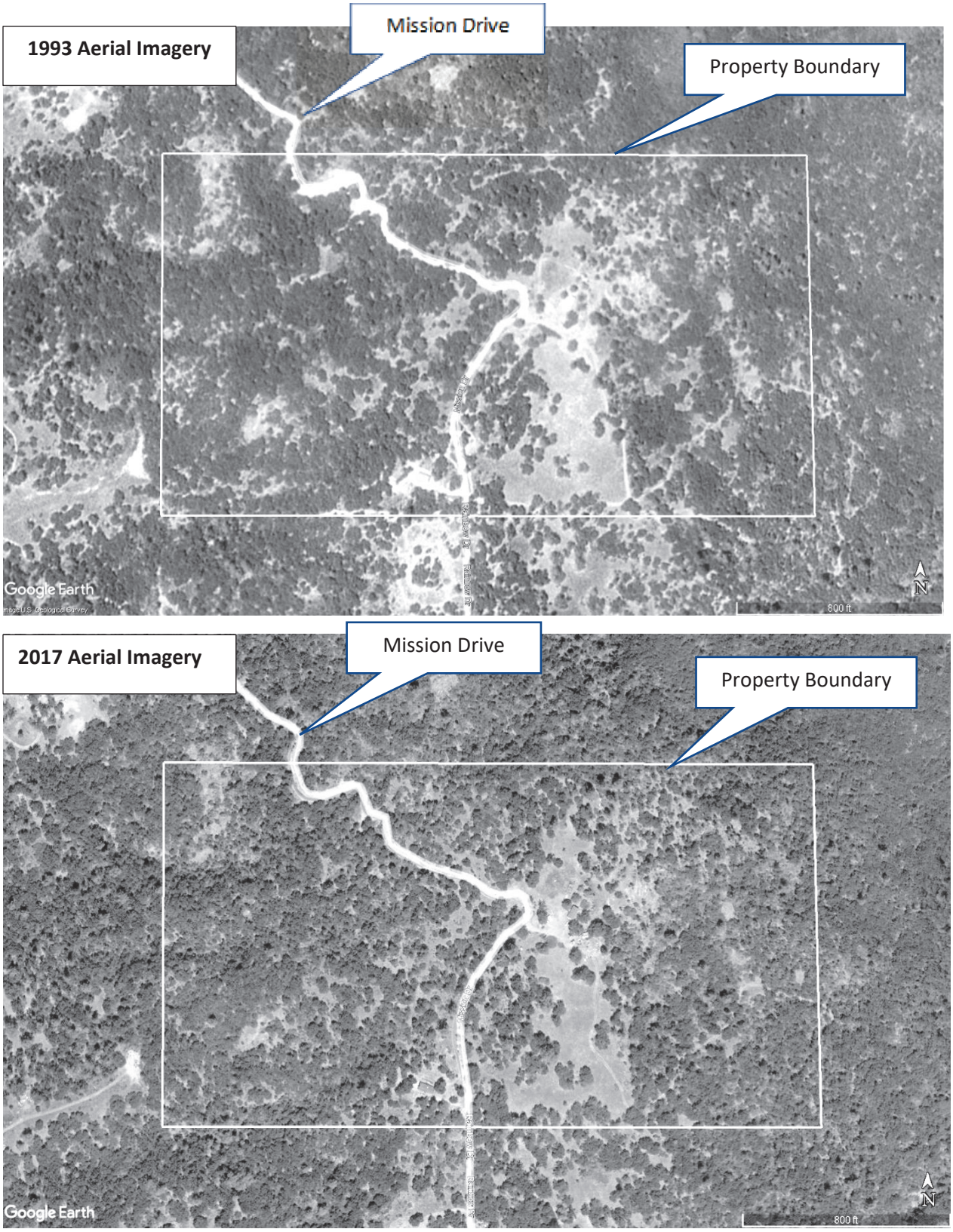


Figure 7. 1993 and 2017 Aerial imagery

Examination of the 1993 to 2020 aerial photo show little in vegetative changes over this 24-year period.

Guidelines for Fuel wood harvesting

Due to the size of the FMP area, the absence of conifer species, and the low hardwood stocking levels, tree harvesting should be limited to:

- Fuel break associated with the primary access road and secondary roads throughout the property. This should be, at a minimum, 50 feet clear on each side of the road surface.
- Defensible space around the structures, up to 300 feet.
- Once fuel treatments have been implemented, hardwood removals should not exceed estimated growth (10 cubic feet per acre per year = 5 cords/year/acre on 65 woodland acres).
- The allowable harvest is expected to support the tribe and its need for home heating.

Protection

Ordinances and Standards

The North Fork Rancheria is in a Wildland Urban Interface (WUI), bordering the Sierra National Forest. Federal policies of fire suppression by the USFS have increased the risk of wildfires by facilitating the accumulation of fuel. Recent years of drought conditions have stressed vegetation to the point that dead and dying vegetation has significantly increase the fuel loading on private, state, and federal forestland. Highly flammable shrub species make wildfire risk in the FMP area extremely high. A Fire Management Plan Assessment (FMPA) that addresses the protection of all trust lands is now in place for the Agency.

The FMP area falls within the authority of the Sierra-South Region of the California Department of Forestry's (Cal Fire) fire protection area. In the event of a wildland fire, Cal Fire would respond as the lead agency with mutual aid from the United States Department of Agriculture (USDA), the USFS, and the North Fork Volunteer Fire Department.

Defensible space should be established around all habitable structures as illustrated below. A defensible space, Zone 1 and 2 of up the 100 feet is required by law. Assembly Bill 3074, passed into law in 2020, requires a third zone for defensible space. This law requires the Board of Forestry and Fire Protection to develop the regulation for a new ember-resistant zone (Zone 0) within 0 to 5 feet of the home by January 1, 2023. https://www.readyforwildfire.org/prepare-for-wildfire/get-ready/defensible-space/

Fire

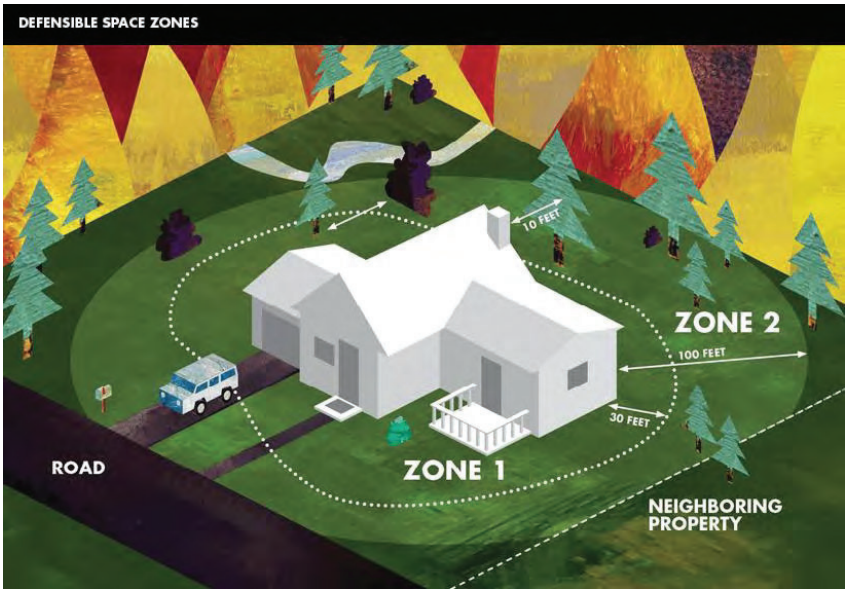


Exhibit 1

Figure 8. Defensible Space Zone around structure

The following standards are taken from the Cal Fire fire safe counsel suggestions to reduce and control the spread of wildland fire events. Cal Fire would act as the lead agency of a fire event with the USFS providing aid.

937.2 (California Forest Practice Rules) Treatment of slash to reduce fire hazard Board of Forestry Technical Rule Addendum No. 4 Slash is defined by the Forest Practice Rules as "Slash, pursuant to PRC 4525.7, means branches or limbs less than four inched in diameter, and bark and split products debris left on the ground as a result of Timber Operations.

https://bof.fire.ca.gov/media/9478/2020-forest-practice-rules-and-act_final_ada.pdf

(b) Within 100 feet of the edge of the traveled surface of public roads, and within 50 feet of the edge of the traveled surface of permanent private roads open for public use where permission to pass is not required, Slash created and trees knocked down by road construction or Timber Operations shall be treated by lopping for fire hazard reduction, piling, and burning, chipping, burying or removal from the zone.

(c) All woody debris created by Timber Operations greater than one inch but less than eight inches in diameter within 100 feet of permanently located structures maintained for human habitation shall be removed or piled and burned; all Slash created between 100-200 feet of permanently located structures maintained for human habitation shall be lopped for fire hazard reduction, removed, chipped or piled and burned; lopping may be required between 200-500 feet where unusual fire risk or hazard exist as determined by the Director or the RPF.

Guidelines for Fire Safe Implementation around Structures

Zone 0, Ember Resistant Zone

Zone 0 extends 5 feet from buildings, structures, decks, etc.

The ember-resistant zone is currently not required by law, but science has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to your home. The following provides guidance for

this zone, which may change based on the regulation developed by the Board of Forestry and Fire Protection.

- Use hardscape like gravel, pavers, concrete and other noncombustible mulch materials. No combustible bark or mulch.
- Remove all dead and dying weeds, grass, plants, shrubs, trees, branches, and vegetative debris (leaves, needles, cones, bark, etc.); Check your roofs, gutters, decks, porches, stairways, etc.
- Remove all branches within 10 feet of any chimney or stovepipe outlet.
- Limit plants in this area to low growing, nonwoody, properly watered and maintained plants.
- Limit combustible items (outdoor furniture, planters, etc.) on top of decks.
- Relocate firewood and lumber to Zone 2.
- Replace combustible fencing, gates, and arbors attach to the home with noncombustible alternatives.
- Consider relocating garbage and recycling containers outside this zone.
- Consider relocating boats, RVs, vehicles, and other combustible items outside this zone.

Zone 1, Lean, Clean and Green Zone

Zone 1 extents 30’ from buildings, structures, decks, etc. or to your property line whichever is closer.

- Remove all dead plants, grass, and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof, and rain gutters.
- Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Relocate wood piles to Zone 2.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.
- Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2, Reduce Fuel Zone

Zone 2 extends from 30 to 100’ out from buildings, structures, decks, etc. or to your property line, whichever is closer.

- Cut or mow annual grass down to a maximum height of 4 inches.

- Create horizontal space between shrubs and trees. (See Figure 8)
- Create vertical space between grass, shrubs, and trees. (See Figure 9)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.
- All exposed wood piles must have a minimum of 10 feet of clearance, down to bare mineral soil, in all directions.

Zones 1 and 2

"Outbuildings" and Liquid Propane Gas (LPG) storage tanks shall have 10 feet of clearance to bare mineral soil and no flammable vegetation for an additional 10 feet around their exterior.

Additional suggestions

Other local agencies have local suggestions for defensible space or weed abatement. These local suggestions will often be better suited to the local environment. Check with the local fire department or fire protection district for any additional defensible space or weed abatement requirements.

Plant and Tree Spacing

The spacing between grass, shrubs, and trees is crucial to reduce the spread of wildfires. The spacing needed is determined by the type and size of brush and trees, as well as the slope of the land. For example, a property on a steep slope with larger vegetation requires greater spacing between trees and shrubs than a level property that has small, sparse vegetation.

Vertical Spacing

Remove all tree branches within at least six feet from the ground. Allow extra vertical space between shrubs and trees. Lack of vertical space can allow a fire to move from the ground to the brush to the treetops like a ladder. This leads to more intense fire closer to your home. To determine the proper vertical spacing between shrubs and the lowest branches of trees, use the formula below.

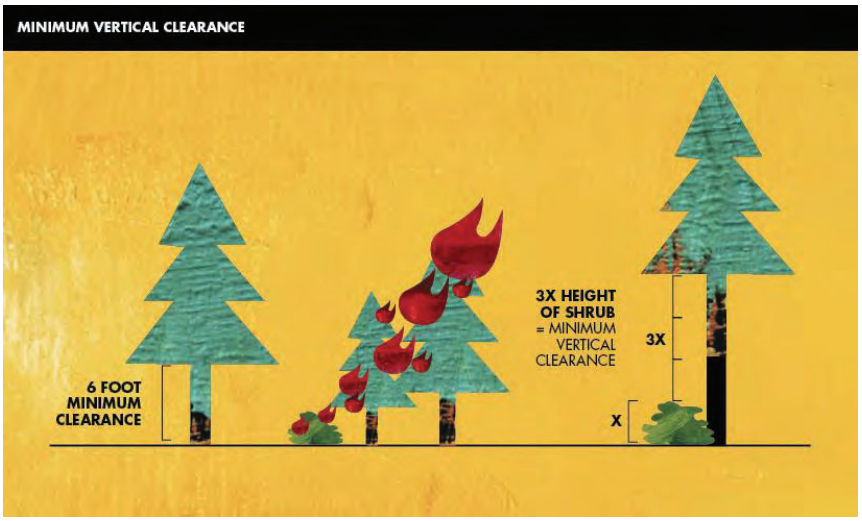


Exhibit 2

Figure 9. Minimum vertical clearance around structures

Example: A five-foot shrub is growing near a tree. 3×5 = 15 feet of clearance needed between the top of the shrub and the lowest tree branch.

Horizontal Spacing

Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. Check the chart below (Exhibit 3) to determine spacing distance.

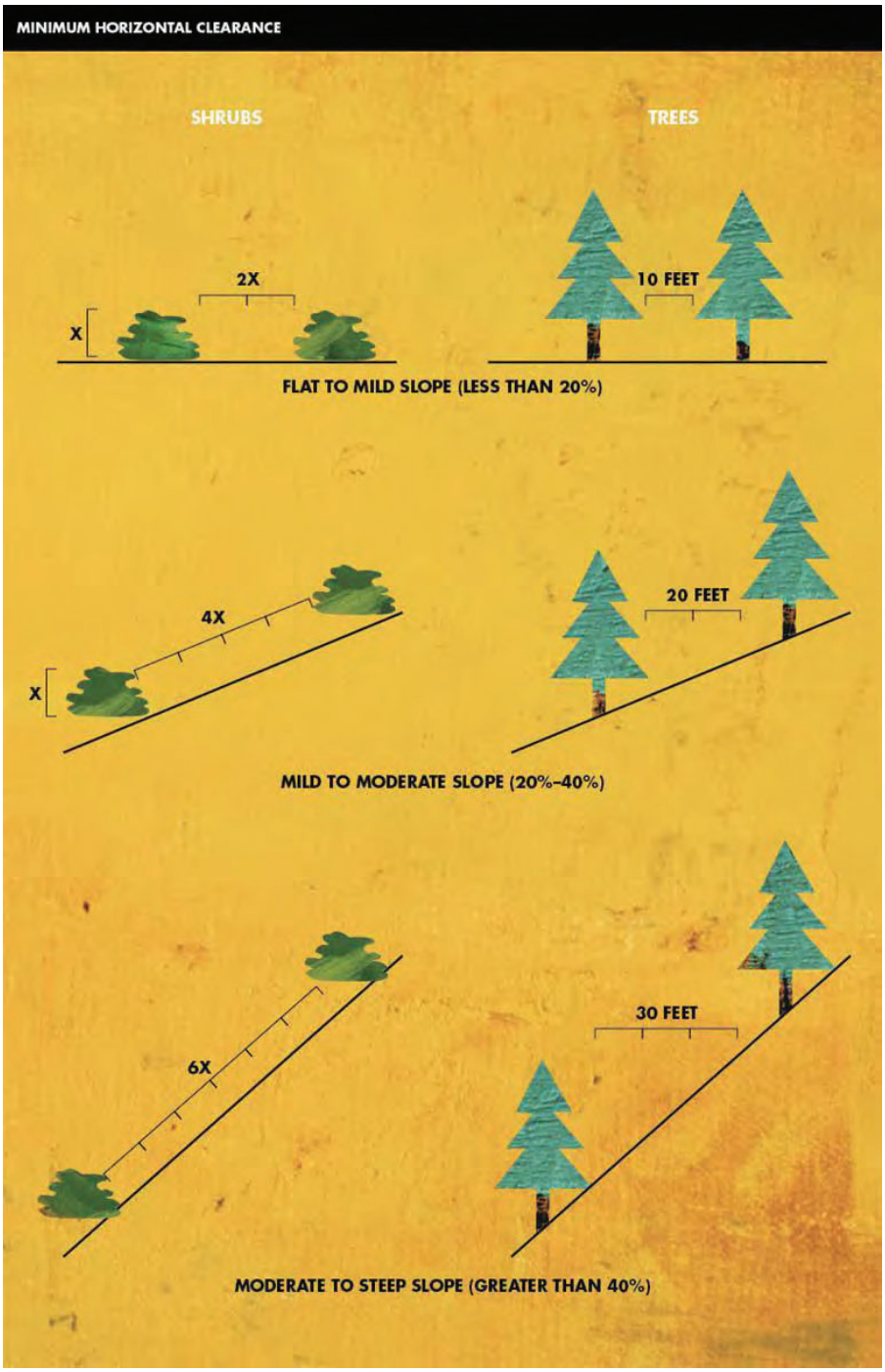


Exhibit 3

Figure 10. Minimum Horizontal Clearance Around Structures

Additional information can be found at the following links.

https://www.readyforwildfire.org/prepare-for-wildfire/get-ready/defensible-space/

https://cafiresafecouncil.org//resources/fire-safety-information-for-residents/

Guidelines for Fire Safe Implementation of fuel breaks on permanent access roads.

A fuel break should be maintained within 50 feet of the edge of the traveled surface of permanent private roads open for public use where permission to pass is not required. See Figure 16 for location of roads.

Fuel Break, treat as Zone 2 above.

- Maintain a fuel break within 50 feet of the edge of the traveled surface of permanent private roads (100 feet wide).
- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal space between shrubs and trees. (See Exhibit 3)
- Create vertical space between grass, shrubs, and trees. (See Exhibit 2)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.

Plant and Tree spacing, as shown above and in Exhibit 3.

Vertical Spacing, as shown above and in Exhibit 2.

Guidelines for ground and ladder fuels on the 80-acre FMP Area.

- Implement a grazing practice that would focus on controlling ground fuels. The perimeter of the 80 acres would need to be fenced. Grazing in the form of cattle, goats or sheep would control annual grass species thereby reducing ground fuels.
- Due to the recent fire events, prescribed burning is not necessary. Current ladder fuels are reasonable. Ground fuel levels in the form of grass is high. Grazing will control ground fuel levels.

Invasive Species

Guidelines for the control of invasive species

The California Department of Food and Agriculture defines a "noxious weed" as any species of plant designated by the director, by regulation, that is, or is liable to be, troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate.

The California Invasive Plant Council (CalIPC) categorizes non-native invasive plants that threaten the state's wildlands. Categorization is based on an assessment of the ecological impacts of each plant. The Inventory represents the best available knowledge of invasive plant experts in the state.

A weed control program is best viewed as part of an overall restoration program. While the species may differ, invasive plants have some things in common that make them aggressive and difficult to control:

- Ability to grow in many conditions (wide ecological amplitude)
- Rapid growth
- Ability to exploit and colonize disturbed ground
- Ability to thrive in extreme nutrient conditions (i.e., excess fertilizers)
- Reproduce rapidly by roots and shoots. If spread by seed, produce numerous seeds that disperse and sprout easily or have extreme long-lived seed
- Having roots and rhizomes with large food reserves
- Ability to survive and reproduce under adverse conditions
- Having high photosynthetic rates -- "greening up" earlier in the spring than natives give these plants a competitive advantage
- Lack of natural predators, pathogens, and parasites

High priority should be set to preventing new invasions and quickly detecting and eliminating them. In many cases, long established communities of invasive plants are next to impossible to eradicate quickly, if at all. However, a new invasion with a few plants is easier to combat. The 'Bradley Method' of weed management includes beginning in a portion of the site where the best stand of desirable native vegetation exists and proceeding onto progressively worse weed infestations.

Control options for invasive species include integrative pest management (IPM): chemical, biological, and mechanical. In many cases control involves more than one aspect, if not all three. **Persistent** monitoring of populations is essential for successful control of invasive plants. It is common for land managers to spend up to or even more than a decade trying to remove an invasive population of plants.

Chemical applications will require a pest control recommendation provided by a Pest Control Advisor (PCA) and herbicide applications should be ideally performed by a licensed Pest Control Operator. Madeira County Agricultural Commissioner's Office should have a list of professionals available in the county to perform this work.

It is the Tribe's objective to eradicate one acre of the following invasive species found within the FMP area as well as the Community Area:

- Tree-of-Heaven, Cal IPC rated Moderate, CDFA Noxious Weed
- Klamathweed, Cal IPC rated Moderate, CDFA Noxious Weed
- Scotch broom, Cal IPC rated High, CDFA Noxious Weed
- Starthistle, Cal IPC rated High, CDFA Noxious Weed

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1. Tree-of-Heaven (*Ailanthus altissima*). The Tree-of-heaven grows rapidly (sprouts can attain a height of 6 to 12 feet the first year and grow 3 feet or more per year), is a prolific seeder, a persistent stump and root sprouter, and an aggressive competitor that thrives in full sunlight. It also produces an allelopathic compound that suppresses the growth of many native woody and herbaceous species. It will grow in infertile, shallow soils of varying pH, and is highly tolerant of poor air quality.

   Within the FMP area, Tree-of-Heaven is found along the main road (Mission Drive) and near the residences.



Figure 11. Tree-of-Heaven growing near Mission Drive

Chemical control. This is the most effective, cheapest, and quickest way to eliminate tree-of-heaven. Consult a Pest Control Advisor for a complete pest control recommendation for herbicide use.

Basal bark application: Basal bark applications are commonly used to control small to medium sized *Ailanthus* by spraying the circumference of the lower 12–18 inches of the trunk with an herbicide in an oil carrier. This method is highly effective in controlling trees up to 8 inches in diameter; larger trees can be controlled but research and experience is limited regarding the success rate; therefore, follow-up treatments will be necessary if sprouting occurs.

Current research suggests that basal bark treatments can be applied effectively May through October and may be most effective in the later part of that window. Herbicides recommended for basal spraying are listed in Table 2. To avoid the unintentional killing of desirable plants when basal spraying, particular care should be taken to avoid over-spraying (spraying that does not strike the targeted trunk) or excessive spraying to runoff. Basal bark treatments should only be applied when the trunk is dry. Consult a PCA for specific prescriptions for basal bark application to treat *Ailanthus altissima*.

Cut stump treatment: Traditionally cut stump treatments have been an effective method for controlling larger ailanthus, though sprouting will occur and require one or more follow-up treatments. These treatments are most effective on *Ailanthus* when applied late May through September.

Hack-and-Squirt: This method involves introducing an herbicide into the tree through spaced cuts made around the trunk of the tree with an ax, hatchet, or tree injector. When using an ax or hatchet, lesser amounts of herbicide are applied to each cut using a pint or quart spray bottle (such as those available at garden stores). When using an injector, the herbicide is automatically applied to the cut when the cut is made. Several types of injector systems are available including one that utilizes an herbicide shell. The choices between using an ax or hatchet versus an injector, and the type of injector, depend on individual preference, the herbicide to be used, and the size of the job. Because the herbicide is applied to only a small area, this method minimizes the potential for non-target effects through overspray, drift, or runoff. However, non-target species can still be impacted if they are connected to the targeted plant through root grafts. This method can result in extensive sprouting and requires follow-up treatments.

Mechanical control: Mechanical control is best done when used in combination with chemical control. Success can be had with mechanical control alone if persistence is shown by the land manager.

Smaller trees can be hand pulled and it is essential all pieces of the root are removed. The larger the tree, the more difficult this becomes. As trees become larger, brush saws, loppers or chainsaws may be used. However, it is important to note that the tree will continue to re-sprout and until the root reserves are depleted, the tree cannot be eliminated. The aggressive resprouting of this tree makes mechanical control difficult unless the roots are destroyed chemically or fully removed mechanically (or by hand). To reduce and/or completely reduce sprouting the cut-stump treatment using herbicides should be used (see above discussion on chemical control).

2. Klamathweed (*Hypericum perforatum*). A native of Europe, Klamathweed entered the United States through the Pacific Northwest seaports. Hypericin, the natural chemical within the plant, causes skin irritation and photosensitive reactions in livestock that eat it. The affected animals rarely die but they do lose weight and develop skin irritations when exposed to sunlight. This is especially true for light-skinned animals. Humans ingesting hypericin also experience this photosensitive reaction.

   This plant spreads by underground rhizomes, above-ground creeping stems, and by seeds that are dispersed by wind and animals. One plant can produce up to 15,000 to 34,000 seeds per year that are viable for up to 30+ years.



Figure 12. Klamathweed

Chemical control: Foliar spray applications are considered effective though follow-up is necessary due to vast seed bank. Consult a Pest Control Advisor for a pest control recommendation.

Mechanical control: Hand pulling is not considered effective because of their long taproot and roots that easily break off during removal. This should only be attempted if populations are small and follow up visits are frequent. Do not leave plants at the site since vegetative growth will occur, and the seed source will remain. Tillage is effective when repeated in croplands. Mowing is a limited option depending both on site accessibility and whether seed formation has occurred. Repeated cuts are necessary.

Cultural control: Grazing is not considered effective because plants are toxic and unpalatable. Burning will not kill roots and plants will readily resprout.

3. Scotch broom (*Cytisus scoparius*). Scotch broom is native to northern Africa and parts of Europe. In North America, Scotch broom was introduced to Virginia in the early 1800s for use as fodder for domestic sheep. By 1860 it was considered invasive.

   Several characteristics contribute to Scotch broom's success as an invasive plant: (1) although it loses its leaves during dry conditions, the photosynthetic tissue in its stems allows it to grow throughout the year; (2) its roots host nitrogen-fixing bacteria, which helps the plant to establish in nutrient-poor soils; and (3) it produces abundant seeds that remain viable in the soil for many years. In addition, Scotch broom is slightly toxic and unpalatable to livestock.

   Eliminating Scotch broom requires the complete prevention of seed production once control efforts have begun

   Chemical control: This is one of the most effective way to eliminate Scotch broom, especially when used in conjunction with mechanical control. Consult a Pest Control Advisor for a complete pest control recommendation for herbicide use.

   <u>Foliar spray:</u> Plants can be sprayed during the growing season with a non-selective herbicide (i.e., glyphosate). Plants should not be cut down for at least four months. This treatment works well in areas where Scotch broom is dominant and desirable plants are not present. Herbicides such as triclopyr can be used as a foliar spray in areas where desirable grasses are present.

   <u>Cut stump/basal bark treatment:</u> Fresh stumps can be treated with triclopyr. For basal bark treatment, spray until thoroughly wet (no runoff) the root collar up to

15” above ground with triclopyr and surfactant. Do not cut plants for at least one month.

Mechanical control: Seedlings and small plants can be pulled. Pulling plants when soils are moist is easier. More mature plants will need to be removed with a weed wrench or other woody weed extractor. Cutting the plants and leaving the root system intact, or partially intact, will result in re-sprouting. If plants are cut, chemical applications can be used to treat stumps or sprouts.

Cultural control: Grazing is not considered effective control for Scotch broom as the plants are unpalatable and toxic. Burning (alone without IPM) will result in an exacerbation of plants, encouraging dormant seed to germinate. However, if burning is used in conjunction with chemical control in can be highly effective.

4. Starthistle (*Centaurea solstialis*). This plant is native to Eurasia and was introduced to California around 1850 via South America. It is now common in open areas on roadsides, rangeland, wildlands, hay fields, pastures, and waste areas. Recent reports indicate that yellow starthistle infests between 10 and 15 million acres in California. Disturbances created by cultivation, poorly timed mowing, road building and maintenance, or overgrazing favor this rapid colonizer. It forms dense infestations and rapidly depletes soil moisture, thus preventing the establishment of other species. It is also poisonous to horses, causing a nervous disorder called “chewing disease” which is fatal once symptoms develop. Horses are the only animal known to be affected in this manner and should not be allowed to graze on starthistle.



Figure 13. Yellow starthistle

Seed output can be as high at 30,000 seeds per square meter, with about 95% of the seed being viable soon after dispersal. Most seeds germinate within a year of dispersal, but some can remain viable in the soil for more than three years. Seeds germinate from fall through spring, which corresponds to the normal rainy season in California.

Within the FMP area, starthistle is found along the main road (Mission Drive), within disturbed areas and the grassland areas and their transition zones into oak woodlands.

Chemical control: This is the most effective, cheapest, and quickest way to eliminate this plant. Consult a Pest Control Advisor for a complete pest control recommendation for herbicide use.

A pre- and post-emergence herbicide is a viable choice for treatment of starthistle if used early in the season, prior to germination. Application from January through March should provide season-long control. Issues with pre-emergence treatment is ensuring complete coverage. Generally spraying near and adjacent to dead starthistle plants should ensure coverage; however, there is a high probability that some areas will be missed. Follow up post-germination will be necessary to thoroughly get complete coverage. This treatment will also work on milk thistle (*Silybum marianum*), which is also present within the FMP area.

Manual control: Hand-pull (wearing good gloves!) or dig up young plants (best done when young prior to bolting) and be sure to clip flowerheads of mature plants and dispose of them in the trash.

Insect, Disease and Other Conditions

Oak mistletoe (*Phoradendron* spp.) was observed on several oak trees (*Quercus* spp.). Mistletoes are parasitic evergreen plants that grow on various species of oaks. Broadleaf mistletoe absorbs both water and mineral nutrients from its host trees. Healthy trees can tolerate a few mistletoe branch infections, but individual branches may be weakened or sometimes killed. Heavily infested trees may be reduced in vigor, stunted, or even killed, especially if they are stressed by other problems such as drought or disease.

In areas with high abundances of mistletoe, individual trees can suffer premature mortality. In woodland or forest settings, this rarely presents problems, with the dead trees soon being replaced by natural regeneration. Within the FMP area, there is a lack of deciduous oak (white, valley, black) regeneration so protection of individual trees may be warranted. Mistletoe control can be useful to reduce the number of mistletoes on individual trees, allowing the tree to recover, increase vigor and boost resistance to herbivores and other natural enemies that can exacerbate severe mistletoe infections.



Figure 14. Oak mistletoe (*Phoradendron*) on interior live oak

While imperfect, mistletoe control can be done chemically or manually. They each host a range of difficulties including difficulty in access to each plant (chemical and manual), potential tree death (chemical), missing smaller plants during removal, and prohibitive cost.

It is not recommended that mistletoe be proactively removed, unless so desired.

Trespass

Public Law 101-630, 25 CFR 163 Regulations, and 53 BIAM, Supplement 7 provide for the investigation of trespass, and the process by which to reach settlements.

Fire Trespass: Fire trespass can be divided into three types: unintentional; negligent (e.g., out of control brush fire burning); and willful (e.g., arson). Depending on the strength of the evidence, arson can be exceedingly difficult to prove and prosecute, while negligence is easy to establish when a brush fire jumps the line. Fire trespass has not been a problem on the Rancheria.

Timber Trespass: Timber trespass can be divided into three general types: innocent, inadvertent, and willful. *Innocent* timber trespass occurs when the trespasser has relied on accepted survey data collected by a licensed surveyor that end up being inaccurate. Damages for this type of trespass are often limited to the actual value of timber products removed. *Inadvertent* trespass occurs when the trespasser has failed to locate the property line defining the edge of the cutting unit. Damages for this trespass usually are determined by Civil Code, and equal to twice the stumpage rate for the timber products removed. *Willful* timber trespass constitutes theft. This type of trespass is rare, and exceedingly difficult to prove. If proven, damages can be triple the stumpage value of timber products removed.

Although timber (conifer logs for lumber) trespass has not been a problem on the Rancheria, tribal members have reported unauthorized removal of firewood from the Old Rancheria. It is recommended that Policies and Procedures for Harvesting of Minor Forest Products be developed and implemented. Such a policy would limit harvesting of firewood to tribal members only, and limit the amounts harvested per household. Penalties for non-compliance with the permits would be promulgated. Because of P.L. 83-280, the responsibility for the investigation and prosecution of trespass on Indian trust lands in California has been delegated to the State. See the Appendix for specific information.

Hunting Trespass: There have not been any reports of hunting trespass on the Rancheria. Should it become a problem, "No Hunting" signs should be posted where roads cross onto the Rancheria, and incidents reported to the local Sheriff. Tribal Ordinances and Standards would need to be developed to determine how to manage hunting trespass cases.

Forest Land Management

Resource inventory

The recent inventory shows the dominant vegetation community within the FMP area is interior live oak woodlands. A review of the collected data shows a Basal Area of 51 square feet per acre and a cubic foot volume of 1,000 cubic feet per acre per year. Growth was estimated at 10 cubic feet per acre per year (see page 12 of this report).

Timber stocking levels are below what is considered ‘stocked’ forestland per the California Forest Practice Rules. The property could be considered Site Class 4 and does not have a high potential for timber growth.

Traditional uses of the forest have included acorn collecting, firewood cutting, basketry material collecting and medicinal plant gathering. The forest also represents a significant community, watershed, and wildlife habitat asset.

Due to the lack of commercial value of woodland forest associated with this property it is unlikely that a future inventory would be necessary.

Roads

The FMP area has one main road through the middle of the property, known as Mission Drive. This road is mostly paved and in good condition. Several secondary roads access the two residences on the property and the eastern half of the property. These secondary roads are seasonal, and not rocked. Access to the entire property is important to the community for use in recreation, firewood, and fire suppression. Mission Drive turns into Rainbow Drive once you leave the FMP southern border. This road should be maintained as an emergency exit for the Rancheria in case of a catastrophic fire event.



Figure 15. Mission Drive, looking to the North

With scheduled maintenance the roads on the Rancheria are adequate for forest management and fire suppression activities.

The potential for erosion problems associated with graveled and native dirt surfaced roads can be significant. These types of issues can best be controlled by the following.

- Onsite review on at least a biannual basis for potential erosion problems, including maintenance of low water crossings and culvert openings, the removal of grass, sticks and other vegetation that map plug a culvert or divert a drainage crossing.
- Annual scheduling of correction measures to correct potential erosion problems prior to the onset of winter rains.
- Onsite examination of road surfaced during major storm events to correct erosion issues on the spot, prior to the development of major erosion issues. This can best be accomplished with a pick and shovel.
- Educational awareness conveyed to all tribal members of the importance of avoiding travel on saturated non-rocked roads during the winter period and the consequences of the erosion damage that can result.

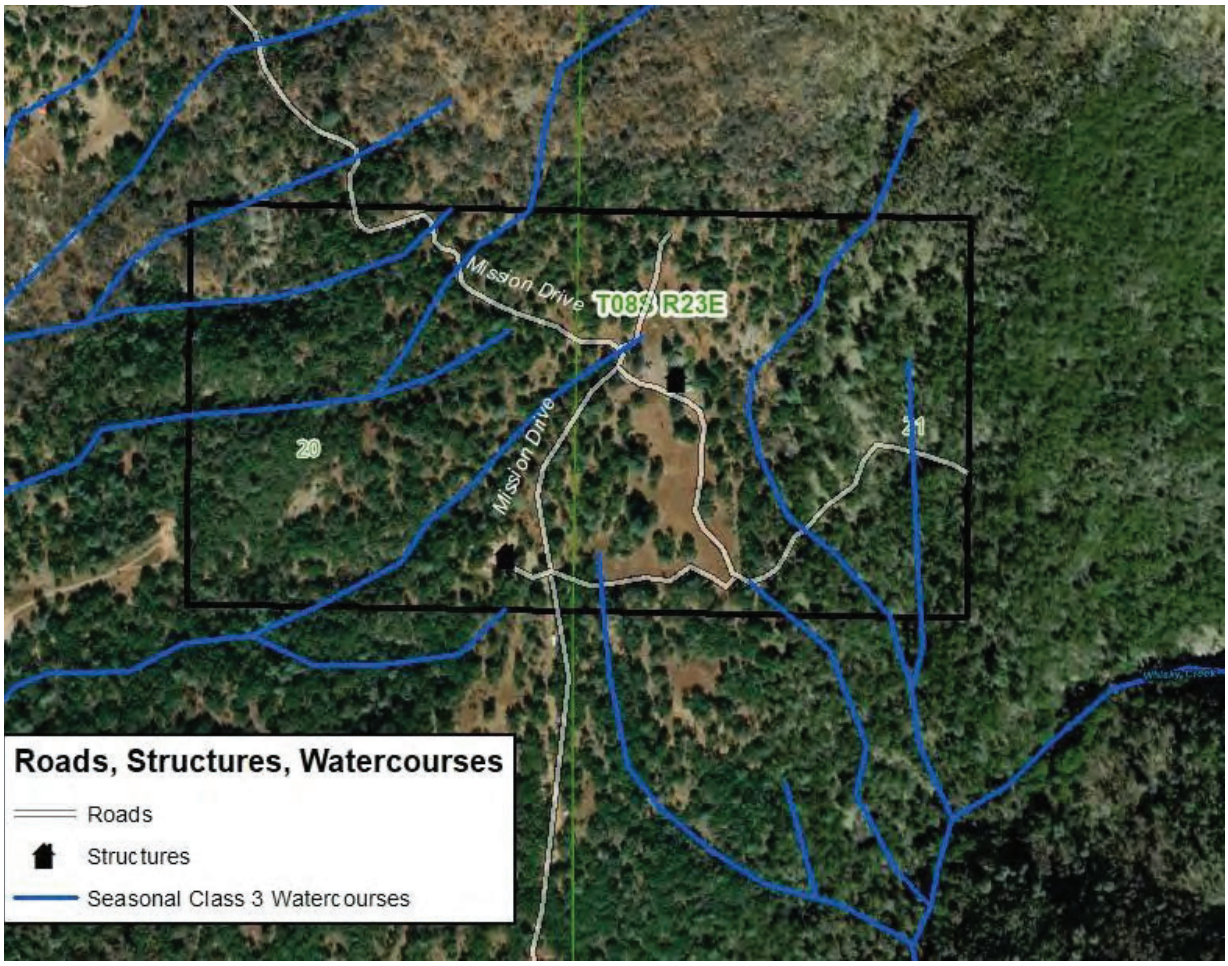


Figure 16. Roads, Structures and Watercourses

Streams, wetlands, and ponds

Watercourses are key features in the forest. They provide water to communities and wildlife, and habitat for fish and aquatic species. They are especially sensitive to impacts from human activities and thus they are the focus of many regulations by government agencies. Fire, roads, and land use activity such as stream diversions, land disturbance (building, grading) and timber harvesting can affect watercourses and care should be taken when doing any activities adjacent to a watercourse.

There are several different ways that watercourses can be classified. Definitions used in this management plan come from the California Forest Practice Rules.

A Class 1 watercourse has aquatic habitat for fish species. The San Joaquin River and the lower reaches of both Whiskey Creek and Willow Creeks are classified as Class 1 watercourses. In many cases, seasonal watercourses with low gradient reaches into larger Class 1 watercourses can be classified as Class 1s as during high water flow conditions fish can make their way up these streams.

A Class 2 watercourse has aquatic habitat for non-fish aquatic species (invertebrates, amphibians). Generally speaking, these watercourses will exhibit rocky substrates and more defined channels than Class 3 watercourses. A Class 3 watercourse is defined as having no aquatic life present within the watercourse but still showing evidence of being capable of sediment transport to Class 2 or Class 1 waters under normal high water flow conditions. The FMP area has several Class 3 watercourses, which are tributaries to either Willow Creek or Whiskey Creek.

There are also two stock ponds on the property. One is fed by a seasonal watercourse and the second is fed by a spring. Both are located near a residence within the FMP area.

Fire

Fire will continue to play a key role in the management of the FMP area. See protection measures detailed on page 20.

Wildlife and Fisheries

A full report for the North Fork Rancheria FMP can be found at the end of this plan.

Archaeological and Cultural Resources

The FMP area is rich with cultural resources. Prior to 2021, six prehistoric sites (including one protohistoric) were found within the confines of the FMP area. Subsequent surveys in 2021 revealed an additional two prehistoric and two historic sites. A complete report is available, see report dated 2021 prepared by Charlene Gross of AES.



Figure 17. Archaeological Sites within the FMP area

Prehistoric sites include bedrock mortars, milling slicks, lithic scatter, and midden. Historic resources include a can dump, a former residence, and features related to mining such as adits and at ditch.

The North Fork Rancheria also considers cultural resources to include gathering areas. Gathering areas contain valuable plant materials for basketry, food, and medicines. Native Plants that are deemed valuable for traditional and customary uses will be favored in revegetation projects when suitable. Plants that are considered highly valuable culturally, that are present onsite include:

- Oak (*Quercus* spp).
- Hall's mule ears (*Wyethia elata*)
- *Clarkia* spp.
- Blue elderberry (*Sambucus nigra* ssp*. caerulea)*
- Buckeye (*Aesculus californica*)
- Blue wildrye (*Elymus glaucus*)
- Brodiaea, *Brodiaea* and *Triteleia*
- Onion (*Allium)*



Figure 18. Hall's mule ears

Management Activities and Impacts

To recognize a range of tribal goals and objectives, management activities are proposed, and their impacts analyzed. The goals, objectives and proposed actions of the Tribe, as noted at the beginning of this report, have been incorporated in the following management strategies.

- **Restore areas damaged by recent high severity wildfires in 2017 and 2020**
  Due to the fire adaption of the brush and forest species associated with this ecosystem, there is no need to restore the burned vegetation. Many species can sprout from their base because of fire, and/or have adapted to fire through the buried seed strategy, whereas the original plant is destroyed by fire, but has left an abundance of long-lived seed in the soil. Onsite evaluation of both methods of regeneration shows this is taking place.



Figure 19. Resprouting of oak within high severity fire damaged area

- **Reforest areas of high severity wildfires**
  The soils within the FMP area are marginal for commercial timber production. While commercial species are found (ponderosa pine) they are at low densities and have been historically. The property is best described as a mixed hardwood conifer, dominated by interior live oak, canyon live oak, blue oak, ponderosa pine and gray pine. There are sporadic occurrences of both white oak and valley oak.

Planting of commercial forest species would not produce a viable commercial forest. The soil types would produce an unhealthy forest due to lack of nutrients, moisture, soil depth and elevation. See soil characteristics on page 2.

- **Restore critical forest carbon stocks.**
  Grazing and fuel breaks will decrease potential fire intensity while allowing forest canopy and tree diameters to increase thus increasing carbon stocks.

  Restoring native perennial bunchgrass can also increase carbon stocks below ground. Examples of native perennial grasses would include *Elymus glaucus* (blue wildrye), *Elymus triticoides* (beardless wildrye), *Hordeum brachyantherum* (meadow barley), *Melica californica* (California oniongrass) and *Stipa pulchra* (purple needlegrass). Care would need to be taken that these restored areas are protected from grazing until they have become established.

- **Implement strategic fuel treatments to address safety**
  By establishing fuel breaks around structures on the property and a fuel break along the primary access road, fire suppression activities will be more successful. See the Protection section on page 20.

- **Prescribed Fire**
  The primary purpose of prescribed fire is to reduce ground and ladder fuels. This reduction will slow fire events and reduce the potential for extremely hot fire events. The suggested grazing of cattle, goats and or sheep will reduce ground fuels and ladder fuels economically and achieve the goal of reduced ladder fuel loads within the FMP area.

  The use of prescribed fire is expensive and carries an elevated risk to neighboring properties.

  Any regional planning by Cal Fire or the US Forest Service to use prescribed fire on a landscape level should be encouraged. The installation by the Tribe of fuel breaks and defensible spaces around structures will facilitate the safe application of a landscape prescribed fire event.

- **Pest management**
  Recent fire events have helped to maintain a healthy woodland forest. Oak mistletoe (*Phoradendron* spp.) is present on some of the deciduous oaks of the property. Continued annual monitoring of the forest is suggested. Control is not recommended unless outbreak becomes much more severe.

- **Biomass Utilization**
  Two biomass plants exist in Madera and Fresno Counties. Due to the small size of oaks within the FMP area, it is suggested that the development of biomass for regeneration be put off until some future time when it would be more economic to harvest and deliver. Due to the gentle slopes, averaging less than 30%, future harvesting of biomass should be undertaken with mechanized logging equipment. This would allow an economical method of removing larger hardwood trees and minimizing soil disturbance associated with conventional logging equipment.

- **Reduce 140 acres of fuels**
  This area includes both the FMP area and within the nearby community area. Recent fire events have reduced some of these fuels. The application of a fuel break along the primary access road and a defensible space around the existing structures and grazing of ground fuels on the 80 acres will meet this goal. Surrounding each structure with a 300' radius of defensible space would amount to 1.6 acres each. For the 20 structures present this would be 32 acres. In addition, the 50' on each side of all roads that should have a fuel break applied would add an additional 4 to 8 acres of fuel reduction. These areas should be revisited annually to manage grass, dying vegetation, sprouts and old trees.

- **Annual prescribed fire events**
  Conduct ten acres of prescription fire practices annually. See prescribed fire above.

- **Invasive species**
  Eradicate one acre of invasive species such as starthistle, Scotch Broom, Tree of Heaven and Klamathweed. See discussion on Guidelines for Treating Invasive Species on page 26.

- **Conduct 20 acres of site preparation for reforestation**
  See reforest area above. Soils not conducive to commercial forest species.

Lidar map tools have been used to develop maps associated with the management plan. Lidar is not publicly available. Most of the maps and imagery were obtained using ESRI ArcGIS and Google Earth imagery.

Technical assistance has been used in developing this Forest Management Plan. Use of agency input and consultant input has been encouraged. The following people have been consulted: Scott Butler, Registered Professional Forester, Charlene Gross, Professional Archaeologist. Pam Town, Professional Wildlife Biologist. Heather Morrison, Pest Control Advisor and Certified Botanist.

Environmental Assessment

Purpose and Need for Action

The Bureau of Indian Affairs (BIA) proposes to approve a Forest Management Plan (FMP) for the North Fork Rancheria of Mono Indians. The FMP will provide a framework for sustainable management of forest resources, while also identifying, protecting, and enhancing other forest related values such as water quality, cultural resources, economic benefits, and wildlife habitat. Employment and Community values also would be improved. The FMP includes a vegetation management strategy for resource protection.

The BIA is required to manage the Tribal forest resource on a sustained yield basis, and in accordance with Title III of Public Law 101-630 (the National Indian Forest Management Act of 1990). This Environmental Assessment (EA) will identify the components of the forest resources in the Study Area, describe the context and intensity of the potential environmental impacts of a range of proposed actions, and prescribe mitigation measures where appropriate. The BIA has selected a preferred alternative that best meets the project purpose and need, while not having the potential to “significantly affect the quality of the human environment.”

Description of the Potential Environmental Impacts

General Area Description

The FMP area is in Madera County, California, 1.5 miles southeast of the town of South Fork. Access is via paved, graveled, and native surfaced roads off Cascadel Road. There are two residences on the property. The North Fork Rancheria is surrounded on all sides by Sierra National Forest lands and can be located on the Cascadel Point USGS 7.5' quadrangle.

Air Quality and Noise

The property is in the foothills of the Sacramento Valley. Slope aspect is South to Southwesterly. Rainfall is primarily in the form of rain and averages 33.5 inches annually. Mean annual temperatures average from a high of 74 degrees to a low of 42 degrees F. www.usclimatedata.com

The North Fork Rancheria and FMP area is in the San Joaquin Valley Unified Air Pollution Control District. The following link will connect to current air quality for the South Fork Community. https://www.iqair.com/us/usa/california/north-fork/58292-road-225

Air quality monitoring based in Madera is well below the elevation of the community of North Fork, as such air quality monitoring is not representative of the North Fork Rancheria.

Fire events in the Sacramento basin and surrounding foothills has impacted air quality for several years. Increased growth in the area will lead to increased vehicle traffic and associated air quality degradation over time.

Ambient noise levels in and around both portions of the Rancheria are low. Most noise on the Rancheria emanates from vehicles using County Road 233. Vegetation management practices and fuel treatment projects would, for brief periods, increase noise levels from equipment such as chainsaws, tractors, loaders, and trucks.

Soils and Topography

The USDA, NRCS Custom Soil Resource Report shows two soil types. See the following link https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx .

> 107 Auberry-Ahwahnee soils depth ranges from 29 to 60 inches to weathered bedrock. Slope ranges from 5 to 35%. Run off is extremely high, land classification is 6e, unsuited for cultivation, primary use is pasture, range, and forestland.

139 Holland-Chaix soils depth ranges from 30to 60 inches to weathered bedrock. Slope ranges from 35 to 65%. Run off is high, land classification is 7e, unsuited for cultivation, primary use is grazing and forest land.

Topography is gentle, with the steepest ground (>35% slopes) located in the northeastern portions of the property. Most of the property is located on a flat ridgetop and drains to the south into the Whisky Creek watershed, and to the west into Willow Creek watershed. Elevations range from 3,450 feet in the northeast corner of the Rancheria to 2,980 feet in the southwest corner. The North Fork Rancheria is surrounded on all sides by Sierra National Forest lands and can be located on the Cascadel Point USGS 7.5' quadrangle.

Management activities such as grazing will have a minimal impact on soil resources, if property grazing techniques are used.

Treatment of invasive plant species should have a minimal impact if vegetation is treated properly utilizing prescriptions written by a Pest Control Advisor, and if applied according to the label and in a responsible manner.

Water Resources

The Rancheria falls on a gentle ridge between two Cal Water defined watersheds - Lower Willow Creek 6540.210510 and Lower Whisky Creek 6540.210401 within the +/-5017-acre Lower Whiskey Creek Calwater planning watershed (Cal Water ID 540.21041). https://egis.fire.ca.gov/watershed_mapper/

CAL WATER PLANNING WATERSHED		
CALWNUM	6540.210501	6540.210401
CDFPWSNAME	Lower Willow Creek	Lower Whisky Creek
HANUM	65402	65402
HANAME	North Fork	North Fork
Coho ESU Status	Outside of ESU	Outside of ESU
Chinook ESU Status	Outside of ESU	Outside of ESU
Steelhead DPS Status	Outside of DPS	Outside of DPS
Coho Restorability	Undetermined	Undetermined
Steelhead Restorability	Undetermined	Undetermined
Upstream ASP	No	No
Coastal Anadromy Zone	No	No
Status 303d 2010	Present	Adjacent
County	Madera	Madera
Acres	5784	5018

The 80-acre FMP area represents less than 1% of these two watersheds. Groundwater wells are the source of potable water on the Rancheria. There are numerous smaller watercourses that are tributaries to Willow Creek and Whiskey Creek (which is also a tributary to Willow Creek). Willow Creek flows into the San Joaquin River 5 miles south of the FMP area.

Treatment of invasive plant species should have a minimal impact to water resources if vegetation is treated properly utilizing prescriptions written by a Pest Control Advisor, and if applied according to the label and in a responsible manner.

Wildlife and Fisheries

Of the 22 listed species identified through project scoping, three have a moderate to high probability of occurring within the project area: two birds: California Spotted Owl, the Great Gray Owl, and one plant, the Tree Anemone. The Project Area is located close to the known range of both owl species and is located about 2 miles from known occurrences of each of these species. It is the species occurring along the edge of their range that make predictability of presence more difficult.

Fuel reduction activities within the FMP area are not expected to affect any of the three special status species that have a moderate to high probability of occurring.

An additional listed/protected plant species, Hall's Mule Ear, *Wyethia elata*, CRPR 4.3 was identified within the Property Boundary during a field visit in September 2021. This plant is located primarily within the fuel break area along Mission Drive. Care should be taken to avoid this plant when reducing fuels within this area and/or treating invasive plants, such as tree-of-heaven and Klamathweed, which are in the same area.

Cultural Resources

There are several historical and pre-historical sites within the FMP area.

If FMP ground-disturbing activities are planned for areas within known prehistoric archaeological sites, limit ground disturbance to the degree possible (e.g. cut trees as close to ground level as possible, but do not pull out root balls; use topical herbicides to eradicate invasive species; complete reforestation projects in areas with no known archaeological sites).

Retain the services of a monitor – either a member of the Tribe who is an experienced archaeological monitor and/or a qualified professional archaeologist be retained to observe ground disturbing activities.

Endeavor to establish logging roads or consistent routes for tree extraction that focus disturbance to the minimum footprint possible.

All identified archaeological sites (see map on page 46 and AES arch report dated 2021) shall have a 25’ equipment exclusion zone (EEZ) flagged on the ground if any heavy equipment operation is expected in the immediate vicinity.

Recreation, Visual and Public Safety Resources

Traditional recreational uses of the FMP area include hiking, firewood, plant collecting and hunting.

The visual backdrop of the FMP area is the wooded and brushy hillside to the north and east, the valley to the west is below and obscured by vegetation. Valley views can be found in some locations. The property is situated on a gentle ridge, visual resources are limited both in and out.

Public safety is not currently threatened by any project work but has been threatened by recent wildfire.

Management Alternatives

To recognize a range of attitudes and approaches towards management of the Rancheria Forest and evaluate the trade-offs of a range of management intensities, two management alternatives have been proposed.

Alternative 1: Historical Effort (no action)

This alternative is one in which no change from the current level of management is proposed. Road maintenance would continue to occur in the same manner it has in the past. No fuel treatment or wood cutting activities would be implemented beyond what is currently taking place.

Alternative 2: Moderate Effort (preferred alternative)

This alternative would include fuel reduction in the form of grazing, fuel breaks along road access and around structures.

Potential Impacts and Proposed Mitigations by Alternative

Air Quality and Noise

Alternative #1

No impact, no sensitive receptors.

Alternative #2

The higher level of treatment activity would not result in significantly greater impacts to air quality or noise.

Geology and Soils

Alternative #1

Current management activates are not presently impacting erosion on the property. These management activities appear adequate.

Alternative #2

Fuel reduction treatments as proposed will allow onsite review of potential erosion issues and applications of Best Management Practices will reduce and or illuminate future erosion issues.

Water Quality

Alternative #1

Current management activates are not presently impacting water quality on the property. These management activities appear adequate.

Alternative #2

Fuel reduction treatments as proposed will allow onsite review of potential water quality issues and applications of Best Management Practices will reduce and or illuminate future water quality issues.

Wildlife and Fisheries

Alternative #1

Wildlife are not significantly impacted under this management alternative.

Alternative #2

Wildlife are not significantly impacted under this management alternative. The sprouting of vegetation and management of fuel reduction corridors will improve access to wildlife. Reduction of invasive species will also improve wildlife habitat.

Cultural Resources

Alternative #1

Current management activities are not presently impacting cultural resources.

Alternative #2

If FMP ground-disturbing activities are planned for areas within known prehistoric archaeological sites, limit ground disturbance to the degree possible (e.g. cut trees as close to ground level as possible, but do not pull out root balls; use topical herbicides to eradicate invasive species; complete reforestation projects in areas with no known archaeological sites).

Retain the services of a monitor – either a member of the Tribe who is an experienced archaeological monitor and/or a qualified professional archaeologist be retained to observe ground disturbing activities.

Endeavor to establish logging roads or consistent routes for tree extraction that focus disturbance to the minimum footprint possible.

All identified archaeological sites (see map on page 46 and AES arch report dated 2021) shall have a 25' equipment exclusion zone (EEZ) flagged on the ground if any heavy equipment operation is expected in the immediate vicinity.

Recreation, Visual and Public Safety

Alternative #1

Current management activates are not presently impacting this resource. These management activities appear appropriate.

Alternative #2

No significant change is expected with implementation of these proposed management activities.

Socio-economic

Alternative #1

Current management activates are not presently impacting this resource. These management activities appear appropriate

Alternative #2

Implementation of grazing will generate potential income to help offset the cost of fencing. The reduction of fuel loads associated with the fuel break and structure protection will generate job opportunities.

Forest Resources (Timber, Fuels, Insects, Roads)

Alternative #1

Current management activates are not presently impacting this resources.

Alternative #2

Commercial forest resources are not present on the property. Implementation of the proposed management activities will reduce fuel loads and related fire intensity on the property. Forest health will also be improved by the control of invasive species.

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APPENDIX B.
CULTURAL RESOURCES STUDIES: FOREST MANAGEMENT PLAN AND TRUST ALLOTMENTS FUELS REDUCTION PROJECT
(BOUND UNDER SEPARATE COVER)