MITIGATED NEGATIVE DECLARATION

Groveland Community Services District Trails Improvements Project

July 2022

PREPARED FOR:

Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

PREPARED BY:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Initial Study/Mitigated Negative Declaration

Groveland Community Services District
Trails Improvements Project

Prepared for:

Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

Contact: Peter Kampa, General Manager
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July 2022

TABLE OF CONTENTS

Chapter 1

INTRODUCTION

INTRODUCTION

1.1 Project Summary

This document is the Initial Study/Mitigated Negative Declaration describing the potential environmental effects of implementing a series of upgrades to the Groveland Community Services District (CSD) trails. The proposed Project involves construction and operation of approximately 2.5 miles of concrete and dirt trails, installation of two pedestrian bridges, and construction of trail facilities such as kiosks, benches, culverts, and safety rails. The Project also involves improvements to Mary Laveroni Park, such as new restrooms, a walking loop, an amphitheater, a transit shelter, and related improvements. The proposed Project is more fully described in Chapter Two – Project Description.

The Groveland Community Services District will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines.*

1.2 Document Format

This IS/MND contains five chapters, and appendices. Section 1, Introduction, provides an overview of the project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of project objectives and components. Chapter 3, Initial Study Checklist, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, Mitigation Monitoring and Reporting Program, provides the proposed mitigation measures, completion timeline, and person/agency responsible for implementation and Chapter 5, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

Environmental impacts are separated into the following categories:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less Than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. "No Impact" answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (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.)

Regardless of the type of CEQA document that must be prepared, the basic purpose of the CEQA process as set forth in the CEQA Guidelines Section 15002(a) is to:

(1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
(2) Identify ways that environmental damage can be avoided or significantly reduced.
(3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
(4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

According to Section 15070(b), a Mitigated Negative Declaration is appropriate if it is determined that:

(1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

The Initial Study contained in Section Three of this document has determined that with mitigation measures and features incorporated into the project design and operation, the environmental impacts are less than significant and therefore a Mitigated Negative Declaration will be adopted.

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Location

The proposed Project will take place in the community of Groveland in western Tuolumne County (See Figure 1). The community lies along State Route 120, east of State Route 49 and is within the Groveland Community Services District (CSD or District). Yosemite National Park lies approximately 23 miles southeast of the Project site. Project elevation ranges from approximately 2800 feet to approximately 2900 feet above mean sea level. The proposed Project is located in Township 1S, Range 16E, Sections 20, 21, 23, 27, 29 and 30, MDB&M and proposed improvements are shown in Figures 2 through 6. The locations of each Project component are described in more detail in the Project Description below.

2.2 Setting and Surrounding Land Use

The Project area consists of cismontane woodland as well as developed and disturbed land cover (commercial and residential development). The alignment of the existing and proposed trail runs along dirt roads/paths, cismontane woodland land cover and is adjacent to commercial development and roadways. Mary Laveroni Park is a 2.3-acre community park that consists of parking areas (asphalt/paving), picnic areas, restrooms, the Groveland Youth Center, and other related structures and improvements. An unnamed intermittent and ephemeral stream occurs within the Project area.

2.3 Project Description

The proposed Project consists of the following:

- Construction and operation of approximately 2.5 miles of 12-foot-wide concrete paths and dirt trails for pedestrian recreational use. The trail will begin at an existing baseball field located approximately 1400 feet north of the Groveland CSD Offices (Figure 2). The trail will continue south and southeast where it will intersect with another new trail alignment (Figure 3). From there, the trail goes south and west past the Mary Laveroni Park (where the trail will intersect with the Park and will also continue westward). The

trail continues west where it will meet the Jefferson Mine Trail Loop (Figure 4 and Figure 5). Light posts will be installed along the trail every 150 feet.

- Construction and operation of two pedestrian bridges along the trail (Figure 3). The pedestrian bridges will span across the entire creek bed to avoid impacts to the creek. An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 30-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. This pedestrian bridge will provide access to/from the trail and Mary Laveroni Park.
- The trail will also include the construction of:
    - Kiosks
    - Benches
    - Trash Receptacles
    - Wayfinding Signage
    - Lights
    - An approximately 40 linear feet retaining wall adjacent to the 65 linear feet bridge on the east side of the creek
    - An 18" drainage culvert adjacent to the retaining wall
    - 3,400 linear feet of chain link fence throughout the entire path
    - Safety Rails on the inner side of the trail along the creek
- Improvements to Mary Laveroni Park (Figure 6):
    - 1/3 mile Walking Loop (ADA compliant)
    - Outdoor Adventure Play and Team Building Course
    - Amphitheater
    - Trailhead Flex Court
    - Creekside Nature Trail and Demonstration Gardens
    - Picnic and Events Plaza
    - New restrooms
    - New Sidewalks

- New Benches
- New Trash Receptacles
- Planters along Main Street
- New Transit Shelter with benches and trash receptacle
- Replacement of Picnic Benches
- Property cleanup and associated improvements

2.5 Objectives

The primary objectives of the proposed Project are as follows:

- The District's primary objective is to provide recreational opportunities for the local community.
- The District seeks to increase healthy outdoor activities in the area.
- The District seeks to construct and operate the proposed trail and park improvements with the most cost-effective methods available that meet the District's objectives and regulatory compliance requirements.

2.6 Other Required Approvals

The proposed Project will include, but not be limited to, the following regulatory requirements:

- The adoption of a Mitigated Negative Declaration by the Groveland Community Services District
- Tuolumne County Air Pollution Control District (permit to construct)

Figure 1 – Regional Location Map

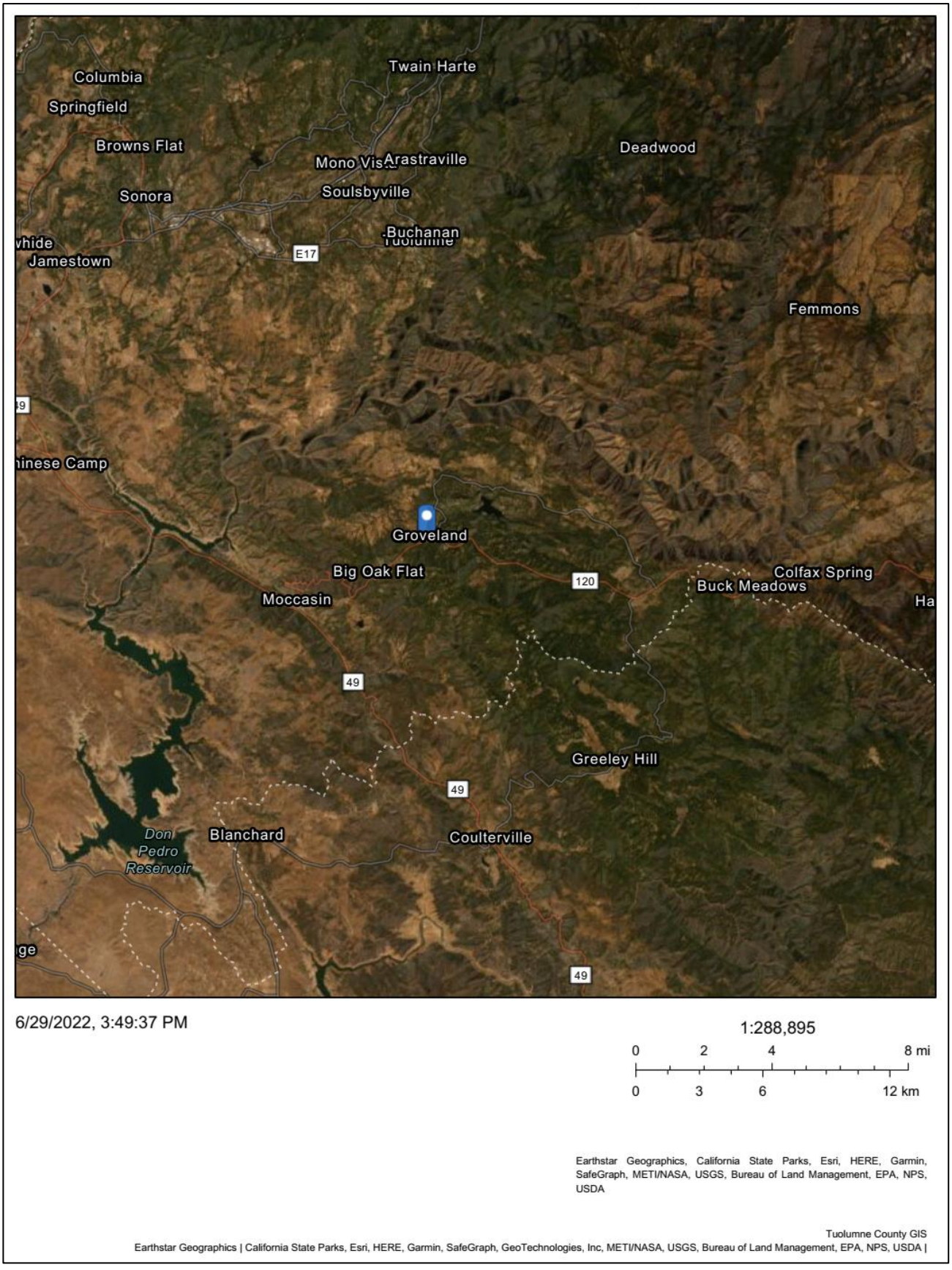


Figure 2 – Trail Segment 1

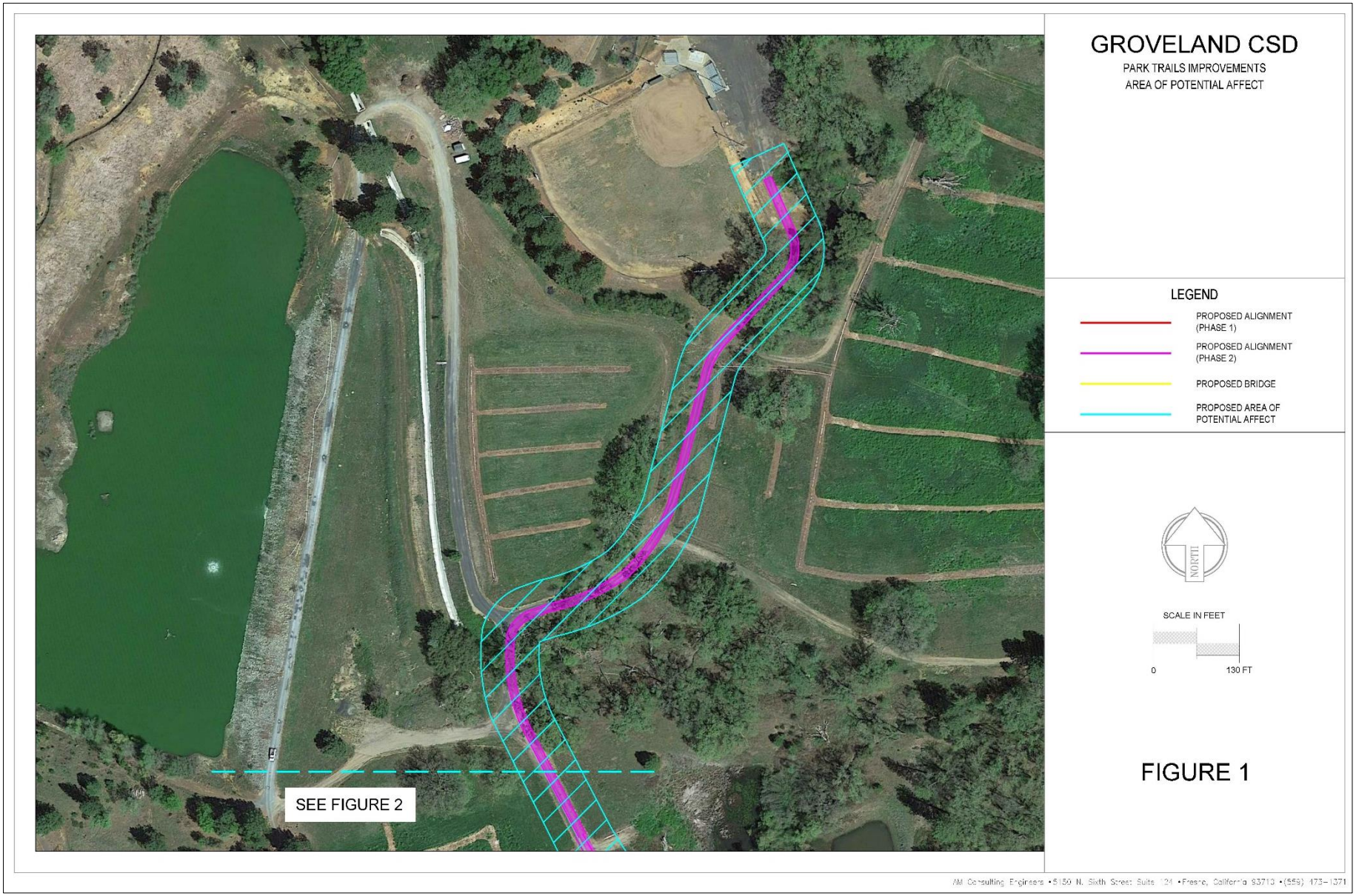


Figure 3 – Trail Segment 2

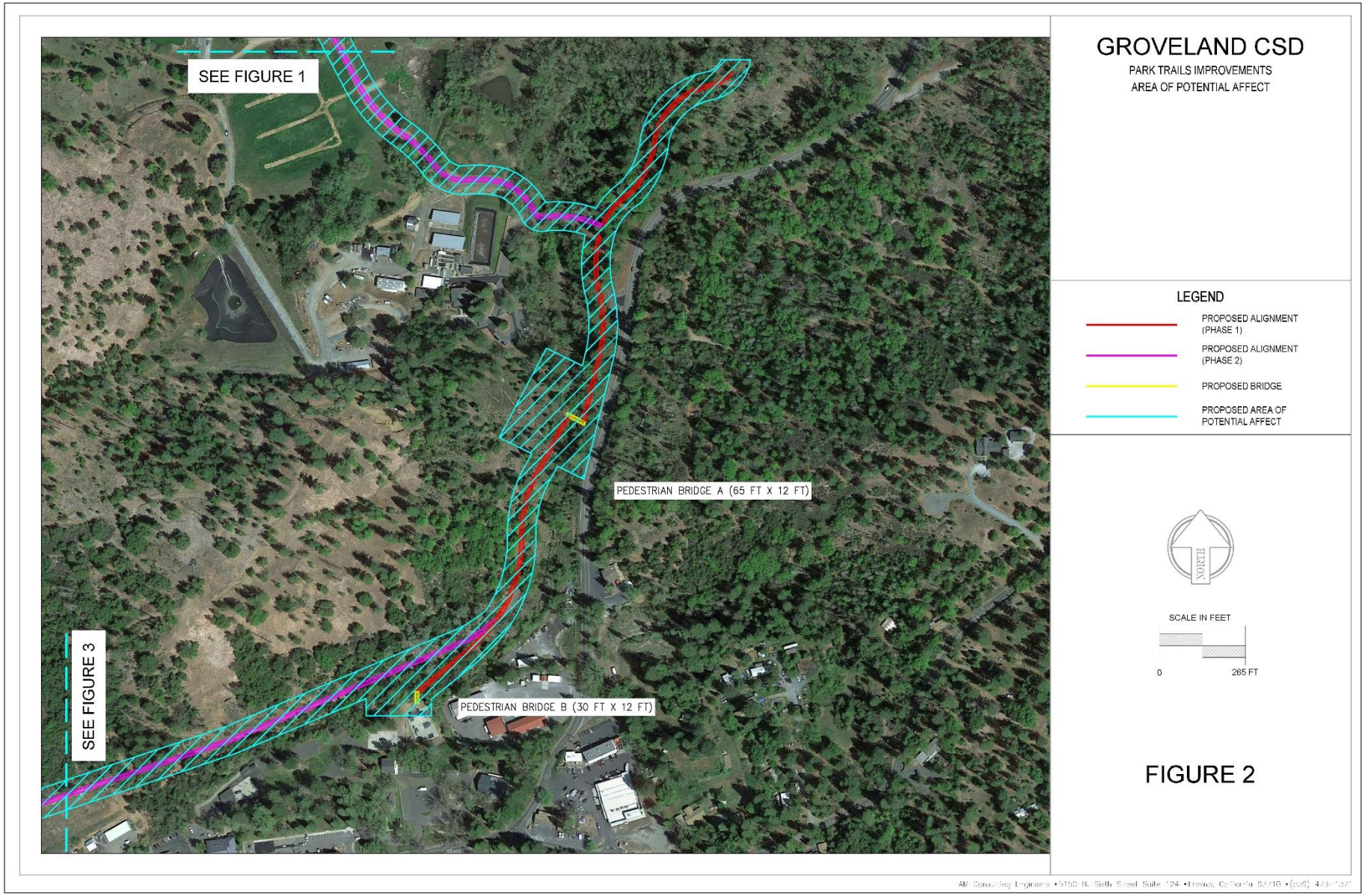


Figure 4 – Trail Segment 3

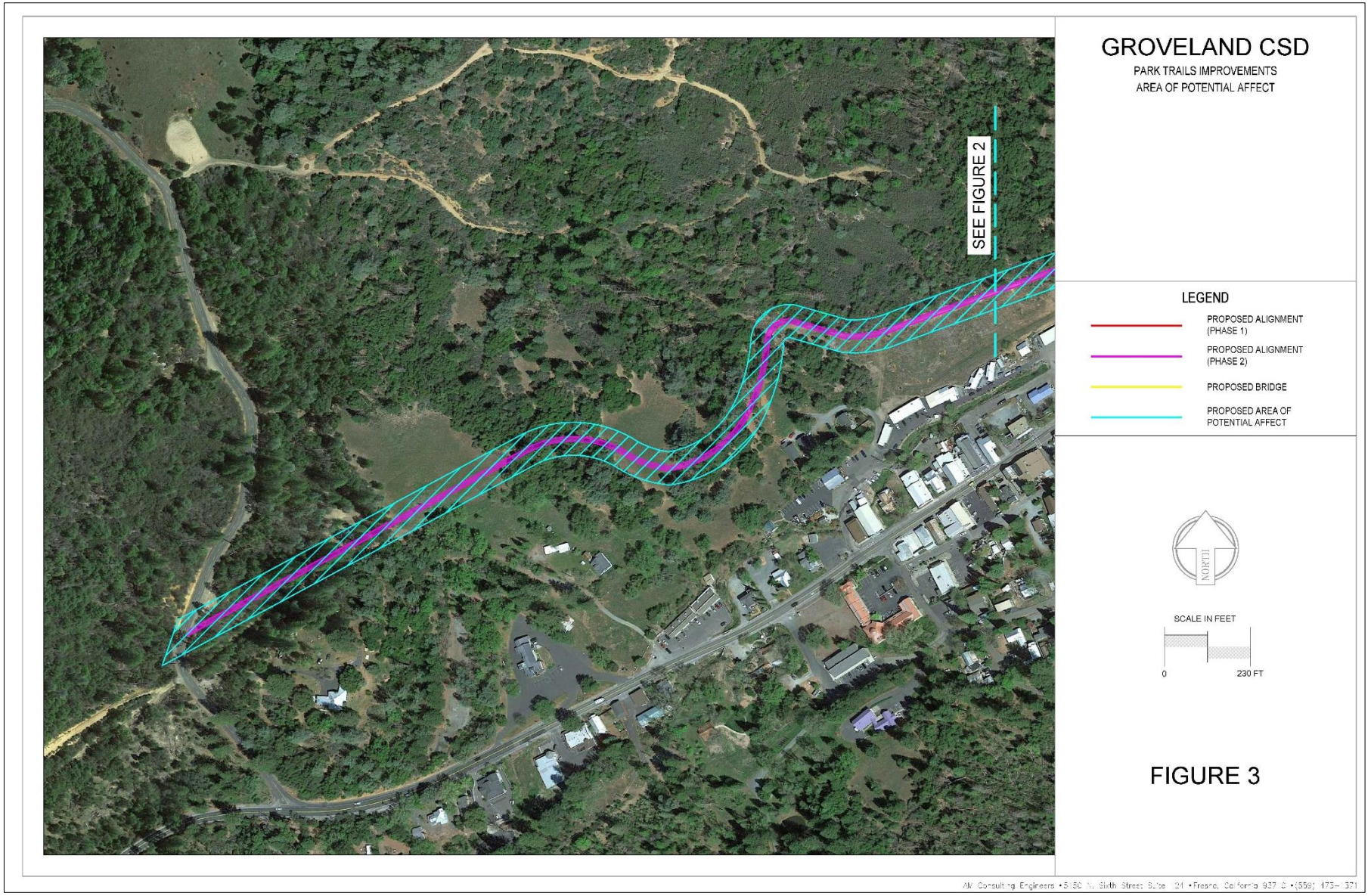


Figure 5 – Trail Segment - Jefferson Mine Trail Loop

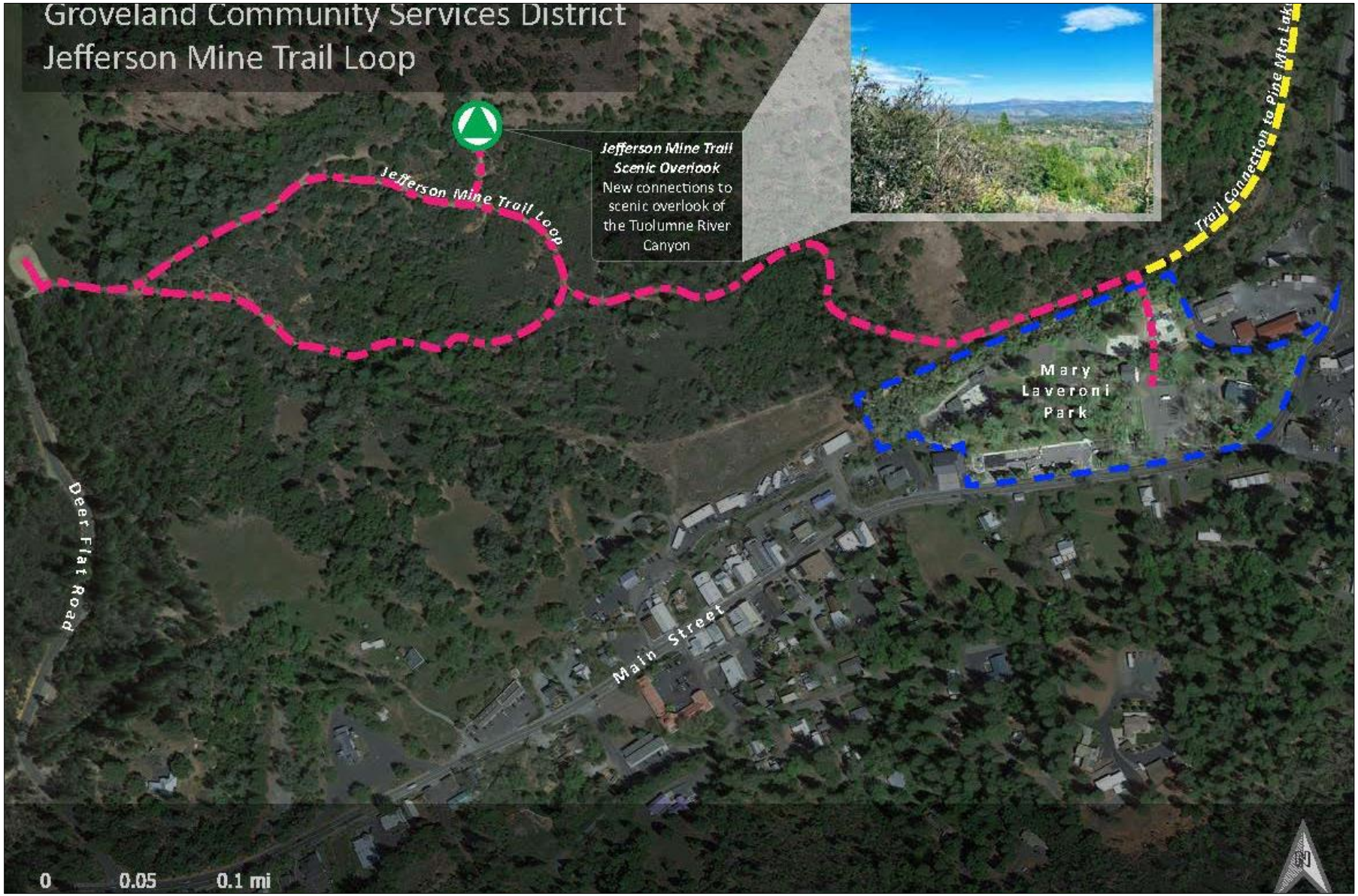
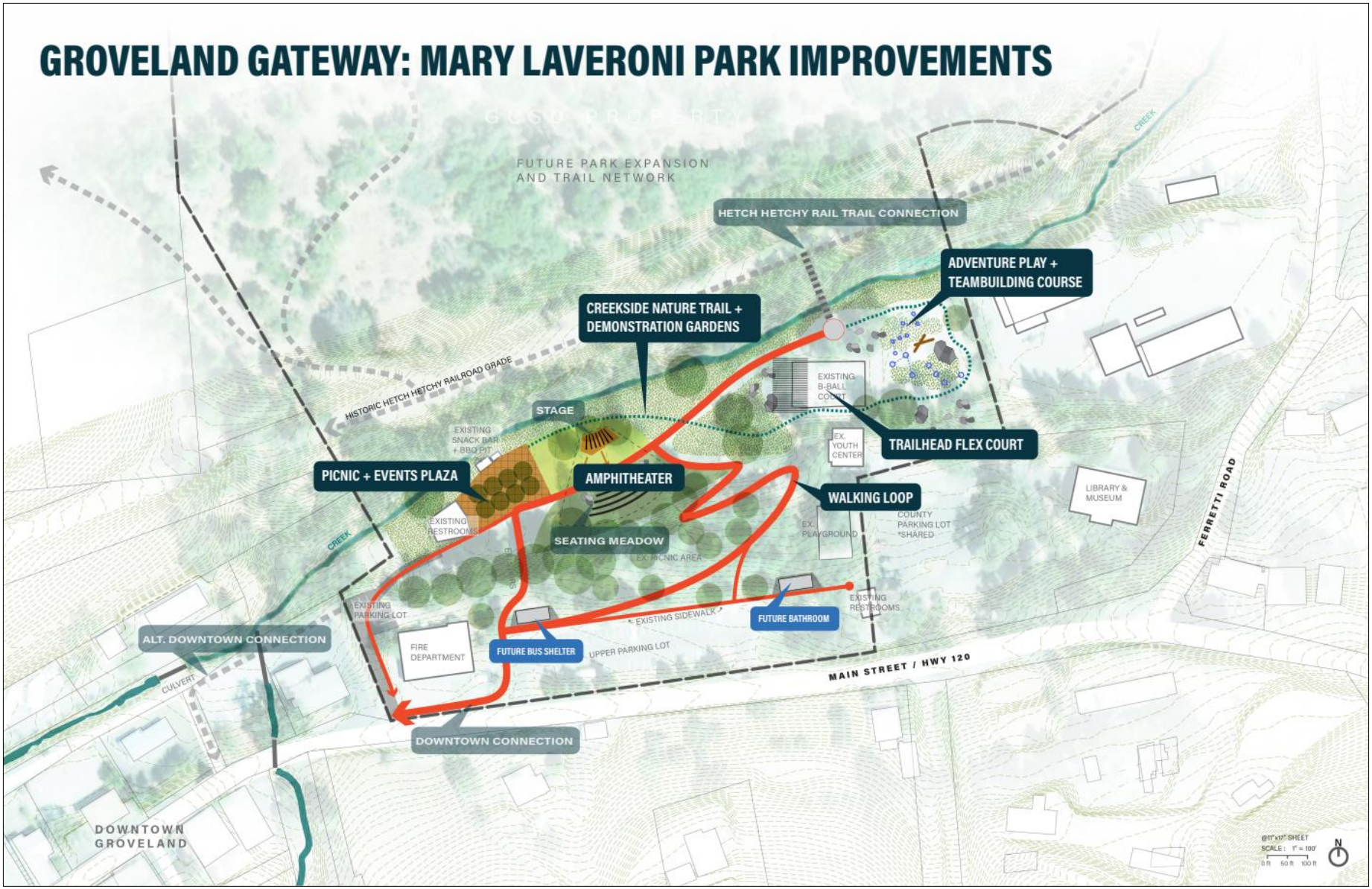


Figure 6 – Mary Laveroni Park Improvements



Chapter 3

IMPACT ANALYSIS

Initial Study Checklist

3.1 Environmental Checklist Form

Project title:

Groveland Trails Improvements Project

Lead agency name and address:

Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

Contact person and phone number:

Peter Kampa, General Manager: (209) 962-7161, ext. 24
Alfonso Manrique, PE: (559) 473-1371

Project location:

See Section 2.1

Project sponsor's name/address:

Groveland Community Services District

General plan designation:

Various, District-wide project

Zoning:

Various, District-wide project

Description of project:

See Section 2.3

Surrounding land uses/setting:

See Section 2.2

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

See Section 2.6

California Native American Tribal Consultation:

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, has consultation begun or is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In accordance with Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The Native American Heritage Commission was contacted, requesting a contact list of applicable Native American Tribes, which was provided. Letters were provided to the listed Tribes, notifying them of the Project and requesting consultation, if desired. No further consultation was requested.

3.2 Environmental Factors Potentially Affected

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

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

3.3 Determination

Based on 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.

July 7, 2022

(Travis Crawford, Environmental Consultant) for

Peter Kampa

General Manager

Groveland Community Services District

Date

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
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 regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

RESPONSES

a. Have a substantial adverse effect on a scenic vista?
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements. Any improvements or additions to trails and parks facilities will be similar to existing facilities and will not introduce new features that are not already common to the built environment in the area. Many of the proposed improvements will be installed at ground level and views of surrounding areas will

not be substantially impacted by the project. As such, the proposed Project will not substantially impede any scenic vistas.

Construction activities will occur over a 12-month period and will be visible from the adjacent residences, businesses and roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista, as described above.

There are no state designated scenic highways within the vicinity of the proposed Project site.[1] California Department of Transportation Scenic Highway Mapping System identifies portions of State Routes 49 and 108 in Tuolumne County (north and west of the Project site) as being eligible for state scenic highway designation, but they are not officially designated. The proposed Project would not damage any trees, rock outcroppings or historic buildings within a State scenic highway corridor. Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

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 regulations governing scenic quality?

Less than Significant Impact. The proposed Project would result in minor alterations to the existing visual character of public views of the site. Some of the Project components, such as the trails are located at-grade and will not be visible from the adjacent roadsides. Above-ground structures will consist of the pedestrian bridges, benches, restroom, kiosks, a transit shelter, and other structures associated with the Mary Laveroni Park improvements. Once constructed, the Project will not result in a substantial change to the existing visual nature. The improvements such as those proposed by the Project are typical of community public recreational facility areas and are generally expected from residents of a community.

Construction activities will be seen by the residences and businesses within the immediate vicinity and by vehicles driving in the District; however, construction activities will be temporary.

[1] California Department of Transportation. California Scenic Highway Mapping System. Tuolumne County. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed August 2018.

As such, the proposed Project will not substantially degrade the existing visual character or quality of the area or its surroundings.

The impact will be ***less than significant***.

Mitigation Measures: None are required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Currently the sources of light in the project area are from building lights, the vehicles traveling along surrounding roads, and some security lighting at nearby businesses and some residences. Lighting associated with the Project include lighting along the trails and improved lighting in the Mary Laveroni Park. Additional night lighting sources on the Project site, especially any unshielded light, could result in spillover light that could impact surrounding properties. This would create new sources of light that could potentially have a significant impact on nighttime light levels in the area. However, District staff will review lighting plans to ensure that lights are located in areas that will minimize light sources to neighboring properties. All outdoor lighting shall be hooded, directed downward, and permanently maintained to not shine towards adjacent properties and roads. Accordingly, there is a ***less than significant impact.***

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

RESPONSES

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?

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

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))?

d. Result in the loss of forest land or conversion of forest land to non-forest use?

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?

No Impact. The Farmland Mapping and Monitoring Program has not mapped farmland in Tuolumne County and as such, the Project does not include conversion of designated farmland to non-farmland. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements. The proposed Project does not have the potential to result in the conversion of farmland to non-agricultural uses or forestland uses to non-forestland.

There are no agricultural lands in the District under a Williamson Act Contract. The proposed Project does not include land under a Williamson Act Contract. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the proposed Project.

All improvements will take place within an area that is open space and already in use as a recreational facilities. As such, the proposed Project does not have the potential to result in the conversion of Farmland to non-agricultural uses or forestland uses to non-forestland. There is ***no impact***.

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. 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?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	☐	☐	☒	☐

RESPONSES

a. Conflict with or obstruct implementation of the applicable air quality plan?

b. 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?

c. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. The Tuolumne County Air Pollution Control District (TCAPCD) is designated nonattainment of state air quality standards for ozone.[2] Because of the region's non-attainment status for ozone, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NOx) were to exceed the TCAPCD's significance thresholds of 100 tons per year of ROG or

[2] Section 4.3 Air Quality. Tuolumne County General Plan Update EIR. https://www.tuolumnecounty.ca.gov/DocumentCenter/View/5789/43-Air-Quality?bidId=, pg 4.3-4

NOX[3], then the project uses would be considered to conflict with the attainment plan. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

As discussed below, predicted construction and operational emissions would not exceed the TCAPCD's significance thresholds for ROG, NOx, PM_{10}, and $PM_{2.5}$. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans, and would not result in a significant contribution to the region's air quality non-attainment status. Additionally, the Project would comply with all applicable rules and regulations.

The proposed Project would generate emissions associated with the construction of concrete trail paths, two pedestrian bridges along the trail, transit shelters, kiosks, benches, culverts, and other associated improvements, both from worker vehicle trips and from construction equipment. Construction emissions would be considered short-term and temporary emissions because construction emissions would cease following completion of installation. Following construction activities, operation of the project would be a passive process. No increase in long-term operations emissions is anticipated to occur and as such, any impacts would be less than significant.

The nonattainment pollutant for the TCAPCD is ozone. Therefore, the pollutants of concern for this impact are ozone precursors. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the Project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts.

The annual significance thresholds to be used for the Project emissions are as follows[4]:

- Reactive Organic Gases (ROG) – 1,000 lbs/day or 100 tons per year
- Oxides of Nitrogen (NOx) – 1,000 lbs/day or 100 tons per year
- Particulate Matter (PM10) – 1,000 lbs/day or 100 tons per year
- Carbon Monoxide (CO) – 1,000 lbs/day or 100 tons per year

As mentioned previously, the trails, pedestrian bridges and park improvements will not generate emissions once they are constructed. The estimated annual construction emissions are shown below. Modeling results are provided in Table 1 and the air emission output files are provided in Appendix A.

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[3] Tuolumne County Air Pollution Control District. CEQA Thresholds of Significance. https://www.tuolumnecounty.ca.gov/DocumentCenter/View/1072/TCAPCD_Significance_Thresholds__2_?bidId=.

[4] Tuolumne County Air Pollution Control District. CEQA Thresholds of Significance. https://www.tuolumnecounty.ca.gov/DocumentCenter/View/1072/TCAPCD_Significance_Thresholds__2_?bidId=.

Table 1
Proposed Project Construction Emissions

Pollutant/ Precursor	Construction Emissions (tpy)	Threshold/Exceed?
CO	5.73	100 / **N**
NOx	4.62	100 / **N**
ROG	0.78	100 / **N**
PM_{10}	0.95	100 / **N**

Any impacts would be considered ***less than significant***.

Mitigation Measures: None are required.

e. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Less Than Significant Impact. During construction, the various diesel-powered vehicles and equipment in use on-site could create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site. In addition, once the Project is operational, there would be no source of odors from the Project. Therefore, the impact is ***less than significant.***

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☒	☐	☐

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

RESPONSES

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?

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation. A Biological Assessment for the Groveland Trails Improvements Project was prepared in June 2022 for the proposed Project (See Appendix B). The results of the Assessment are summarized herein.

Environmental Setting

The Project area consists of cismontane woodland as well as developed and disturbed land cover (commercial and residential development). The alignment of the existing and proposed trail runs along dirt roads/paths, cismontane woodland land cover and is adjacent to commercial development and roadways. Mary Laveroni Park is a 2.3-acre community park that consists of parking areas (asphalt/paving), picnic areas, restrooms, the Groveland Youth Center, and other

related structures and improvements. An unnamed intermittent and ephemeral stream occurs within the Project area (See Appendix B, Figures 1 – 5).

Desktop Review

As a framework for the evaluation, Crawford & Bowen Planning, Inc. (Crawford & Bowen) searched the California Natural Diversity Data Base (CNDDB, CDFW 2022) and the California Native Plant Society's Inventory of Rare and Endangered Plants for records of special-status plant and animal species in the Project area. Regional lists of special-status species were compiled using database searches confined to the Groveland 7.5-minute United States Geological Survey (USGS) topographic quad, which encompasses the Project site, and the eight surrounding quads (Buckhorn Peak, Coulterville, Duckwall Mountain, Jawbone Ridge, Moccasin, Penon Blanco Peak, Standard, and Tuolumne). Local lists of special status species were compiled using CNDDB records (See Appendix B). Species for which the Project site does not provide habitat were eliminated from further consideration. Crawford & Bowen also reviewed aerial imagery from Google Earth and other sources, USGS topographic maps, and relevant literature.

In addition, Groveland CSD had previously enlisted Colibri Ecological Consulting, Inc. to conduct several biological surveys for projects in the proposed Trails Project area within the last several years. These were conducted as part of the environmental review processes for the Groveland CSD's sewer and water infrastructure improvements projects as follows:

- "Downtown Groveland and Big Oak Flat Sewer Collection System Improvements Project (State Clearinghouse #2019059053).
- Groveland Community Services District Water Distribution System Improvements (State Clearinghouse #2018102031).

The biological surveys conducted for these projects were in the general vicinity of the proposed Project. The species listed below are the species that were identified in the adjacent surveys and it is assumed that similar biological resources existing within the proposed Project areas. However, pre-construction surveys will determine any sensitive or protected habitat as identified below.

Effects Determinations

Special-Status Species

The northwestern pond turtle and western red bat were identified in the desktop review as having potential to occur on or near the Project site due to the presence of habitat in the Project area:

- Northwestern pond turtle uses aquatic habitats such as creeks, streams, or irrigation ditches for movements and foraging and adjacent upland areas for egg laying. The Project site is adjacent to and crosses a drainage creek that could support this species. Therefore, this assessment concludes the Project may affect but is not likely to adversely affect northwestern pond turtle.
- Western red bat uses trees, tree cavities, and peeling bark for roosting. Because several riparian trees that qualify as habitat may be removed to facilitate trail installation activities, this assessment concludes the Project may affect but is not likely to adversely affect this species.

Migratory Birds

This assessment concludes that the Project may affect but is not likely to adversely affect nesting migratory birds.

Regulated Habitats

These habitats consist of intermittent and ephemeral streams under the regulatory jurisdiction of the USACE, the RWQCB, and the CDFW. The Project includes construction and operation of two pedestrian bridges along the new trail that will cross an unnamed intermittent and ephemeral stream. However, the pedestrian bridges will span across the entire creek beds to avoid impacts to the creek and to avoid impacts below the Ordinary High Water Mark (OHWM). An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 30-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. No work within the creek bed below the OHWM will occur. Should it be determined that the proposed pedestrian bridges require work within the creek bed, below the OHWM, the Project would be subject to regulatory permitting through the California Department of Fish & Wildlife (Section 1602 Streambed Alteration), the U.S. Army Corps (Section 404) and the Regional Water Quality Control Board (Section 401).

Direct and Indirect Impacts

The Project could have a substantial, direct adverse effect on northwestern pond turtle, a native reptile designated by the CDFW as a Species of Special Concern. Northwestern pond turtle uses a variety of aquatic habitats including streams, creeks, ponds, lakes, and canals for shelter, foraging, and basking and lays its eggs in upland areas adjacent to these aquatic habitats. Because the Project will involve excavation and staging adjacent to multiple sections of an intermittent and ephemeral stream that could support this species at some time during the year, incidental loss of animals or eggs could occur. Therefore, this assessment recommends that Mitigation Measure BIO-1 (below) be included in the conditions of approval to reduce the potential impact to a ***less than significant level.***

The Project could also have a substantial, direct adverse effect on western red bat, a native bat species designated by the CDFW as a Species of Special Concern. Western red bat uses trees for roosting and pupping habitat. This species often uses trees on the edges of streams, open fields, and urban areas, approximately 2-40 feet above ground level (Zeiner et al. 1988-1990). Because the Project may require that riparian trees be removed at work locations, incidental loss of animals or young from these trees could occur. Therefore, this assessment recommends that Mitigation Measure BIO-1 and BIO-2 (below) be included in the conditions of approval to reduce the potential impact to a ***less than significant level***.

Mitigation Measures:

BIO-1: Protect northwestern pond turtle

1. To the extent practicable, construction in and adjacent to intermittent and ephemeral streams shall be scheduled to occur when these streams are dry (approximately mid-July through October) to avoid the possibility of northwestern pond turtle being present at the worksite.
2. If it is not possible to schedule construction between August and October, preconstruction surveys for northwestern pond turtle shall be conducted by a qualified biologist to determine if turtles are occupying streamside worksites. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all sections of stream within 300 feet of planned work activities, including adjacent upland areas, for turtles and nests; northwestern pond turtle nests in upland areas within several hundred feet of water in the spring, typically during the months of April and May. If a turtle or nest is found within 300 feet of the worksite, a qualified biological monitor shall remain on site during construction to ensure that no turtles or turtle nests are impacted by work activities. Any turtle found on or adjacent to the worksite shall be allowed to leave on its own.

BIO-2: Protect western red bat.

1. To the extent practicable, construction shall be scheduled to avoid the birthing and pupping season for western red bat, which extends from May through August.
2. If it is not possible to schedule construction between September and April, preconstruction surveys for roosting bats shall be conducted by a qualified biologist to ensure that no active maternal colonies will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential colony substrates in and immediately adjacent to the impact areas for maternity roosts. If an active maternity roost is found close enough to the construction area to be disturbed by work

activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the colony. If work cannot proceed without disturbing the colony, work may need to be halted or redirected to other areas until young are able to fly or the colony has otherwise failed for non-construction related reasons.

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?

Less Than Significant Impact. The proposed Project has been designed to avoid any wetland areas. The Project includes construction and operation of two pedestrian bridges along the new trail that will cross an intermittent and ephemeral stream. However, the pedestrian bridges will span across the entire creek beds to avoid impacts to the creek and to avoid impacts below the Ordinary High Water Mark (OHWM). An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 35-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. No work within the creek bed below the OHWM will occur. Should it be determined that the proposed pedestrian bridges require work within the creek bed, below the OHWM, the Project would be subject to regulatory permitting through the California Department of Fish & Wildlife (Section 1602 Streambed Alteration), the U.S. Army Corps (Section 404) and the Regional Water Quality Control Board (Section 401). Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

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?

Less Than Significant with Mitigation. No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the Project area. The streams in the Project area do not contain the perennial or prolonged flows necessary to support fish. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the Project area.

The Project has the potential to impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Migratory birds are expected to nest on

and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. Construction activities such as excavation, trenching, water main or water valve installation, and mobilizing or demobilizing construction equipment that disturb a nesting bird on the site or immediately adjacent to the construction zone could constitute a significant impact.

The Biological Assessment recommends that Mitigation Measure BIO-3 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

BIO-3: Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

e. <u>Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</u>

f. <u>Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</u>

No Impact. There are no local policies or ordinances that the Project will conflict with. Additionally, there are no adopted local, regional, or state habitat conservation plans adopted for the area. As such, there is ***no impact.***

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

RESPONSES

a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation. A Phase I cultural resources survey was conducted for the Project by ASM Affiliates, Inc. The complete report can be found in Appendix C. The study area including the proposed trail and park improvements with the survey buffer totals approximately 34-acres. Background studies for the survey were completed in October 2021 and April 2022, while the fieldwork was completed in May 4-6, 2022. The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study area; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

Records Search Results

A records search of site files and maps conducted by the Central California Information Center (CCIC), California State University, Stanislaus in October 2021 for a previous project for Groveland CSD was consulted for the current study.

Portions of seven previously recorded resources (P-55-000110, P-55-000719, P-55-000721, P-55-001040, P-55-002367, P-55-002368, and P-55-004934) are located within the study area. Of the seven previously recorded resources, six are historic mining or railroad related sites and one is a prehistoric habitation site (P-55-001040; previously updated by ASM in 2021). Due to the limited scope of the proposed project (i.e., within linear corridors along existing roads and paths) and the large size of several of the previously recorded sites, only the portions of the sites within the study area, with few exceptions, were updated during the survey.

Native American Consultation

A Sacred Lands File (SLF) request submitted to the Native American Heritage Commission (NAHC) on September 13, 2021, for the same Groveland CSD Project, which included the current study area, was reviewed for this project. No concerns were raised by contacted tribes at that time. The tribal consultation undertaken for the previous Groveland CSD Project is considered sufficient to cover the current project.

Field Methodology

ASM conducted a Phase I survey of the 34-ac study area on May 4-6, 2022. The study area was surveyed using 15-meter (m) parallel transects along the linear paths. The proposed trails follow existing roads and paths.

Description of Findings

Portions of sites P-55-000110, P-55-000719, P-55-000721 and P-55-002367 were identified within the study area and were updated. The portions of sites P-55-002368 and P-55-004394 located within the study area were investigated and no artifacts or features were identified. The portion of previously recorded prehistoric site P-55-001040 located within the study area was revisited and investigated and no cultural materials were identified.

Sites P-55-000110 and P-55-000719 consist of linear features only partially within the study area and they will not be impacted by proposed Project activities. Sites P-55-000721 and P-55-002367 have been previously recommended not eligible for the NRHP/CRHR and no existing site components will be impacted by proposed Project activities. No recorded features for sites P-55-002367 or P-55-004394 are located within the study area and they will therefore not be impacted by proposed Project activities.

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper and dignified treatment of the remains and associated grave artifacts.

Although unlikely given the highly disturbed nature of the site and the records search did not indicate the presence of such resources, subsurface construction activities associated with the proposed Project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on-site, no further disturbance shall occur until the Tuolumne County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. The NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98. Although considered unlikely subsurface construction activities could cause a potentially significant impact to previously undiscovered human burial sites, however compliance with regulations would reduce this impact to less than significant.

Therefore, it is unlikely that the proposed action will have an effect on important archaeological, historical, or other cultural resources. In the unlikely event that buried archaeological or historical deposits are encountered within the Project area, the finds must be evaluated by a qualified archaeologist. Should human remains be encountered, the County Coroner must be contacted immediately; if the remains are determined to be Native American, then the Native American Heritage Commission must be contacted as well.

Implementation of Mitigation Measure CUL-1 would ensure that significant impacts remain ***less than significant with mitigation incorporation.***

Mitigation Measures:

CUL-1: In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.

VI. ENERGY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

RESPONSES

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements. During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards would provide guidance on construction techniques for the plant house to maximize energy conservation and it is expected that contractors and the District have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Project energy consumption would be minimal, as the main source of energy use would be for the new lighting associated with the Project. Energy efficient lighting systems would be installed and would not represent a wasteful and inefficient use of energy. Operational energy would also be consumed during each vehicle trip associated with the proposed use for maintenance or otherwise.

As discussed in Impact XVII – Transportation/Traffic, the proposed Project would not generate substantial on-going daily vehicle trips. Parking is available at the Mary Laveroni Park for residents wishing to access the park and trails. Other trips include maintenance trips for the trail and park. The length of these trips and the individual vehicle fuel efficiencies are not known; therefore, the resulting energy consumption cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level, such as Title 24. The Project would also be subject to energy conservation requirements in the California Energy Code and CALGreen. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are ***less than significant***.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. 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.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently	☐	☐	☒	☐

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
adopted Uniform Building Code creating substantial direct or indirect risks to life or property?				
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

RESPONSES

a-i. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. The proposed Project site is not located within a designated Alquist-Priolo Earthquake Fault zone or a seismically active zone.[5]**;** thus, the risk of surface fault ruptures within the area is low. Any impacts would be l***ess than significant.***

Mitigation Measures: None are required.

[5] California Department of Conservation. California Geological Survey. CGS Information Warehouse: Regulatory Maps. https://maps.conservation.ca.gov/cgs/informationwarehouse/. Accessed June 2022.

a (ii-iv). Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, liquefaction or landslides?

Less than Significant Impact. The proposed Project site is not in an area recognized for severe seismic ground shaking, landslides or liquefaction.[6] Additionally, the project does not include the construction of substantial structures that would expose people or structures to adverse effects involving rupture of a known earthquake fault. Impacts would be ***less than significant.***

Mitigation Measures: None are required.

b. Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Construction activities associated with the Project involves excavation of soil for the new trail and installation of improvements at the Mary Laveroni Park. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. During construction, nuisance flow caused by minor rain could flow off-site. The District and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the Air District's fugitive dust control measures (See Section 3.3 – Air Quality). Once construction is complete, the Project would not result in soil erosion or loss of topsoil. Therefore, the impact is ***less than significant.***

Mitigation Measures: None are required.

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- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. As described in Impact VI (aii-aiv), the potential for landslides, liquefaction, settlement or other seismically related hazards is low. As such, any impacts will be ***less than significant.***

Mitigation Measures: None are required.

[6] Ibid.

d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less than Significant Impact. As described above, the potential for hazard from landslide and liquefaction in the project area is low. Therefore, the potential for liquefaction induced lateral spreading is also low. Causes of soil instability include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, liquefaction, and hydro-compaction.[7] The proposed Project does not include the on-site withdrawal of groundwater and the project site is not located in an area that has been subjected to activities that might cause soil instability. Because the project site has not been subject to activities that may cause soil instability, the risk of subsidence or collapse is expected to be low. Any impacts would be ***less than significant.***

Mitigation Measures: None are required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Less Than Significant Impact. The Project will not require installation of a septic tank or alternate wastewater disposal system. The new restroom facility proposed at the Mary Laveroni Park will connect to the District's existing wastewater system. Therefore, there would be a ***less than significant impact.***

Mitigation Measures: None are required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR

[7] USGS. California Water Science Center. Land Subsidence: Cause & Effect. https://ca.water.usgs.gov/land_subsidence/california-subsidence-cause-effect.html. Accessed August 2018.

Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

There are no unique geological features or known fossil-bearing sediments in the vicinity of the proposed Project site. However, there remains the possibility for previously unknown, buried paleontological resources or unique geological sites to be uncovered during subsurface construction activities. Implementation of Mitigation Measure CUL-1 would require inadvertently discovery practices to be implemented should previously undiscovered paleontological resources be located. As such, impacts to undiscovered paleontological resources would be ***less than significant.***

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

RESPONSES

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The proposed Project would generate exhaust-related GHG emissions during construction resulting from construction equipment operation, material haul and delivery trucks, and by trips by construction worker vehicles. Construction-related GHG emissions would occur for approximately twelve months and would cease following completion of the Project.

The proposed Project is not a significant land-use development project that would generate significant vehicle trips and is not a roadway capacity increasing project that could carry additional VMT. Therefore, the proposed Project would not result in a net increase in operational GHG emissions. As such, the proposed Project would not interfere or obstruct implementation of an applicable GHG emissions reduction plan. The proposed Project would be consistent with all applicable local plans, policies, and regulations for reducing GHG emissions. Any impacts related to GHG emissions would be ***less than significant.***

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency	☐	☐	☒	☐

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
response plan or emergency evacuation plan?				
g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

RESPONSES

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. While grading and construction activities may involve the limited transport, storage, use or disposal of hazardous materials, such as the fueling/servicing of construction equipment onsite, the activities would be short-term or one-time in nature and would be subject to federal, state, and local health and safety regulations.

Long-term operation of the proposed Project would involve little or no hazardous materials. Once operational, the Project will not emit hazardous materials, as it consists of installation of a recreational trail and improvements to an existing park.

With implementation of the proposed Project, there are no reasonably foreseeable upset and accident conditions that would create a significant hazard to the public due to the release of hazardous materials. Impacts are considered ***less than significant***.

Mitigation Measures: None are required.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. No schools are located within 0.25 miles of the Project site. nearest school is Tenaya Elementary School, located approximately 0.5 miles southeast of the Project site. As previously described, long-term operation of the proposed Project would involve little or no hazardous materials. Once operational, the Project will not emit hazardous materials and there are no schools located within 0.25 miles of the Project site. Therefore, there is ***no impact.***

Mitigation Measures: None are required.

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?

No Impact. The proposed Project site is not located on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (EnviroStor[8] and GeoTracker[9] databases) The nearest location is a closed mine site located at the corner of Cedar and Elm Streets in Tuolumne, approximately 8.5 miles to the north. The State Emergency Response Unit conducted the removal of approximately 100 cubic yards of arsenic, mercury, and lead contaminated soil, and the removal of 80 cubic yards of mine debris and brush. Cleanup status is certified as of 6/30/1999. The project is not impacted by the facility and as such, there is ***no impact.***

Mitigation Measures: None are required.

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?

Less Than Significant Impact. The closest airport to the Project is Pine Mountain Lake Airport located approximately three miles northeast of the Project site. Therefore, the Project has ***a less than significant impact*** on any airport operations.

Mitigation Measures: None are required.

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[8] California Department of Toxic Substance Control. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=groveland+CA Accessed June 2022.

[9] California State Water Resources Control Board. GeoTracker. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=groveland+ca. Accessed June 2022

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Project construction and operation would not require any road closures nor would they interfere with any adopted emergency response or evaluation plan. Adequate emergency access will be maintained at all times. As such, any impacts will be ***less than significant***.

Mitigation Measures: None are required.

g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. Implementation of the Project would not change the degree of exposure to wildfires because no new housing or businesses will be constructed. Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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 which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- 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. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

RESPONSES

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements.

Construction

Excavation, removal of vegetation cover, and soil-impacting activities associated with construction of the Project could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, "good housekeeping" procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These best management practices (BMPs) would be required in the Storm Water Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction activities. When properly designed and implemented, these "good-housekeeping" practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollutant Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a Storm Water Pollution Prevention Plan (SWPPP) designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the RWQCB has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement. Preparation of a SWPPP is a regulatory requirement of the Project and thus is not listed as a mitigation measure. Compliance with the NPDES and SWPPP would ensure that the proposed Project would have a less than significant impact relative to this topic.

Pedestrian Bridges

The Project includes construction and operation of two pedestrian bridges along the new trail that will cross an unnamed intermittent and ephemeral stream. However, the pedestrian bridges will span across the entire creek beds to avoid impacts to the creek and to avoid impacts below the Ordinary High Water Mark (OHWM). An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 30-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. No work within the creek bed below the OHWM will occur. Should it be determined that the proposed pedestrian bridges require work within the creek bed, below the OHWM, the Project would be subject to regulatory permitting through the California Department of Fish & Wildlife (Section 1602 Streambed Alteration), the U.S. Army Corps (Section 404) and the Regional Water Quality Control Board (Section 401).

Operation

The Project includes the construction of a new restroom facility at the Mary Laveroni Park. This restroom will generate waste that is typical of other urban uses in the District. This Project does not include any

expansion of wastewater treatment facilities or processes that would result in the production of chemicals or substances that would adversely impact local water quality beyond existing conditions.

There are no aspects of the Project that would result in changes to waste discharge requirements, water quality standards or otherwise degrade water quality. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Project demands for groundwater resources in connection with the proposed Project for new restrooms at the Mary Laveroni Park would not substantially deplete groundwater supplies and/or otherwise interfere with groundwater recharge efforts, as it will require only minimal potable water to serve the restroom. All potential development will be required to adhere to all City and State mandated water conservation measures and regulations. As such, any impacts to groundwater supplies will be ***less than significant***.

Mitigation Measures: None are required.

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 which would:

i. result in substantial erosion or siltation on- or offsite;

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?

Less than Significant Impact. Development of the Project will result in the addition of impervious surfaces where sections of the proposed trail will involve concrete rather than dirt. However, the trail itself is relatively narrow and it is expected that once constructed, stormwater will flow similarly to existing conditions. No new storm drain components are proposed by the Project. However, during construction, the District or construction contractor would be required to obtain a Stormwater Pollution Prevention Plan to minimize erosion and potential site runoff. A copy of the SWPPP is retained on-site

during construction. All other on-site drainage will be collected and deposited in the District's storm drain system.

The Project also includes construction and operation of two pedestrian bridges along the new trail that will cross an unnamed intermittent and ephemeral stream. However, the pedestrian bridges will span across the entire creek beds to avoid impacts to the creek and to avoid impacts below the Ordinary High Water Mark (OHWM). An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 30-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. No work within the creek bed below the OHWM will occur. Should it be determined that the proposed pedestrian bridges require work within the creek bed, below the OHWM, the Project would be subject to regulatory permitting through the California Department of Fish & Wildlife (Section 1602 Streambed Alteration), the U.S. Army Corps (Section 404) and the Regional Water Quality Control Board (Section 401).As such, any impacts resulting from drainage patterns would be ***less than significant.***

Mitigation Measures: None are required.

d. In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The Project is not within a regulatory floodway or within a base floodplain (100 year) elevation. In addition, the Project does not include any housing or structures that would be subject to flooding either from a watercourse or from dam inundation. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. The project will not conflict with any water quality control plans or sustainable groundwater management plan. Therefore, there are ***no impacts.***

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒

RESPONSES

a. Physically divide an established community?

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?

No Impact. The proposed Project will take place in the community of Groveland in western Tuolumne County, and covers multiple land parcels. The community lies along State Route 120, east of State Route 49 and is within the Groveland Community Services District. Construction and operation of the Project itself would not cause any land use changes in the surrounding vicinity nor would it divide an established community. The immediate vicinity of the proposed Project site is comprised of rural undeveloped land uses and parks and public recreation facilities. The proposed Project has no characteristics that would physically divide the Groveland CSD. Access to the existing surrounding establishments will remain. ***No impacts*** would occur as a result of Project implementation.

Mitigation Measures: None are required.

XI. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

REPONSES

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?

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?

No Impact. There are no known mineral resources in the proposed Project area. Construction will take place within and around the existing streetscape and public parks and not in an area with known mineral resources. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

RESPONSES

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?

b. Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. The nearest sensitive receptors to the proposed Project would be the an Adventist Health facility and residences less than 0.25 miles south of the proposed trail. Project construction would involve temporary, short-term noise sources including site preparation and installation of the pipeline and site cleanup work is expected to last for approximately one year. Construction-related short-term, temporary noise levels would be higher than existing ambient noise

levels in the Project area, but is temporary and would not occur after construction is completed. Operational noise related to recreational activities and trails would be similar to existing conditions.

During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 2, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 2
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time. Most residents recognize this reality and expect to hear construction activities on occasion.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Construction associated with the proposed Project is earthmoving activities associated installing pipelines and installing equipment.

The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.[10] Table 3 describes the typical construction equipment vibration levels.

Table 3
Typical Construction Vibration Levels

Equipment	VdB at 25 ft
Small Bulldozer	58
Jackhammer	79

Vibration from construction activities will be temporary and not exceed the Federal Transit Authority threshold for the nearest sensitive receptors.

As such, any impacts resulting from an increase in noise levels or from groundborne noise levels is ***less than significant.***

Mitigation Measures: None are required.

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?

No Impact. The Project is not located within an airport land use plan, nor is it within two miles of a public airport or public use airport. The closest airport to the Project is Pine Mountain Lake Airport located approximately three miles northeast.

Mitigation Measures: None are required.

[10] Transit Noise and Vibration Impact Assessment. Final Report No. FTA-VA-90-1003 prepared for the U.S. Federal Transit Administration by Harris Miller Miller & Hanson Inc., May 2006. Page 7-5. http://www.rtd-fastracks.com/media/uploads/nm/14_Section_38_NoiseandVibration_Part3.pdf. Accessed February 2019.

XIV. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

RESPONSE

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)?

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There are no new homes or businesses associated with the proposed Project, nor would Project implementation displace people or housing. The proposed Project includes construction and development of recreational trails, pedestrian bridges, and other related public facilities There will be ***no impact***.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

RESPONSES

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?

Less Than Significant Impact. The proposed Project would improve recreational facilities for the Groveland community by developing a trail, pedestrian bridges, and associated public facilities such as kiosks, restrooms, and transit shelters. The proposed Project would not directly or indirectly induce

population growth and the Groveland Community Services Fire Department would continue to provide service to the site. There is ***no impact.***

Police Protection?

No Impact. The proposed Project will continue to be served by the Tuolumne County Sheriff Station. No additional police personnel or equipment is anticipated. There is ***no impact.***

Schools, Parks, Other Public Facilities?

No Impact. The proposed Project would not increase the number of residents in the District, as the Project does not include residential units. Because the demand for schools, parks, and other public facilities is driven by population, the proposed Project would not increase demand for those services. Conversely, the proposed Project will provide additional recreational facilities and is considered beneficial. As such, the proposed Project would result in ***no impacts.***

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

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

RESPONSES

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

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?

No Impact. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements such as kiosks, restrooms benches, and related improvements. The proposed Project does not include the construction of residential uses and would not directly or indirectly induce population growth. Therefore, the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities. Conversely, the proposed Project will provide additional recreational facilities and is considered beneficial. The Project would have ***no impact*** to existing parks.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/ TRAFFIC

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

RESPONSES

a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

d. Result in inadequate emergency access?

Less Than Significant Impact. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements. The proposed Project would not cause a substantial increase in traffic, reduce the existing level of service, create any additional congestion at any intersections, or be inconsistent with CEQA Guidelines Section 15064.3. The construction and operation of the trail and improvements to the park could generate a minor amount of

additional vehicle trips from people utilizing the recreational facilities. However, it is anticipated that users of the facilities would park their vehicles at the Mary Laveroni Park, where there is an existing parking lot. It is not anticipated that the Project would generate significant trips that would cause a level of service standard to be exceeded or to result in excessive vehicle miles traveled. Passive recreational facilities such as those proposed by the Project typically do not generate significant traffic on a day to day basis. In addition, the Project would not modify or impact any existing streets or roadways. Thus, there are no components of the Project that would increase hazards due to a geometric design feature. Adequate emergency access will be maintained at all times. The Project would not conflict with a program plan, ordinance, or policy addressing the circulation system and as such, impacts would be ***less than significant.***

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. 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:				
i) 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	☐	☐	☒	☐
ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

RESPONSES

a) 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:

i) 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

ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. In accordance with Assembly Bill (AB) 52, a Sacred Lands File (SLF) request was submitted to the Native American Heritage Commission (NAHC) on September 13, 2021 for a previous project for Groveland CSD which included the current project area. The NAHC responded on October 23, 2021, with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the Project area. ASM wrote to contacts provided by the NAHC for additional information pertaining to the project on October 26, 2021. Additional emails were sent on October 26 and December 1, 2021. Two responses were received: one from the Washoe Tribe of Nevada and California deferring to the Tuolumne Me-wuk Tribe on October 26, 2021, and one from the Tuolumne Me-Wuk Tribal Council stating that they have no knowledge of cultural resources, areas, or concerns within the Project area. The tribal consultation undertaken for the previous project is considered satisfactory for the current Groveland CSD Trails Improvements Project. Therefore, there is a ***less than significant impact***.

Mitigation Measures: None are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

RESPONSES

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?

Less Than Significant Impact. The proposed Project involves construction and operation of a concrete and dirt trail, two pedestrian bridges, and construction of park improvements. These developments will require a minor amount of water and wastewater services from the District and will require connection to electrical and natural gas facilities. Implementation of the Project would not require the expansion of the District's water, wastewater, or stormwater systems nor would it require expansion of natural gas or electrical infrastructure (other than the Project connecting to these services). The proposed recreational facilities would not generate significant demand for these services. Therefore, there is a ***less than significant impact.***

Mitigation Measures: The Project will require multiple mitigation measures as identified throughout this document.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. Project demands for groundwater resources in connection with the proposed Project for new restrooms at the Mary Laveroni Park would not substantially deplete groundwater supplies and/or otherwise interfere with groundwater recharge efforts, as it will require only minimal potable water to serve the restroom. All potential development will be required to adhere to all City and State mandated water conservation measures and regulations. As such, any impacts to groundwater supplies will be ***less than significant***.

Mitigation Measures: None are required.

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?

Less Than Significant Impact. The Project includes the construction of a new restroom facility at the Mary Laveroni Park. This restroom will generate waste that is typical of other urban uses in the District. This Project does not include any expansion of wastewater treatment facilities or processes that would result in the production of chemicals or substances that would adversely impact local water quality beyond existing conditions.

There are no aspects of the Project that would result in changes to waste discharge requirements, water quality standards or otherwise degrade water quality. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

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?

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Proposed Project construction and operation will generate minimal amounts of solid waste. The proposed Project will not generate waste on an on-going basis and will comply with all federal, state and local statutes and regulations related to solid waste. Any impacts will be ***less than significant.***

Mitigation Measures: None are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

RESPONSES

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

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?

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?

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?

Less Than Significant Impact. The Project area consists of cismontane woodland as well as developed and disturbed land cover (commercial and residential development). The alignment of the existing and proposed trail runs along dirt roads/paths, cismontane woodland land cover and is adjacent to commercial development and roadways. The proposed Project is located in areas that have been developed with urban uses within a forested area. There is no increased risk or on-going risk of wildfire beyond existing conditions associated with the Project.

As such, any wildfire risk to the project structures or people would be ***less than significant.***

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐
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)?	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

RESPONSES

a. Does the project have the potential to 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, 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?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant***.

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)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is ***less than significant***.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant.***

Chapter 4

MITIGATION MONITORING & REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Groveland Community Services District's Trails Improvements Project (Project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

The first column of the Table identifies the mitigation measure. The second column, entitled "Party Responsible for Implementing Mitigation," names the party responsible for carrying out the required action. The third column, "Implementation Timing," identifies the time the mitigation measure should be initiated. The fourth column, "Party Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the Lemon Cove Sanitary District to ensure that individual mitigation measures have been monitored.

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
Biology				
BIO-1: Protect northwestern pond turtle 1. To the extent practicable, construction in and adjacent to intermittent and ephemeral streams shall be scheduled to occur when these streams are dry (approximately mid-July through October) to avoid the possibility of northwestern pond turtle being present at the worksite. 2. If it is not possible to schedule construction between August and October, preconstruction surveys for northwestern pond turtle shall be conducted by a qualified biologist to determine if turtles are occupying streamside worksites. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all sections of stream within 300 feet of planned work activities, including adjacent upland areas, for turtles and nests; northwestern pond turtle nests in upland areas within several hundred feet of water in the spring, typically during the months of April and May. If a turtle or nest is found within 300 feet of the worksite, a qualified biological monitor shall remain on site during construction to ensure that no turtles or turtle nests are impacted by work	Groveland CSD / Construction Contractor	Prior to and during construction	Groveland CSD / Construction Contractor	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
activities. Any turtle found on or adjacent to the worksite shall be allowed to leave on its own.				
BIO-2: Protect western red bat. 1. To the extent practicable, construction shall be scheduled to avoid the birthing and pupping season for western red bat, which extends from May through August. 2. If it is not possible to schedule construction between September and April, preconstruction surveys for roosting bats shall be conducted by a qualified biologist to ensure that no active maternal colonies will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential colony substrates in and immediately adjacent to the impact areas for maternity roosts. If an active maternity roost is found close enough to the construction area to be disturbed by work activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the colony. If work cannot proceed without disturbing the	Groveland CSD / Construction Contractor	Prior to and during construction	Groveland CSD / Construction Contractor	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
colony, work may need to be halted or redirected to other areas until young are able to fly or the colony has otherwise failed for non-construction related reasons.				
BIO-3: Protect nesting birds. 1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. 2. If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may	Groveland CSD / Construction Contractor	Prior to and during construction	Groveland CSD / Construction Contractor	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.				
Cultural				
CUL-1: In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.	Groveland CSD / Construction Contractor	Prior to and during construction	Groveland CSD / Construction Contractor	

Chapter 5

PREPARERS

LIST OF PREPARERS

Crawford & Bowen Planning, Inc.

- Travis Crawford, AICP, Principal Environmental Planner
- Emily Bowen, LEED AP, Principal Environmental Planner

AM Consulting Engineers

- Alfonso Manrique, PE
- Brandon Cauble, Associate Engineer

ASM Affiliates

- Peter Carey

Appendices

Appendix A

Air Emission Output Tables

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Groveland Trails Improvements Project

Tuolumne County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	34.00	Acre	34.00	1,481,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	66
Climate Zone	3			**Operational Year**	2024
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project includes construction and operation of approximately 2.5 miles of recreational trail, 1/3 mile walking loop, two pedestrian bridges (65 and 30 feet long), an amphitheater, outdoor adventure course, trailhead flex court, an events plaza, kiosks, transit shelters, and associated street and landscaping improvements.

Land Use - Total distrubed area is 34 acres, which includes all Project components.
The building area sq.ft. includes all covered structures.

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2651	2.2353	1.9588	4.5400e-003	0.5143	0.0884	0.6027	0.2132	0.0819	0.2952	0.0000	408.7460	408.7460	0.0784	0.0164	415.5809
2023	0.7761	4.6175	5.7295	0.0168	0.8439	0.1106	0.9545	0.2292	0.1042	0.3334	0.0000	1,556.6316	1,556.6316	0.1025	0.1253	1,596.5344
2024	0.7349	3.6666	4.6635	0.0137	0.6865	0.0875	0.7740	0.1864	0.0823	0.2687	0.0000	1,273.7081	1,273.7081	0.0914	0.0975	1,305.0510
2025	0.1128	0.0123	0.0470	9.0000e-005	7.8300e-003	4.6000e-004	8.2900e-003	2.0800e-003	4.6000e-004	2.5400e-003	0.0000	8.5492	8.5492	3.9000e-004	2.3000e-004	8.6291
Maximum	**0.7761**	**4.6175**	**5.7295**	**0.0168**	**0.8439**	**0.1106**	**0.9545**	**0.2292**	**0.1042**	**0.3334**	**0.0000**	**1,556.6316**	**1,556.6316**	**0.1025**	**0.1253**	**1,596.5344**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2651	2.2353	1.9588	4.5400e-003	0.5143	0.0884	0.6027	0.2132	0.0819	0.2952	0.0000	408.7457	408.7457	0.0784	0.0164	415.5806
2023	0.7761	4.6175	5.7295	0.0168	0.8439	0.1106	0.9545	0.2292	0.1042	0.3334	0.0000	1,556.6312	1,556.6312	0.1025	0.1253	1,596.5341
2024	0.7349	3.6666	4.6635	0.0137	0.6865	0.0875	0.7740	0.1864	0.0823	0.2687	0.0000	1,273.7078	1,273.7078	0.0914	0.0975	1,305.0506
2025	0.1128	0.0123	0.0470	9.0000e-005	7.8300e-003	4.6000e-004	8.2900e-003	2.0800e-003	4.6000e-004	2.5400e-003	0.0000	8.5492	8.5492	3.9000e-004	2.3000e-004	8.6291
Maximum	**0.7761**	**4.6175**	**5.7295**	**0.0168**	**0.8439**	**0.1106**	**0.9545**	**0.2292**	**0.1042**	**0.3334**	**0.0000**	**1,556.6312**	**1,556.6312**	**0.1025**	**0.1253**	**1,596.5341**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-7-2022**	**10-6-2022**	1.1278	1.1278
2	**10-7-2022**	**1-6-2023**	1.4810	1.4810
3	**1-7-2023**	**4-6-2023**	1.3560	1.3560
4	**4-7-2023**	**7-6-2023**	1.3199	1.3199
5	**7-7-2023**	**10-6-2023**	1.3381	1.3381
6	**10-7-2023**	**1-6-2024**	1.3846	1.3846
7	**1-7-2024**	**4-6-2024**	1.2916	1.2916
8	**4-7-2024**	**7-6-2024**	1.2438	1.2438

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

9	**7-7-2024**	**10-6-2024**	1.2609	1.2609
10	**10-7-2024**	**1-6-2025**	0.5160	0.5160
11	**1-7-2025**	**4-6-2025**	0.0898	0.0898
		Highest	1.4810	1.4810

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1151	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1000e-004	6.1000e-004	0.0000	0.0000	6.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0349	0.0444	0.2568	3.5000e-004	0.0310	4.6000e-004	0.0314	8.3100e-003	4.3000e-004	8.7400e-003	0.0000	32.3431	32.3431	3.3600e-003	2.0800e-003	33.0470
Waste						0.0000	0.0000		0.0000	0.0000	0.5927	0.0000	0.5927	0.0350	0.0000	1.4685
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1500**	**0.0444**	**0.2571**	**3.5000e-004**	**0.0310**	**4.6000e-004**	**0.0314**	**8.3100e-003**	**4.3000e-004**	**8.7400e-003**	**0.5927**	**32.3437**	**32.9365**	**0.0384**	**2.0800e-003**	**34.5161**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1151	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1000e-004	6.1000e-004	0.0000	0.0000	6.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0349	0.0444	0.2568	3.5000e-004	0.0310	4.6000e-004	0.0314	8.3100e-003	4.3000e-004	8.7400e-003	0.0000	32.3431	32.3431	3.3600e-003	2.0800e-003	33.0470
Waste						0.0000	0.0000		0.0000	0.0000	0.5927	0.0000	0.5927	0.0350	0.0000	1.4685
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1500**	**0.0444**	**0.2571**	**3.5000e-004**	**0.0310**	**4.6000e-004**	**0.0314**	**8.3100e-003**	**4.3000e-004**	**8.7400e-003**	**0.5927**	**32.3437**	**32.9365**	**0.0384**	**2.0800e-003**	**34.5161**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/7/2022	8/17/2022	5	30	
2	Site Preparation	Site Preparation	8/18/2022	9/14/2022	5	20	
3	Grading	Grading	9/15/2022	11/16/2022	5	45	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	11/17/2022	10/16/2024	5	500	
5	Paving	Paving	10/17/2024	12/4/2024	5	35	
6	Architectural Coating	Architectural Coating	12/5/2024	1/22/2025	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,000; Non-Residential Outdoor: 10,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	622.00	243.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	124.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0396	0.3858	0.3089	5.8000e-004		0.0186	0.0186		0.0173	0.0173	0.0000	50.9853	50.9853	0.0143	0.0000	51.3434
Total	**0.0396**	**0.3858**	**0.3089**	**5.8000e-004**		**0.0186**	**0.0186**		**0.0173**	**0.0173**	**0.0000**	**50.9853**	**50.9853**	**0.0143**	**0.0000**	**51.3434**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5100e-003	1.0000e-003	9.7700e-003	2.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.9000e-004	0.0000	1.5830	1.5830	9.0000e-005	7.0000e-005	1.6055
Total	**1.5100e-003**	**1.0000e-003**	**9.7700e-003**	**2.0000e-005**	**1.7800e-003**	**1.0000e-005**	**1.7900e-003**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.5830**	**1.5830**	**9.0000e-005**	**7.0000e-005**	**1.6055**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0396	0.3858	0.3089	5.8000e-004		0.0186	0.0186		0.0173	0.0173	0.0000	50.9853	50.9853	0.0143	0.0000	51.3433
Total	**0.0396**	**0.3858**	**0.3089**	**5.8000e-004**		**0.0186**	**0.0186**		**0.0173**	**0.0173**	**0.0000**	**50.9853**	**50.9853**	**0.0143**	**0.0000**	**51.3433**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5100e-003	1.0000e-003	9.7700e-003	2.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.9000e-004	0.0000	1.5830	1.5830	9.0000e-005	7.0000e-005	1.6055
Total	**1.5100e-003**	**1.0000e-003**	**9.7700e-003**	**2.0000e-005**	**1.7800e-003**	**1.0000e-005**	**1.7900e-003**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.5830**	**1.5830**	**9.0000e-005**	**7.0000e-005**	**1.6055**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.1966**	**0.0161**	**0.2127**	**0.1010**	**0.0148**	**0.1159**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7098**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.0000e-004	7.8100e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2664	1.2664	7.0000e-005	5.0000e-005	1.2844
Total	**1.2100e-003**	**8.0000e-004**	**7.8100e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2664**	**1.2664**	**7.0000e-005**	**5.0000e-005**	**1.2844**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	**0.0317**	**0.3308**	**0.1970**	**3.8000e-004**	**0.1966**	**0.0161**	**0.2127**	**0.1010**	**0.0148**	**0.1159**	**0.0000**	**33.4394**	**33.4394**	**0.0108**	**0.0000**	**33.7097**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	8.0000e-004	7.8100e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2664	1.2664	7.0000e-005	5.0000e-005	1.2844
Total	**1.2100e-003**	**8.0000e-004**	**7.8100e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2664**	**1.2664**	**7.0000e-005**	**5.0000e-005**	**1.2844**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2071	0.0000	0.2071	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0816	0.8740	0.6534	1.4000e-003		0.0368	0.0368		0.0338	0.0338	0.0000	122.7029	122.7029	0.0397	0.0000	123.6950
Total	**0.0816**	**0.8740**	**0.6534**	**1.4000e-003**	**0.2071**	**0.0368**	**0.2439**	**0.0822**	**0.0338**	**0.1161**	**0.0000**	**122.7029**	**122.7029**	**0.0397**	**0.0000**	**123.6950**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0200e-003	1.9900e-003	0.0195	3.0000e-005	3.5500e-003	3.0000e-005	3.5800e-003	9.4000e-004	3.0000e-005	9.7000e-004	0.0000	3.1659	3.1659	1.7000e-004	1.4000e-004	3.2109
Total	**3.0200e-003**	**1.9900e-003**	**0.0195**	**3.0000e-005**	**3.5500e-003**	**3.0000e-005**	**3.5800e-003**	**9.4000e-004**	**3.0000e-005**	**9.7000e-004**	**0.0000**	**3.1659**	**3.1659**	**1.7000e-004**	**1.4000e-004**	**3.2109**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2071	0.0000	0.2071	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0816	0.8740	0.6534	1.4000e-003		0.0368	0.0368		0.0338	0.0338	0.0000	122.7027	122.7027	0.0397	0.0000	123.6948
Total	**0.0816**	**0.8740**	**0.6534**	**1.4000e-003**	**0.2071**	**0.0368**	**0.2439**	**0.0822**	**0.0338**	**0.1161**	**0.0000**	**122.7027**	**122.7027**	**0.0397**	**0.0000**	**123.6948**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0200e-003	1.9900e-003	0.0195	3.0000e-005	3.5500e-003	3.0000e-005	3.5800e-003	9.4000e-004	3.0000e-005	9.7000e-004	0.0000	3.1659	3.1659	1.7000e-004	1.4000e-004	3.2109
Total	**3.0200e-003**	**1.9900e-003**	**0.0195**	**3.0000e-005**	**3.5500e-003**	**3.0000e-005**	**3.5800e-003**	**9.4000e-004**	**3.0000e-005**	**9.7000e-004**	**0.0000**	**3.1659**	**3.1659**	**1.7000e-004**	**1.4000e-004**	**3.2109**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0273	0.2499	0.2618	4.3000e-004		0.0129	0.0129		0.0122	0.0122	0.0000	37.0760	37.0760	8.8800e-003	0.0000	37.2981
Total	**0.0273**	**0.2499**	**0.2618**	**4.3000e-004**		**0.0129**	**0.0129**		**0.0122**	**0.0122**	**0.0000**	**37.0760**	**37.0760**	**8.8800e-003**	**0.0000**	**37.2981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0125	0.3469	0.0685	9.2000e-004	0.0253	3.2400e-003	0.0286	7.3100e-003	3.1000e-003	0.0104	0.0000	88.5115	88.5115	5.3000e-004	0.0131	92.4226
Worker	0.0667	0.0441	0.4321	7.6000e-004	0.0785	6.4000e-004	0.0792	0.0209	5.9000e-004	0.0215	0.0000	70.0157	70.0157	3.8200e-003	3.0200e-003	71.0114
Total	**0.0792**	**0.3910**	**0.5006**	**1.6800e-003**	**0.1039**	**3.8800e-003**	**0.1078**	**0.0282**	**3.6900e-003**	**0.0319**	**0.0000**	**158.5272**	**158.5272**	**4.3500e-003**	**0.0161**	**163.4339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0273	0.2499	0.2618	4.3000e-004		0.0129	0.0129		0.0122	0.0122	0.0000	37.0760	37.0760	8.8800e-003	0.0000	37.2981
Total	**0.0273**	**0.2499**	**0.2618**	**4.3000e-004**		**0.0129**	**0.0129**		**0.0122**	**0.0122**	**0.0000**	**37.0760**	**37.0760**	**8.8800e-003**	**0.0000**	**37.2981**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0125	0.3469	0.0685	9.2000e-004	0.0253	3.2400e-003	0.0286	7.3100e-003	3.1000e-003	0.0104	0.0000	88.5115	88.5115	5.3000e-004	0.0131	92.4226
Worker	0.0667	0.0441	0.4321	7.6000e-004	0.0785	6.4000e-004	0.0792	0.0209	5.9000e-004	0.0215	0.0000	70.0157	70.0157	3.8200e-003	3.0200e-003	71.0114
Total	**0.0792**	**0.3910**	**0.5006**	**1.6800e-003**	**0.1039**	**3.8800e-003**	**0.1078**	**0.0282**	**3.6900e-003**	**0.0319**	**0.0000**	**158.5272**	**158.5272**	**4.3500e-003**	**0.0161**	**163.4339**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3462**	**301.3462**	**0.0717**	**0.0000**	**303.1383**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0648	2.4299	0.4513	7.3200e-003	0.2058	0.0148	0.2205	0.0594	0.0141	0.0736	0.0000	699.9404	699.9404	2.7600e-003	0.1028	730.6404
Worker	0.5068	0.3176	3.1665	5.9800e-003	0.6382	4.8300e-003	0.6430	0.1698	4.4500e-003	0.1742	0.0000	555.3451	555.3451	0.0281	0.0225	562.7558
Total	**0.5716**	**2.7475**	**3.6178**	**0.0133**	**0.8439**	**0.0196**	**0.8635**	**0.2292**	**0.0186**	**0.2478**	**0.0000**	**1,255.2854**	**1,255.2854**	**0.0308**	**0.1253**	**1,293.3961**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	**0.2045**	**1.8700**	**2.1117**	**3.5000e-003**		**0.0910**	**0.0910**		**0.0856**	**0.0856**	**0.0000**	**301.3458**	**301.3458**	**0.0717**	**0.0000**	**303.1380**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0648	2.4299	0.4513	7.3200e-003	0.2058	0.0148	0.2205	0.0594	0.0141	0.0736	0.0000	699.9404	699.9404	2.7600e-003	0.1028	730.6404
Worker	0.5068	0.3176	3.1665	5.9800e-003	0.6382	4.8300e-003	0.6430	0.1698	4.4500e-003	0.1742	0.0000	555.3451	555.3451	0.0281	0.0225	562.7558
Total	**0.5716**	**2.7475**	**3.6178**	**0.0133**	**0.8439**	**0.0196**	**0.8635**	**0.2292**	**0.0186**	**0.2478**	**0.0000**	**1,255.2854**	**1,255.2854**	**0.0308**	**0.1253**	**1,293.3961**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1530	1.3982	1.6814	2.8000e-003		0.0638	0.0638		0.0600	0.0600	0.0000	241.1231	241.1231	0.0570	0.0000	242.5485
Total	**0.1530**	**1.3982**	**1.6814**	**2.8000e-003**		**0.0638**	**0.0638**		**0.0600**	**0.0600**	**0.0000**	**241.1231**	**241.1231**	**0.0570**	**0.0000**	**242.5485**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0487	1.8591	0.3469	5.7600e-003	0.1646	0.0112	0.1759	0.0476	0.0107	0.0583	0.0000	551.4349	551.4349	2.0800e-003	0.0806	575.4945
Worker	0.3799	0.2261	2.3107	4.6400e-003	0.5105	3.6000e-003	0.5141	0.1358	3.3200e-003	0.1392	0.0000	434.0133	434.0133	0.0204	0.0166	439.4630
Total	**0.4286**	**2.0852**	**2.6576**	**0.0104**	**0.6752**	**0.0148**	**0.6900**	**0.1834**	**0.0141**	**0.1974**	**0.0000**	**985.4482**	**985.4482**	**0.0224**	**0.0971**	**1,014.9575**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1530	1.3982	1.6814	2.8000e-003		0.0638	0.0638		0.0600	0.0600	0.0000	241.1228	241.1228	0.0570	0.0000	242.5483
Total	**0.1530**	**1.3982**	**1.6814**	**2.8000e-003**		**0.0638**	**0.0638**		**0.0600**	**0.0600**	**0.0000**	**241.1228**	**241.1228**	**0.0570**	**0.0000**	**242.5483**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0487	1.8591	0.3469	5.7600e-003	0.1646	0.0112	0.1759	0.0476	0.0107	0.0583	0.0000	551.4349	551.4349	2.0800e-003	0.0806	575.4945
Worker	0.3799	0.2261	2.3107	4.6400e-003	0.5105	3.6000e-003	0.5141	0.1358	3.3200e-003	0.1392	0.0000	434.0133	434.0133	0.0204	0.0166	439.4630
Total	**0.4286**	**2.0852**	**2.6576**	**0.0104**	**0.6752**	**0.0148**	**0.6900**	**0.1834**	**0.0141**	**0.1974**	**0.0000**	**985.4482**	**985.4482**	**0.0224**	**0.0971**	**1,014.9575**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0173**	**0.1667**	**0.2560**	**4.0000e-004**		**8.2000e-003**	**8.2000e-003**		**7.5400e-003**	**7.5400e-003**	**0.0000**	**35.0464**	**35.0464**	**0.0113**	**0.0000**	**35.3298**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5400e-003	9.2000e-004	9.3800e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7612	1.7612	8.0000e-005	7.0000e-005	1.7833
Total	**1.5400e-003**	**9.2000e-004**	**9.3800e-003**	**2.0000e-005**	**2.0700e-003**	**1.0000e-005**	**2.0900e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.7612**	**1.7612**	**8.0000e-005**	**7.0000e-005**	**1.7833**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0173**	**0.1667**	**0.2560**	**4.0000e-004**		**8.2000e-003**	**8.2000e-003**		**7.5400e-003**	**7.5400e-003**	**0.0000**	**35.0464**	**35.0464**	**0.0113**	**0.0000**	**35.3298**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5400e-003	9.2000e-004	9.3800e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.7612	1.7612	8.0000e-005	7.0000e-005	1.7833
Total	**1.5400e-003**	**9.2000e-004**	**9.3800e-003**	**2.0000e-005**	**2.0700e-003**	**1.0000e-005**	**2.0900e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.7612**	**1.7612**	**8.0000e-005**	**7.0000e-005**	**1.7833**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1258					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0116	0.0172	3.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	2.4256	2.4256	1.4000e-004	0.0000	2.4290
Total	**0.1275**	**0.0116**	**0.0172**	**3.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.4000e-004**	**0.0000**	**2.4290**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.1200e-003	0.0421	8.0000e-005	9.3000e-003	7.0000e-005	9.3600e-003	2.4700e-003	6.0000e-005	2.5300e-003	0.0000	7.9036	7.9036	3.7000e-004	3.0000e-004	8.0028
Total	**6.9200e-003**	**4.1200e-003**	**0.0421**	**8.0000e-005**	**9.3000e-003**	**7.0000e-005**	**9.3600e-003**	**2.4700e-003**	**6.0000e-005**	**2.5300e-003**	**0.0000**	**7.9036**	**7.9036**	**3.7000e-004**	**3.0000e-004**	**8.0028**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1258					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0116	0.0172	3.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004	0.0000	2.4256	2.4256	1.4000e-004	0.0000	2.4290
Total	**0.1275**	**0.0116**	**0.0172**	**3.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**2.4256**	**2.4256**	**1.4000e-004**	**0.0000**	**2.4290**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	4.1200e-003	0.0421	8.0000e-005	9.3000e-003	7.0000e-005	9.3600e-003	2.4700e-003	6.0000e-005	2.5300e-003	0.0000	7.9036	7.9036	3.7000e-004	3.0000e-004	8.0028
Total	**6.9200e-003**	**4.1200e-003**	**0.0421**	**8.0000e-005**	**9.3000e-003**	**7.0000e-005**	**9.3600e-003**	**2.4700e-003**	**6.0000e-005**	**2.5300e-003**	**0.0000**	**7.9036**	**7.9036**	**3.7000e-004**	**3.0000e-004**	**8.0028**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1059					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	9.1600e-003	0.0145	2.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	2.0426	2.0426	1.1000e-004	0.0000	2.0454
Total	**0.1073**	**9.1600e-003**	**0.0145**	**2.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**2.0426**	**2.0426**	**1.1000e-004**	**0.0000**	**2.0454**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4500e-003	3.1000e-003	0.0325	7.0000e-005	7.8300e-003	5.0000e-005	7.8800e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.5066	6.5066	2.8000e-004	2.3000e-004	6.5837
Total	**5.4500e-003**	**3.1000e-003**	**0.0325**	**7.0000e-005**	**7.8300e-003**	**5.0000e-005**	**7.8800e-003**	**2.0800e-003**	**5.0000e-005**	**2.1300e-003**	**0.0000**	**6.5066**	**6.5066**	**2.8000e-004**	**2.3000e-004**	**6.5837**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1059					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	9.1600e-003	0.0145	2.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	2.0426	2.0426	1.1000e-004	0.0000	2.0454
Total	**0.1073**	**9.1600e-003**	**0.0145**	**2.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**2.0426**	**2.0426**	**1.1000e-004**	**0.0000**	**2.0454**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4500e-003	3.1000e-003	0.0325	7.0000e-005	7.8300e-003	5.0000e-005	7.8800e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.5066	6.5066	2.8000e-004	2.3000e-004	6.5837
Total	**5.4500e-003**	**3.1000e-003**	**0.0325**	**7.0000e-005**	**7.8300e-003**	**5.0000e-005**	**7.8800e-003**	**2.0800e-003**	**5.0000e-005**	**2.1300e-003**	**0.0000**	**6.5066**	**6.5066**	**2.8000e-004**	**2.3000e-004**	**6.5837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0349	0.0444	0.2568	3.5000e-004	0.0310	4.6000e-004	0.0314	8.3100e-003	4.3000e-004	8.7400e-003	0.0000	32.3431	32.3431	3.3600e-003	2.0800e-003	33.0470
Unmitigated	0.0349	0.0444	0.2568	3.5000e-004	0.0310	4.6000e-004	0.0314	8.3100e-003	4.3000e-004	8.7400e-003	0.0000	32.3431	32.3431	3.3600e-003	2.0800e-003	33.0470

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	26.52	66.64	74.46	83,473	83,473
Total	26.52	66.64	74.46	83,473	83,473

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.409773	0.074310	0.207884	0.166228	0.063246	0.011231	0.007472	0.003645	0.001136	0.000418	0.044154	0.002041	0.008462

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1151	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1000e-004	6.1000e-004	0.0000	0.0000	6.5000e-004
Unmitigated	0.1151	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1000e-004	6.1000e-004	0.0000	0.0000	6.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1000e-004	6.1000e-004	0.0000	0.0000	6.5000e-004
Total	**0.1151**	**0.0000**	**3.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**6.1000e-004**	**6.1000e-004**	**0.0000**	**0.0000**	**6.5000e-004**

Groveland Trails Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.1000e-004	6.1000e-004	0.0000	0.0000	6.5000e-004
Total	**0.1151**	**0.0000**	**3.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**6.1000e-004**	**6.1000e-004**	**0.0000**	**0.0000**	**6.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 40.5104	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 40.5104	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.5927	0.0350	0.0000	1.4685
Unmitigated	0.5927	0.0350	0.0000	1.4685

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	2.92	0.5927	0.0350	0.0000	1.4685
Total		**0.5927**	**0.0350**	**0.0000**	**1.4685**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	2.92	0.5927	0.0350	0.0000	1.4685
Total		**0.5927**	**0.0350**	**0.0000**	**1.4685**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Report

BIOLOGICAL ASSESSMENT

Groveland Trails Improvements Project

PREPARED FOR:

Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

PREPARED BY:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

June 2022

Table of Contents

Introduction

The purpose of this Biological Assessment is to evaluate whether the proposed Groveland Trails Improvements Project (Project) will affect state-protected biological resources. Such resources include species of plants or animals listed or proposed for listing under the California Endangered Species Act (CESA) as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, and various other sections of the California Fish and Game Code. This Assessment has also been prepared within the context of the California Environmental Quality Act (CEQA).

Project Location

The proposed Project will take place in the community of Groveland in western Tuolumne County. The community lies along State Route 120, east of State Route 49 and is within the Groveland Community Services District (CSD or District). Yosemite National Park lies approximately 23 miles southeast of the Project site. Project elevation ranges from approximately 2800 feet to approximately 2900 feet above mean sea level. The proposed Project is located in Township 1S, Range 16E, Sections 20, 21, 23, 27, 29 and 30, MDB&M and proposed improvements are shown in Figures 1 through 5. The locations of each Project component are described in more detail in the Project Description below.

Project Description

The proposed Project consists of the following:

- Construction and operation of approximately 2.5 miles of 12-foot wide concrete paths and dirt trails for pedestrian recreational use. The trail will begin at an existing baseball field located approximately 1400 feet north of the Groveland CSD Offices (Figure 1). The trail will continue south and southeast where it will intersect with another new trail alignment (Figure 2). From there, the trail goes south and west past the Mary Laveroni Park (where the trail will intersect with the Park and will also continue westward). The trail continues west where it will meet the Jefferson Mine Trail Loop (Figure 3 and Figure 4). Light posts will be installed along the trail every 150 feet.
- Construction and operation of two pedestrian bridges along the trail (Figure 2). The pedestrian bridges will span across the entire creek bed to avoid impacts to the creek. An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be

approximately 30-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. This pedestrian bridge will provide access to/from the trail and Mary Laveroni Park.

- The trail will also include the construction of:
    - Kiosks
    - Benches
    - Trash Receptacles
    - Wayfinding Signage
    - Lights
    - An approximately 40 linear feet retaining wall adjacent to the 65 linear feet bridge on the east side of the creek
    - An 18" drainage culvert adjacent to the retaining wall
    - 3,400 linear feet of chain link fence throughout the entire path
    - Safety Rails on the inner side of the trail along the creek

- Improvements to Mary Laveroni Park (Figure 5):
    - 1/3 mile Walking Loop (ADA compliant)
    - Outdoor Adventure Play and Team Building Course
    - Amphitheater
    - Trailhead Flex Court
    - Creekside Nature Trail and Demonstration Gardens
    - Picnic and Events Plaza
    - New restrooms
    - New Sidewalks
    - New Benches
    - New Trash Receptacles
    - Planters along Main Street
    - New Transit Shelter with benches and trash receptacle

- Replacement of Picnic Benches
- Property cleanup and associated improvements

Figure 1
Trail Segment

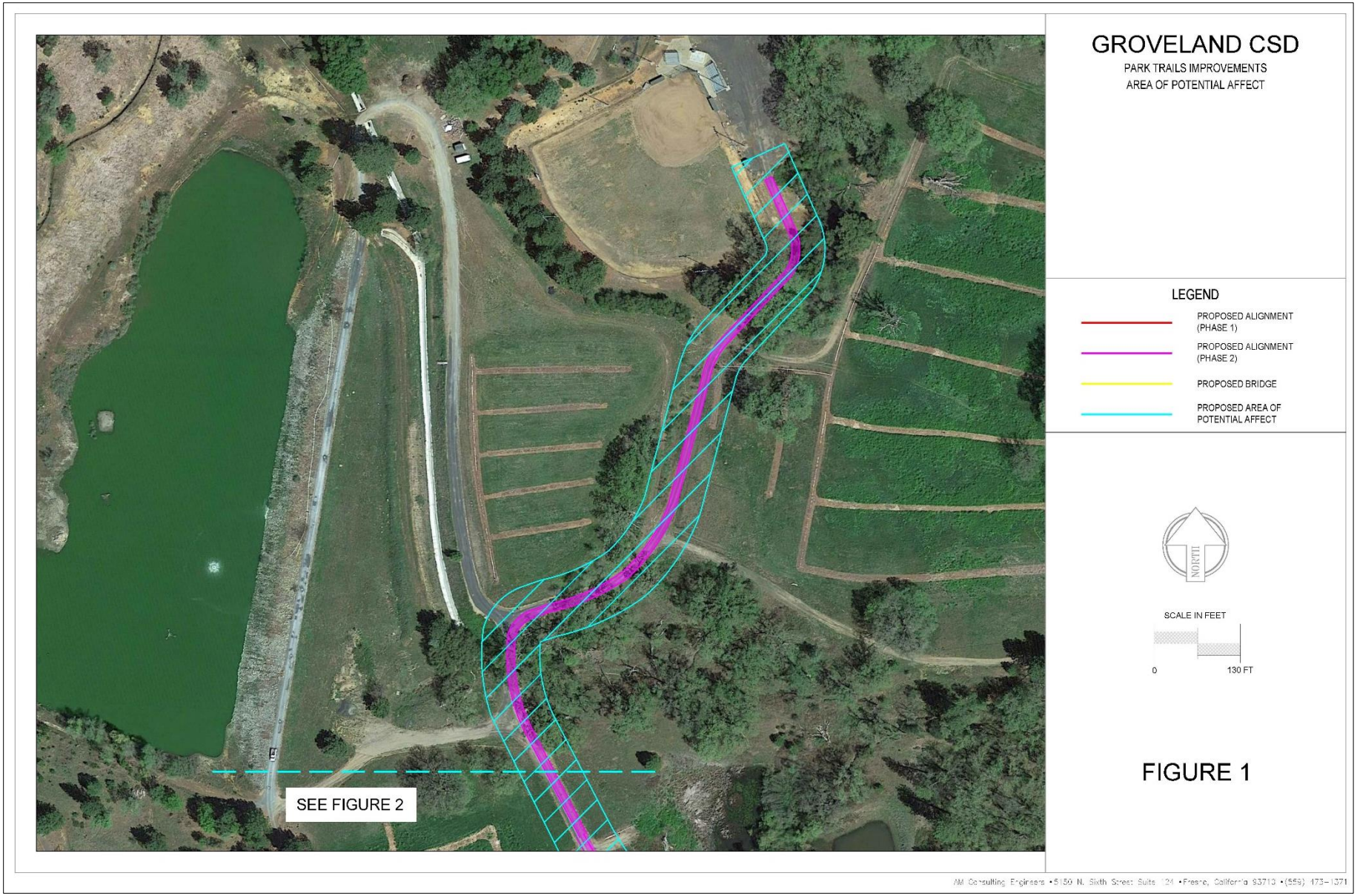


Figure 2
Trail Segment

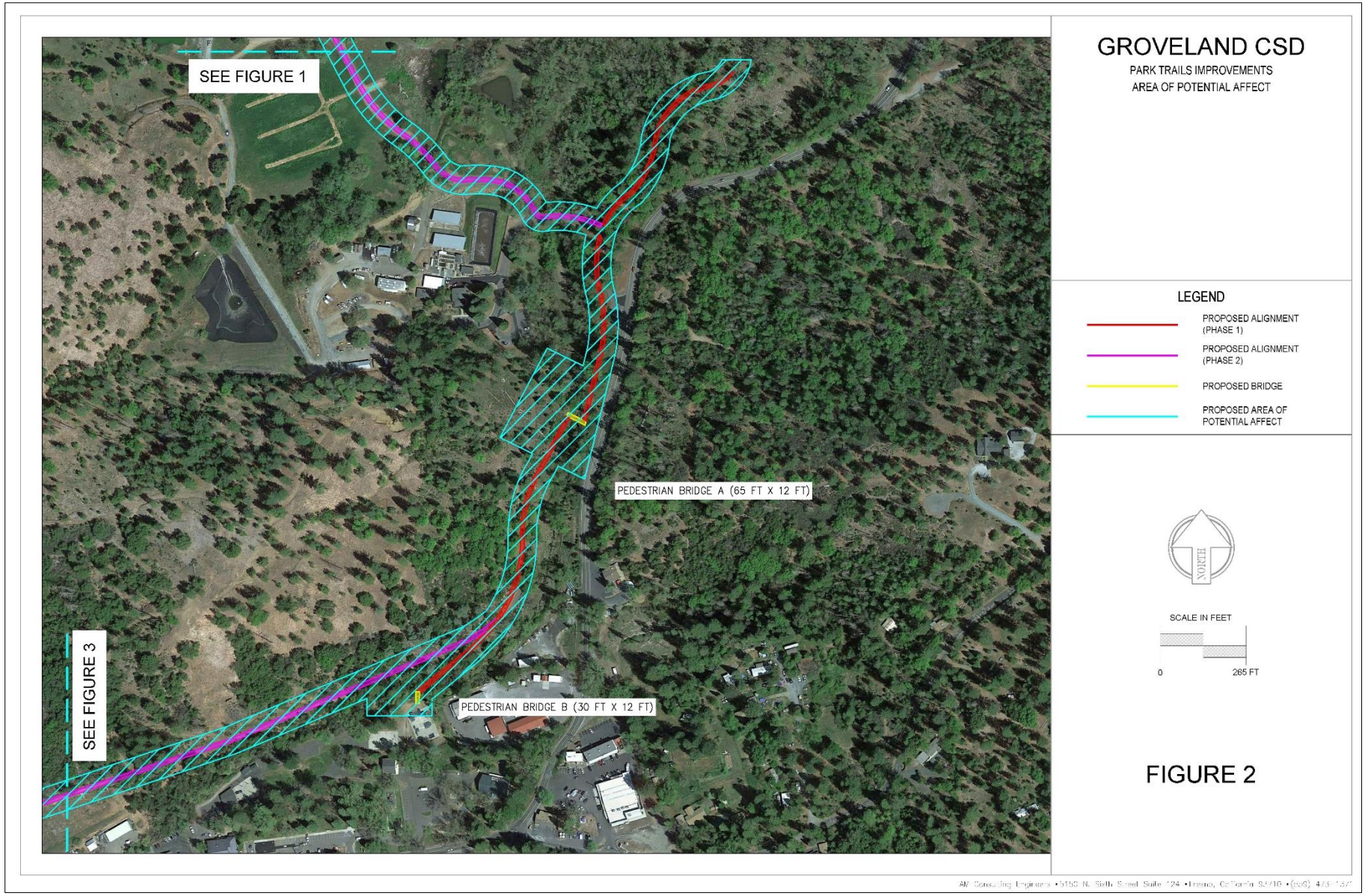


Figure 3
Trail Segment

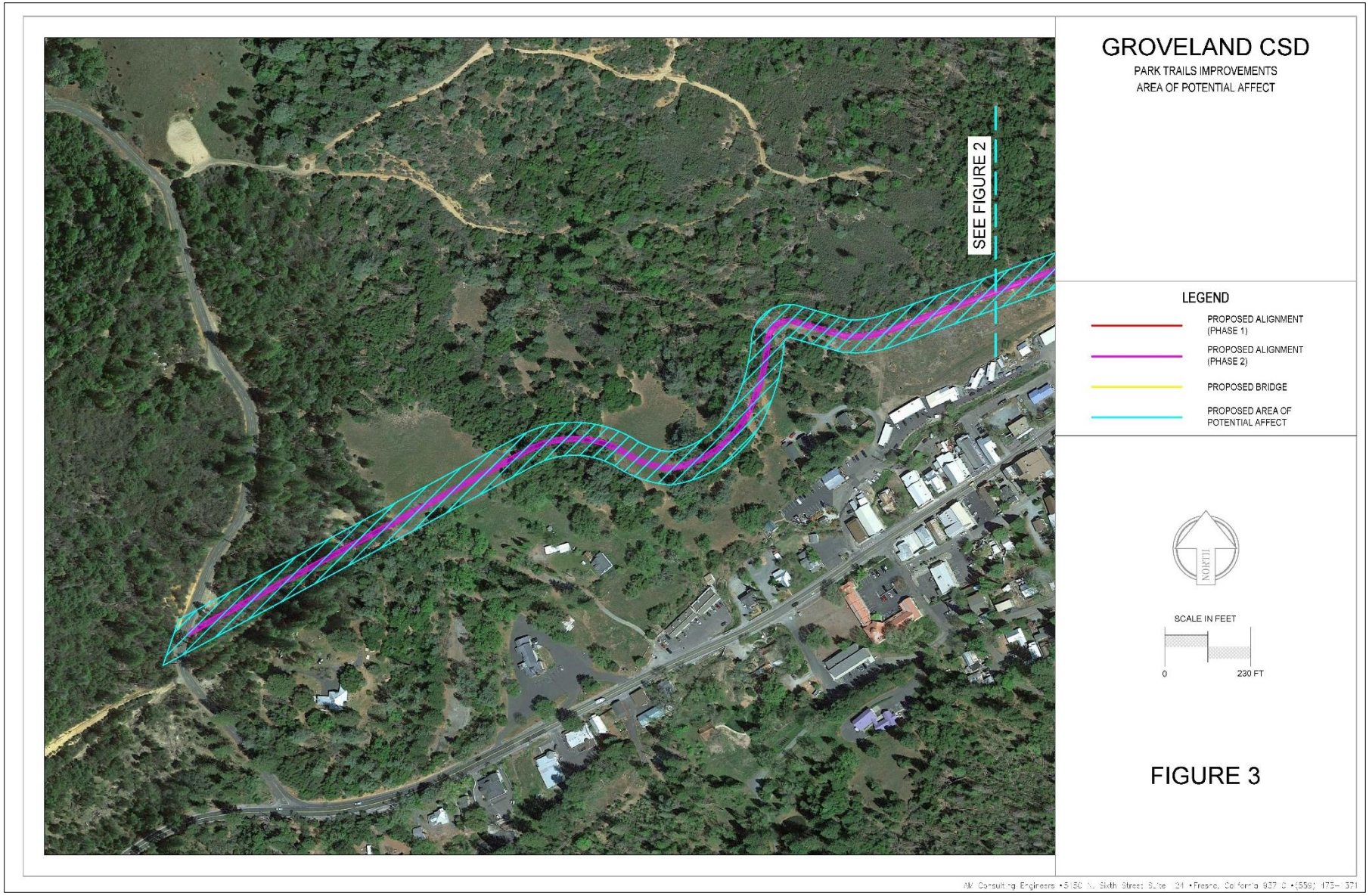


Figure 4
Trail Segment (Jefferson Mine Trail Loop)

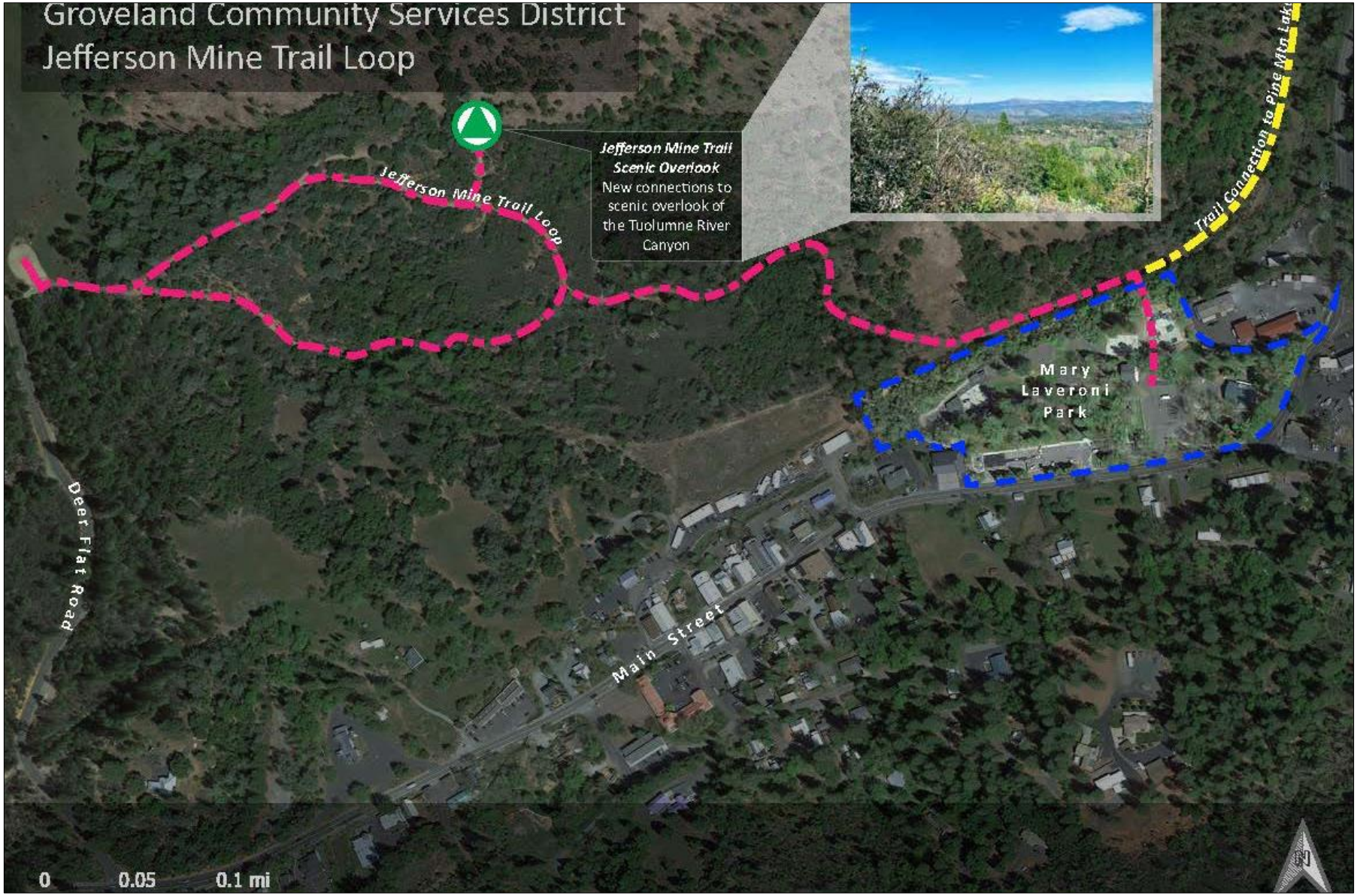
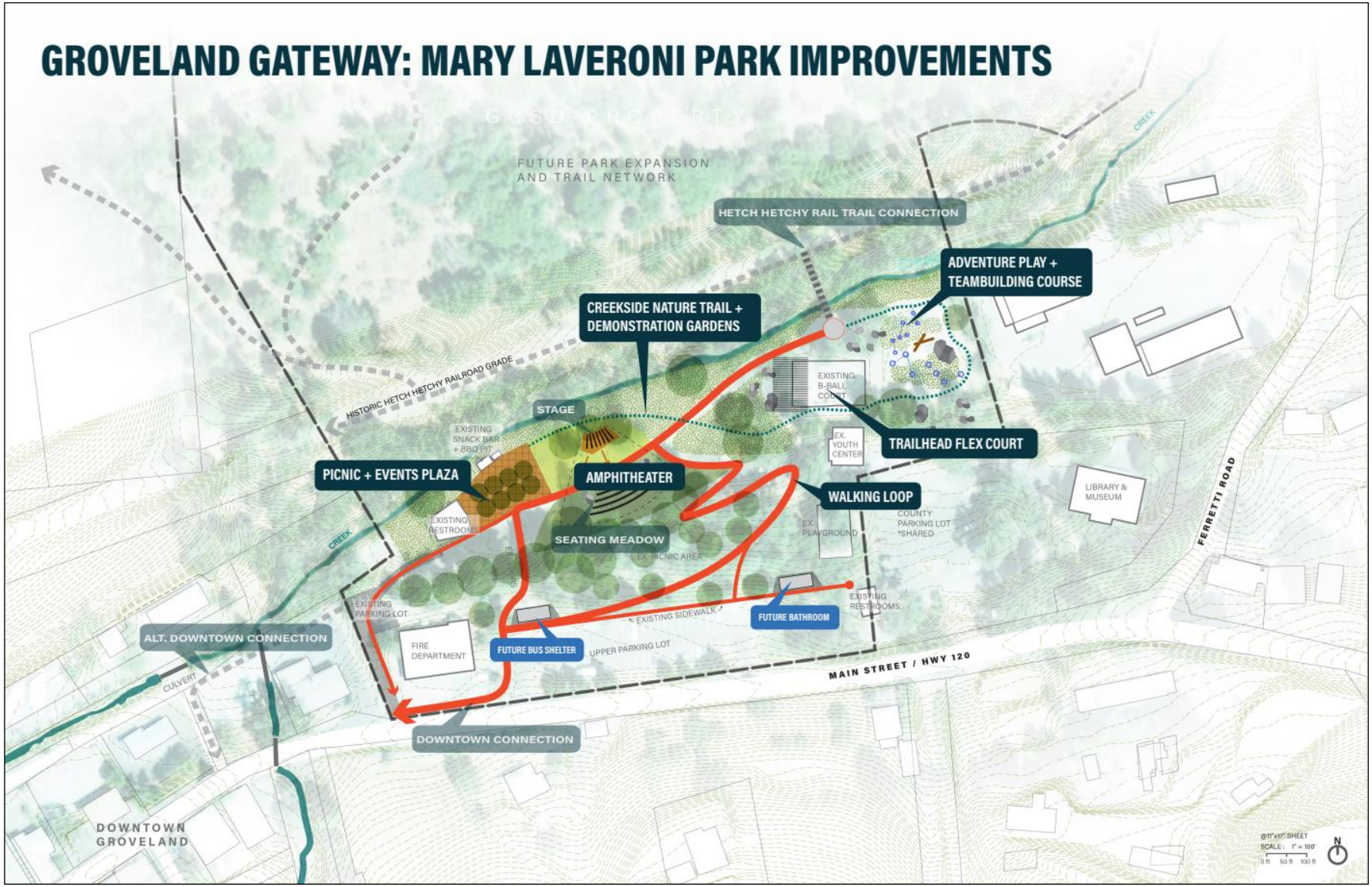


Figure 5
Mary Laveroni Park Improvements



Biological Evaluation

Environmental Setting

The Project area consists of cismontane woodland as well as developed and disturbed land cover (commercial and residential development). The alignment of the existing and proposed trail runs along dirt roads/paths, cismontane woodland land cover and is adjacent to commercial development and roadways. Mary Laveroni Park is a 2.3-acre community park that consists of parking areas (asphalt/paving), picnic areas, restrooms, the Groveland Youth Center, and other related structures and improvements. An unnamed intermittent and ephemeral stream occurs within the Project area (See Figures 1 – 5).

Desktop Review

As a framework for the evaluation, Crawford & Bowen Planning, Inc. (Crawford & Bowen) searched the California Natural Diversity Data Base (CNDDB, CDFW 2022) and the California Native Plant Society's Inventory of Rare and Endangered Plants for records of special-status plant and animal species in the Project area. Regional lists of special-status species were compiled using database searches confined to the Groveland 7.5-minute United States Geological Survey (USGS) topographic quad, which encompasses the Project site, and the eight surrounding quads (Buckhorn Peak, Coulterville, Duckwall Mountain, Jawbone Ridge, Moccasin, Penon Blanco Peak, Standard, and Tuolumne). Local lists of special status species were compiled using CNDDB records (See Attachment A for the quadrant map and Attachment B for the species list). Species for which the Project site does not provide habitat were eliminated from further consideration. Crawford & Bowen also reviewed aerial imagery from Google Earth and other sources, USGS topographic maps, and relevant literature.

In addition, the Groveland CSD enlisted Colibri Ecological Consulting, Inc. to conduct several biological surveys for projects in the proposed Trails Project area within the last several years. These were conducted as part of the environmental review processes for the Groveland CSD's sewer and water infrastructure improvements projects as follows:

- "Downtown Groveland and Big Oak Flat Sewer Collection System Improvements Project (State Clearinghouse #2019059053).
- Groveland Community Services District Water Distribution System Improvements (State Clearinghouse #2018102031).

The biological surveys conducted for these projects were in the general vicinity of the proposed Project. The species listed below are the species that were identified in the adjacent surveys and it is assumed that similar biological resources existing within the proposed Project areas. However, pre-construction surveys will determine any sensitive or protected habitat as identified below.

Effects Determinations

Special-Status Species

The northwestern pond turtle and western red bat were identified in the desktop review as having potential to occur on or near the Project site due to the presence of habitat in the Project area:

- Northwestern pond turtle uses aquatic habitats such as creeks, streams, or irrigation ditches for movements and foraging and adjacent upland areas for egg laying. The Project site is adjacent to and crosses a drainage creek that could support this species. Therefore, this assessment concludes the Project may affect but is not likely to adversely affect northwestern pond turtle.
- Western red bat uses trees, tree cavities, and peeling bark for roosting. Because several riparian trees that qualify as habitat may be removed to facilitate trail installation activities, this assessment concludes the Project may affect but is not likely to adversely affect this species.

Migratory Birds

This assessment concludes the Project may affect but is not likely to adversely affect nesting migratory birds.

Regulated Habitats

These habitats consist of intermittent and ephemeral streams under the regulatory jurisdiction of the USACE, the RWQCB, and the CDFW. The Project includes construction and operation of two pedestrian bridges along the new trail that will cross an unnamed intermittent and ephemeral stream. However, the pedestrian bridges will span across the entire creek beds to avoid impacts to the creek and to avoid impacts below the Ordinary High Water Mark (OHWM). An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 30-

feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. No work within the creek bed below the OHWM will occur. Should it be determined that the proposed pedestrian bridges require work within the creek bed, below the OHWM, the Project would be subject to regulatory permitting through the California Department of Fish & Wildlife (Section 1602 Streambed Alteration), the U.S. Army Corps (Section 404) and the Regional Water Quality Control Board (Section 401).

Direct and Indirect Impacts

The Project could have direct adverse effect on northwestern pond turtle, a native reptile designated by the CDFW as a Species of Special Concern. Northwestern pond turtle uses a variety of aquatic habitats including streams, creeks, ponds, lakes, and canals for shelter, foraging, and basking and lays its eggs in upland areas adjacent to these aquatic habitats. Because the Project will involve excavation and staging adjacent to multiple sections of an intermittent and ephemeral stream that could support this species at some time during the year, incidental loss of animals or eggs could occur. Therefore, this assessment recommends that Mitigation Measure BIO-1 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

The Project could also have a substantial, direct adverse effect on western red bat, a native bat species designated by the CDFW as a Species of Special Concern. Western red bat uses trees for roosting and pupping habitat. This species often uses trees on the edges of streams, open fields, and urban areas, approximately 2-40 feet above ground level (Zeiner et al. 1988-1990). Because the Project may require that riparian trees be removed at work locations, incidental loss of animals or young from these trees could occur. Therefore, this assessment recommends that Mitigation Measure BIO-2 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

Mitigation Measures:

BIO-1: Protect northwestern pond turtle.

1. To the extent practicable, construction in and adjacent to intermittent and ephemeral streams shall be scheduled to occur when these streams are dry (approximately mid-July through October) to avoid the possibility of northwestern pond turtle being present at the worksite.

2. If it is not possible to schedule construction between August and October, preconstruction surveys for northwestern pond turtle shall be conducted by a

qualified biologist to determine if turtles are occupying streamside worksites. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all sections of stream within 300 feet of planned work activities, including adjacent upland areas, for turtles and nests; northwestern pond turtle nests in upland areas within several hundred feet of water in the spring, typically during the months of April and May. If a turtle or nest is found within 300 feet of the worksite, a qualified biological monitor shall remain on site during construction to ensure that no turtles or turtle nests are impacted by work activities. Any turtle found on or adjacent to the worksite shall be allowed to leave on its own.

BIO-2: Protect western red bat.

1. To the extent practicable, construction shall be scheduled to avoid the birthing and pupping season for western red bat, which extends from May through August.
2. If it is not possible to schedule construction between September and April, preconstruction surveys for roosting bats shall be conducted by a qualified biologist to ensure that no active maternal colonies will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential colony substrates in and immediately adjacent to the impact areas for maternity roosts. If an active maternity roost is found close enough to the construction area to be disturbed by work activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the colony. If work cannot proceed without disturbing the colony, work may need to be halted or redirected to other areas until young are able to fly or the colony has otherwise failed for non-construction related reasons.

a. <u>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?</u>

Less Than Significant Impact. The proposed Project has been designed to avoid any wetland areas. The Project includes construction and operation of two pedestrian bridges along the new trail that will cross an intermittent and ephemeral stream. However, the pedestrian bridges will span

across the entire creek beds to avoid impacts to the creek and to avoid impacts below the Ordinary High Water Mark (OHWM). An approximately 65-foot long bridge will be installed approximately 1,100 feet north of the Groveland Yosemite Gateway Museum. The second pedestrian bridge will be approximately 35-feet long and will be installed approximately 300 feet northwest of the Groveland Yosemite Gateway Museum. No work within the creek bed below the OHWM will occur.

Mitigation Measures: None are required.

b. 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?

Less Than Significant with Mitigation. No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the Project area. The streams in the Project area do not contain the perennial or prolonged flows necessary to support fish. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the Project area.

The Project has the potential to impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. Construction activities such as excavation, trenching, water main or water valve installation, and mobilizing or demobilizing construction equipment that disturb a nesting bird on the site or immediately adjacent to the construction zone could constitute a significant impact.

This assessment recommends that Mitigation Measure BIO-3 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

BIO-3: Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

2. If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

c. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

d. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no local policies or ordinances that the Project will conflict with. Additionally, there are no adopted local, regional, or state habitat conservation plans adopted for the area. As such, there is ***no impact.***

Mitigation Measures: None are required.

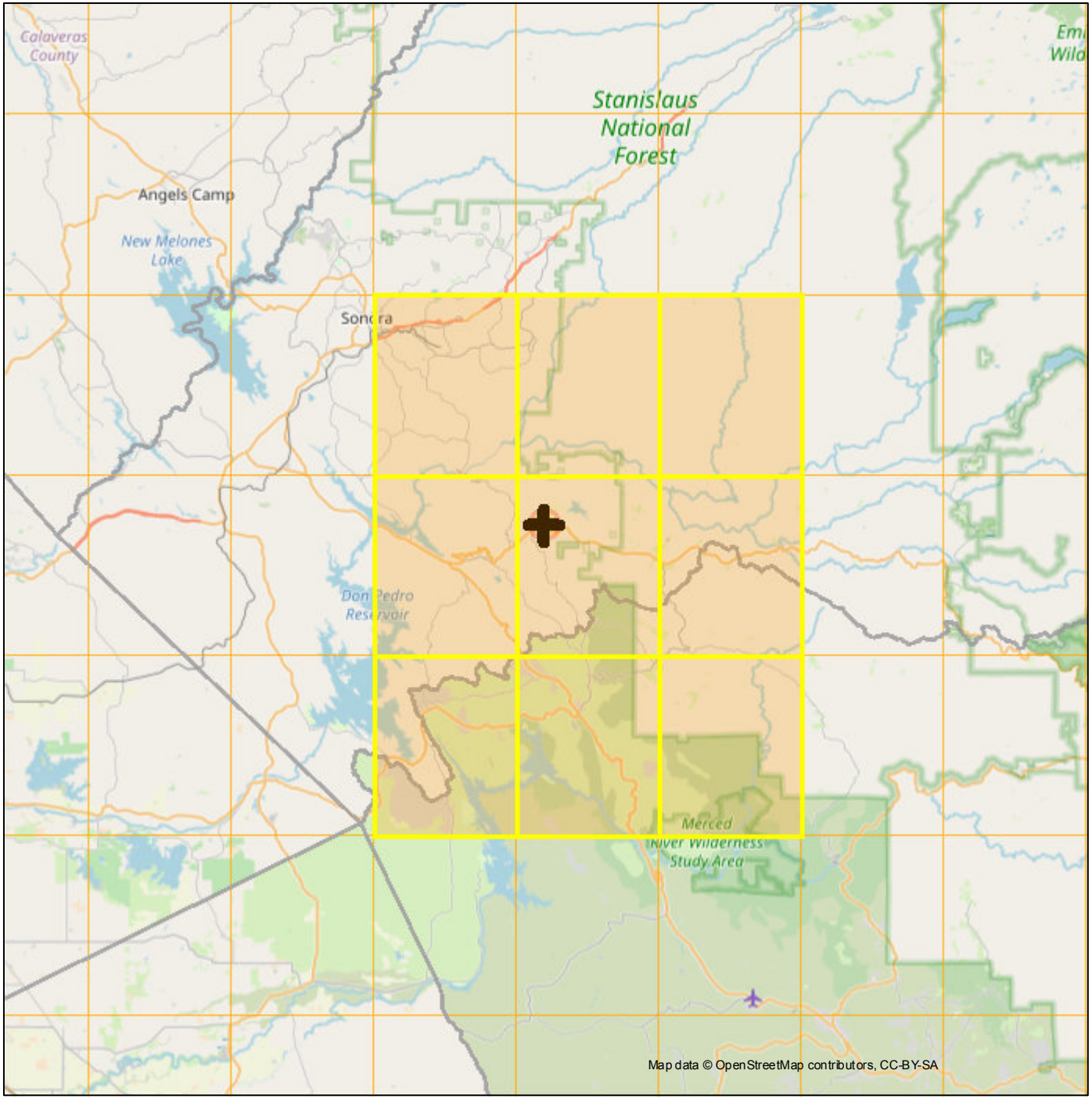
Attachments

Attachment A – Groveland CNDDB Quadrant Map

Attachment B – Groveland CNDDB Species List

Attachment A

CNDDB Search - Groveland Trails Project



N

1:577,791

0 5 10 20 mi

0 5 10 20 km

June 6, 2022

Author: C&B Planning

Printed from http://bios.dfg.ca.gov

Attachment B - Groveland CNDDB Search Results

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Stat	CA_Rare_P	Quad_Code	Quad_Name	Data_Status	Taxonomic_Sort
Animals - Amphibians	Batrachoseps diabolicus	Hell Hollow slender salamander	AAAAD02130	None	None	-	-	3712082	TUOLUMNE	Unprocessed	Animals - Amphibians - Plethodontidae - Batrachoseps diabolicus
Animals - Amphibians	Batrachoseps diabolicus	Hell Hollow slender salamander	AAAAD02130	None	None	-	-	3712073	MOCCASIN	Unprocessed	Animals - Amphibians - Plethodontidae - Batrachoseps diabolicus
Animals - Amphibians	Hydromantes brunus	limestone salamander	AAAAD09010	None	Threatened	FP	-	3712061	BUCKHORN PEAK	Mapped and Unpr	Animals - Amphibians - Plethodontidae - Hydromantes brunus
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712061	BUCKHORN PEAK	Mapped and Unpr	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712062	COULTERVILLE	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712073	MOCCASIN	Mapped and Unpr	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712081	DUCKWALL MTN.	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712082	TUOLUMNE	Mapped and Unpr	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712083	STANDARD	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712072	GROVELAND	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712071	JAWBONE RIDGE	Mapped and Unpr	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Endangered	SSC	-	3712063	PENON BLANCO PEAK	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rana draytonii	California red-legged frog	AAABH01022	Threatened	None	SSC	-	3712063	PENON BLANCO PEAK	Unprocessed	Animals - Amphibians - Ranidae - Rana draytonii
Animals - Arachnids	Banksula tuolumne	Tuolumne cave harvestman	ILARA14090	None	None	-	-	3712071	JAWBONE RIDGE	Mapped	Animals - Arachnids - Phalangodidae - Banksula tuolumne
Animals - Arachnids	Banksula tuolumne	Tuolumne cave harvestman	ILARA14090	None	None	-	-	3712072	GROVELAND	Mapped and Unpr	Animals - Arachnids - Phalangodidae - Banksula tuolumne
Animals - Arachnids	Banksula tuolumne	Tuolumne cave harvestman	ILARA14090	None	None	-	-	3712082	TUOLUMNE	Mapped and Unpr	Animals - Arachnids - Phalangodidae - Banksula tuolumne
Animals - Arachnids	Banksula tuolumne	Tuolumne cave harvestman	ILARA14090	None	None	-	-	3712081	DUCKWALL MTN.	Mapped	Animals - Arachnids - Phalangodidae - Banksula tuolumne
Animals - Birds	Accipiter cooperii	Cooper's hawk	ABNKC12040	None	None	WL	-	3712073	MOCCASIN	Unprocessed	Animals - Birds - Accipitridae - Accipiter cooperii
Animals - Birds	Accipiter gentilis	northern goshawk	ABNKC12060	None	None	SSC	-	3712081	DUCKWALL MTN.	Unprocessed	Animals - Birds - Accipitridae - Accipiter gentilis
Animals - Birds	Aquila chrysaetos	golden eagle	ABNKC22010	None	None	FP ; WL	-	3712081	DUCKWALL MTN.	Unprocessed	Animals - Birds - Accipitridae - Aquila chrysaetos
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3712063	PENON BLANCO PEAK	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3712072	GROVELAND	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3712063	PENON BLANCO PEAK	Mapped and Unpr	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Haliaeetus leucocephalus	bald eagle	ABNKC10010	Delisted	Endangered	FP	-	3712062	COULTERVILLE	Unprocessed	Animals - Birds - Accipitridae - Haliaeetus leucocephalus
Animals - Birds	Falco mexicanus	prairie falcon	ABNKD06090	None	None	WL	-	3712062	COULTERVILLE	Mapped and Unpr	Animals - Birds - Falconidae - Falco mexicanus
Animals - Birds	Icteria virens	yellow-breasted chat	ABPBX24010	None	None	SSC	-	3712063	PENON BLANCO PEAK	Unprocessed	Animals - Birds - Icteriidae - Icteria virens
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3712063	PENON BLANCO PEAK	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3712062	COULTERVILLE	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3712083	STANDARD	Mapped	Animals - Birds - Strigidae - Athene cunicularia
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3712081	DUCKWALL MTN.	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3712072	GROVELAND	Mapped and Unpr	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3712071	JAWBONE RIDGE	Mapped and Unpr	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3712062	COULTERVILLE	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix nebulosa	great gray owl	ABNSB12040	None	Endangered	-	-	3712061	BUCKHORN PEAK	Unprocessed	Animals - Birds - Strigidae - Strix nebulosa
Animals - Birds	Strix occidentalis occidentalis	California Spotted Owl	ABNSB12013	None	None	SSC	-	3712061	BUCKHORN PEAK	Mapped	Animals - Birds - Strigidae - Strix occidentalis occidentalis
Animals - Birds	Strix occidentalis occidentalis	California Spotted Owl	ABNSB12013	None	None	SSC	-	3712062	COULTERVILLE	Mapped	Animals - Birds - Strigidae - Strix occidentalis occidentalis
Animals - Birds	Strix occidentalis occidentalis	California Spotted Owl	ABNSB12013	None	None	SSC	-	3712071	JAWBONE RIDGE	Mapped	Animals - Birds - Strigidae - Strix occidentalis occidentalis
Animals - Birds	Strix occidentalis occidentalis	California Spotted Owl	ABNSB12013	None	None	SSC	-	3712072	GROVELAND	Mapped	Animals - Birds - Strigidae - Strix occidentalis occidentalis
Animals - Birds	Strix occidentalis occidentalis	California Spotted Owl	ABNSB12013	None	None	SSC	-	3712081	DUCKWALL MTN.	Mapped	Animals - Birds - Strigidae - Strix occidentalis occidentalis
Animals - Birds	Strix occidentalis occidentalis	California Spotted Owl	ABNSB12013	None	None	SSC	-	3712082	TUOLUMNE	Mapped	Animals - Birds - Strigidae - Strix occidentalis occidentalis
Animals - Birds	Vireo bellii pusillus	least Bell's vireo	ABPBW01114	Endangered	Endangered	-	-	3712063	PENON BLANCO PEAK	Mapped	Animals - Birds - Vireonidae - Vireo bellii pusillus
Animals - Crustaceans	Stygobromus harai	Hara's Cave amphipod	ICMAL05470	None	None	-	-	3712072	GROVELAND	Mapped	Animals - Crustaceans - Crangonyctidae - Stygobromus harai
Animals - Crustaceans	Stygobromus harai	Hara's Cave amphipod	ICMAL05470	None	None	-	-	3712073	MOCCASIN	Mapped	Animals - Crustaceans - Crangonyctidae - Stygobromus harai
Animals - Crustaceans	Stygobromus wengerorum	Wengerors' Cave amphipod	ICMAL05620	None	None	-	-	3712061	BUCKHORN PEAK	Mapped	Animals - Crustaceans - Crangonyctidae - Stygobromus wengerorum
Animals - Fish	Hesperoleucus symmetricus syn	central California roach	AFCJB19021	None	None	SSC	-	3712063	PENON BLANCO PEAK	Mapped	Animals - Fish - Cyprinidae - Hesperoleucus symmetricus symmetricus
Animals - Fish	Hesperoleucus symmetricus syn	central California roach	AFCJB19021	None	None	SSC	-	3712083	STANDARD	Mapped	Animals - Fish - Cyprinidae - Hesperoleucus symmetricus symmetricus
Animals - Fish	Hesperoleucus symmetricus syn	central California roach	AFCJB19021	None	None	SSC	-	3712073	MOCCASIN	Mapped and Unpr	Animals - Fish - Cyprinidae - Hesperoleucus symmetricus symmetricus
Animals - Fish	Lavinia exilicauda exilicauda	Sacramento hitch	AFCJB19012	None	None	SSC	-	3712063	PENON BLANCO PEAK	Unprocessed	Animals - Fish - Cyprinidae - Lavinia exilicauda exilicauda
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	None	-	-	3712071	JAWBONE RIDGE	Mapped	Animals - Insects - Apidae - Bombus crotchii
Animals - Insects	Desmocerus californicus dimorp	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3712082	TUOLUMNE	Mapped	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus
Animals - Insects	Desmocerus californicus dimorp	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3712083	STANDARD	Mapped	Animals - Insects - Cerambycidae - Desmocerus californicus dimorphus
Animals - Mammals	Dipodomys heermanni heermar	Heermann's kangaroo rat	AMAFD03066	None	None	-	-	3712071	JAWBONE RIDGE	Unprocessed	Animals - Mammals - Heteromyidae - Dipodomys heermanni heermanni
Animals - Mammals	Dipodomys heermanni heermar	Heermann's kangaroo rat	AMAFD03066	None	None	-	-	3712062	COULTERVILLE	Unprocessed	Animals - Mammals - Heteromyidae - Dipodomys heermanni heermanni
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3712061	BUCKHORN PEAK	Unprocessed	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3712073	MOCCASIN	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3712083	STANDARD	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3712082	TUOLUMNE	Mapped	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712081	DUCKWALL MTN.	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712083	STANDARD	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712073	MOCCASIN	Mapped	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712071	JAWBONE RIDGE	Mapped and Unpr	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3712061	BUCKHORN PEAK	Unprocessed	Animals - Mammals - Vespertilionidae - Antrozous pallidus
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712061	BUCKHORN PEAK	Mapped and Unpr	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712082	TUOLUMNE	Mapped and Unpr	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Corynorhinus townsendii	Townsend's big-eared bat	AMACC08010	None	None	SSC	-	3712081	DUCKWALL MTN.	Mapped	Animals - Mammals - Vespertilionidae - Corynorhinus townsendii
Animals - Mammals	Euderma maculatum	spotted bat	AMACC07010	None	None	SSC	-	3712083	STANDARD	Mapped	Animals - Mammals - Vespertilionidae - Euderma maculatum
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3712081	DUCKWALL MTN.	Unprocessed	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasionycteris noctivagans	silver-haired bat	AMACC02010	None	None	-	-	3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Lasionycteris noctivagans
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3712072	GROVELAND	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-	3712073	MOCCASIN	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii

Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-		3712061	BUCKHORN PEAK	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus blossevillii	western red bat	AMACC05060	None	None	SSC	-		3712062	COULTERVILLE	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus blossevillii
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712062	COULTERVILLE	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712061	BUCKHORN PEAK	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712073	MOCCASIN	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712082	TUOLUMNE	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712083	STANDARD	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712072	GROVELAND	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05030	None	None	-	-		3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Lasiurus cinereus
Animals - Mammals	Myotis ciliolabrum	western small-footed myotis	AMACC01140	None	None	-	-		3712081	DUCKWALL MTN.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis ciliolabrum
Animals - Mammals	Myotis evotis	long-eared myotis	AMACC01070	None	None	-	-		3712081	DUCKWALL MTN.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis evotis
Animals - Mammals	Myotis evotis	long-eared myotis	AMACC01070	None	None	-	-		3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Myotis evotis
Animals - Mammals	Myotis thysanodes	fringed myotis	AMACC01090	None	None	-	-		3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Myotis thysanodes
Animals - Mammals	Myotis thysanodes	fringed myotis	AMACC01090	None	None	-	-		3712081	DUCKWALL MTN.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis thysanodes
Animals - Mammals	Myotis volans	long-legged myotis	AMACC01110	None	None	-	-		3712081	DUCKWALL MTN.	Unprocessed	Animals - Mammals - Vespertilionidae - Myotis volans
Animals - Mammals	Myotis volans	long-legged myotis	AMACC01110	None	None	-	-		3712073	MOCCASIN	Mapped	Animals - Mammals - Vespertilionidae - Myotis volans
Animals - Mammals	Myotis volans	long-legged myotis	AMACC01110	None	None	-	-		3712071	JAWBONE RIDGE	Mapped	Animals - Mammals - Vespertilionidae - Myotis volans
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-		3712071	JAWBONE RIDGE	Mapped and Unpr	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mammals	Myotis yumanensis	Yuma myotis	AMACC01020	None	None	-	-		3712073	MOCCASIN	Mapped	Animals - Mammals - Vespertilionidae - Myotis yumanensis
Animals - Mollusks	Monadenia circumcarinata	keeled sideband	IMGASC7020	None	None	-	-		3712083	STANDARD	Mapped and Unpr	Animals - Mollusks - Bradybaenidae - Monadenia circumcarinata
Animals - Mollusks	Monadenia circumcarinata	keeled sideband	IMGASC7020	None	None	-	-		3712082	TUOLUMNE	Mapped and Unpr	Animals - Mollusks - Bradybaenidae - Monadenia circumcarinata
Animals - Mollusks	Monadenia circumcarinata	keeled sideband	IMGASC7020	None	None	-	-		3712072	GROVELAND	Mapped	Animals - Mollusks - Bradybaenidae - Monadenia circumcarinata
Animals - Mollusks	Monadenia tuolumneana	Tuolumne sideband	IMGASC7100	None	None	-	-		3712082	TUOLUMNE	Mapped and Unpr	Animals - Mollusks - Bradybaenidae - Monadenia tuolumneana
Animals - Mollusks	Monadenia tuolumneana	Tuolumne sideband	IMGASC7100	None	None	-	-		3712083	STANDARD	Mapped and Unpr	Animals - Mollusks - Bradybaenidae - Monadenia tuolumneana
Animals - Mollusks	Monadenia yosemitensis	Yosemite Mariposa sideband	IMGASZ3010	None	None	-	-		3712061	BUCKHORN PEAK	Mapped	Animals - Mollusks - Bradybaenidae - Monadenia yosemitensis
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-		3712082	TUOLUMNE	Mapped and Unpr	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Mollusks	Margaritifera falcata	western pearlshell	IMBIV27020	None	None	-	-		3712071	JAWBONE RIDGE	Mapped	Animals - Mollusks - Margaritiferidae - Margaritifera falcata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712071	JAWBONE RIDGE	Mapped and Unpr	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712072	GROVELAND	Mapped and Unpr	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712073	MOCCASIN	Mapped and Unpr	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712082	TUOLUMNE	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712083	STANDARD	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712061	BUCKHORN PEAK	Mapped and Unpr	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712062	COULTERVILLE	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-		3712063	PENON BLANCO PEAK	Mapped and Unpr	Animals - Reptiles - Emydidae - Emys marmorata
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-		3712062	COULTERVILLE	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-		3712073	MOCCASIN	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-		3712072	GROVELAND	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-		3712071	JAWBONE RIDGE	Unprocessed	Animals - Reptiles - Phrynosomatidae - Phrynosoma blainvillii
Plants - Bryophytes	Mielichhoferia elongata	elongate copper moss	NBMUS4Q022	None	None	-		4.3	3712071	JAWBONE RIDGE	Unprocessed	Plants - Bryophytes - Mielichhoferiaceae - Mielichhoferia elongata
Plants - Bryophytes	Mielichhoferia elongata	elongate copper moss	NBMUS4Q022	None	None	-		4.3	3712082	TUOLUMNE	Unprocessed	Plants - Bryophytes - Mielichhoferiaceae - Mielichhoferia elongata
Plants - Lichens	Peltigera gowardii	western waterfan lichen	NLVER00460	None	None	-		4.2	3712081	DUCKWALL MTN.	Unprocessed	Plants - Lichens - Peltigeraceae - Peltigera gowardii
Plants - Vascular	Allium sanbornii var. congdonii	Congdon's onion	PMLIL02211	None	None	-		4.3	3712072	GROVELAND	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. congdonii
Plants - Vascular	Allium sanbornii var. congdonii	Congdon's onion	PMLIL02211	None	None	-		4.3	3712073	MOCCASIN	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. congdonii
Plants - Vascular	Allium sanbornii var. congdonii	Congdon's onion	PMLIL02211	None	None	-		4.3	3712062	COULTERVILLE	Unprocessed	Plants - Vascular - Alliaceae - Allium sanbornii var. congdonii
Plants - Vascular	Allium tuolumnense	Rawhide Hill onion	PMLIL022W0	None	None	-	1B.2		3712062	COULTERVILLE	Mapped	Plants - Vascular - Alliaceae - Allium tuolumnense
Plants - Vascular	Allium tuolumnense	Rawhide Hill onion	PMLIL022W0	None	None	-	1B.2		3712073	MOCCASIN	Mapped	Plants - Vascular - Alliaceae - Allium tuolumnense
Plants - Vascular	Eryngium pinnatisectum	Tuolumne button-celery	PDAPI0Z0P0	None	None	-	1B.2		3712073	MOCCASIN	Mapped	Plants - Vascular - Apiaceae - Eryngium pinnatisectum
Plants - Vascular	Eryngium pinnatisectum	Tuolumne button-celery	PDAPI0Z0P0	None	None	-	1B.2		3712072	GROVELAND	Mapped	Plants - Vascular - Apiaceae - Eryngium pinnatisectum
Plants - Vascular	Eryngium pinnatisectum	Tuolumne button-celery	PDAPI0Z0P0	None	None	-	1B.2		3712082	TUOLUMNE	Mapped	Plants - Vascular - Apiaceae - Eryngium pinnatisectum
Plants - Vascular	Eryngium pinnatisectum	Tuolumne button-celery	PDAPI0Z0P0	None	None	-	1B.2		3712083	STANDARD	Mapped	Plants - Vascular - Apiaceae - Eryngium pinnatisectum
Plants - Vascular	Lomatium congdonii	Congdon's lomatium	PDAPI1B0B0	None	None	-	1B.2		3712073	MOCCASIN	Mapped	Plants - Vascular - Apiaceae - Lomatium congdonii
Plants - Vascular	Perideridia bacigalupii	Bacigalupi's yampah	PDAPI1N020	None	None	-		4.2	3712082	TUOLUMNE	Unprocessed	Plants - Vascular - Apiaceae - Perideridia bacigalupii
Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2		3712083	STANDARD	Mapped	Plants - Vascular - Asteraceae - Balsamorhiza macrolepis
Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2		3712071	JAWBONE RIDGE	Mapped	Plants - Vascular - Asteraceae - Balsamorhiza macrolepis
Plants - Vascular	Balsamorhiza macrolepis	big-scale balsamroot	PDAST11061	None	None	-	1B.2		3712062	COULTERVILLE	Mapped	Plants - Vascular - Asteraceae - Balsamorhiza macrolepis
Plants - Vascular	Eriophyllum confertiflorum var.	tansy-flowered woolly sunflower	PDAST3N0D0	None	None	-		4.3	3712062	COULTERVILLE	Unprocessed	Plants - Vascular - Asteraceae - Eriophyllum confertiflorum var. tanacetiflorum
Plants - Vascular	Eriophyllum confertiflorum var.	tansy-flowered woolly sunflower	PDAST3N0D0	None	None	-		4.3	3712073	MOCCASIN	Unprocessed	Plants - Vascular - Asteraceae - Eriophyllum confertiflorum var. tanacetiflorum
Plants - Vascular	Lessingia hololeuca	woolly-headed lessingia	PDAST5S030	None	None	-		3	3712071	JAWBONE RIDGE	Unprocessed	Plants - Vascular - Asteraceae - Lessingia hololeuca
Plants - Vascular	Packera layneae	Layne's ragwort	PDAST8H1V0	Threatened	Rare	-	1B.2		3712073	MOCCASIN	Mapped	Plants - Vascular - Asteraceae - Packera layneae
Plants - Vascular	Senecio clevelandii var. heterop	Red Hills ragwort	PDAST8H0R2	None	None	-	1B.2		3712073	MOCCASIN	Mapped	Plants - Vascular - Asteraceae - Senecio clevelandii var. heterophyllus
Plants - Vascular	Wyethia elata	Hall's wyethia	PDAST9X050	None	None	-		4.3	3712071	JAWBONE RIDGE	Unprocessed	Plants - Vascular - Asteraceae - Wyethia elata
Plants - Vascular	Cryptantha mariposae	Mariposa cryptantha	PDBOR0A1Q0	None	None	-	1B.3		3712062	COULTERVILLE	Mapped and Unpr	Plants - Vascular - Boraginaceae - Cryptantha mariposae
Plants - Vascular	Cryptantha spithamaea	Red Hills cryptantha	PDBOR0A2M2	None	None	-	1B.3		3712062	COULTERVILLE	Mapped	Plants - Vascular - Boraginaceae - Cryptantha spithamaea
Plants - Vascular	Cryptantha spithamaea	Red Hills cryptantha	PDBOR0A2M2	None	None	-	1B.3		3712073	MOCCASIN	Mapped	Plants - Vascular - Boraginaceae - Cryptantha spithamaea
Plants - Vascular	Githopsis pulchella ssp. serpenti	serpentine bluecup	PDCAM07053	None	None	-		4.3	3712073	MOCCASIN	Unprocessed	Plants - Vascular - Campanulaceae - Githopsis pulchella ssp. serpentinicola
Plants - Vascular	Githopsis pulchella ssp. serpenti	serpentine bluecup	PDCAM07053	None	None	-		4.3	3712062	COULTERVILLE	Unprocessed	Plants - Vascular - Campanulaceae - Githopsis pulchella ssp. serpentinicola
Plants - Vascular	Rhynchospora capitellata	brownish beaked-rush	PMCYP0N080	None	None	-	2B.2		3712071	JAWBONE RIDGE	Mapped	Plants - Vascular - Cyperaceae - Rhynchospora capitellata
Plants - Vascular	Rhynchospora capitellata	brownish beaked-rush	PMCYP0N080	None	None	-	2B.2		3712081	DUCKWALL MTN.	Mapped	Plants - Vascular - Cyperaceae - Rhynchospora capitellata
Plants - Vascular	Lupinus spectabilis	shaggyhair lupine	PDFAB2B3P0	None	None	-	1B.2		3712073	MOCCASIN	Mapped	Plants - Vascular - Fabaceae - Lupinus spectabilis
Plants - Vascular	Lupinus spectabilis	shaggyhair lupine	PDFAB2B3P0	None	None	-	1B.2		3712072	GROVELAND	Mapped and Unpr	Plants - Vascular - Fabaceae - Lupinus spectabilis
Plants - Vascular	Lupinus spectabilis	shaggyhair lupine	PDFAB2B3P0	None	None	-	1B.2		3712062	COULTERVILLE	Mapped and Unpr	Plants - Vascular - Fabaceae - Lupinus spectabilis
Plants - Vascular	Erythronium tuolumnense	Tuolumne fawn lily	PMLIL0U0H0	None	None	-	1B.2		3712081	DUCKWALL MTN.	Mapped	Plants - Vascular - Liliaceae - Erythronium tuolumnense
Plants - Vascular	Erythronium tuolumnense	Tuolumne fawn lily	PMLIL0U0H0	None	None	-	1B.2		3712083	STANDARD	Mapped	Plants - Vascular - Liliaceae - Erythronium tuolumnense

Plants - Vascular	Erythronium tuolumnense	Tuolumne fawn lily	PMLIL0U0H0	None	None	-	1B.2		3712082	TUOLUMNE	Mapped and Unpr	Plants - Vascular - Liliaceae - Erythronium tuolumnense
Plants - Vascular	Fritillaria agrestis	stinkbells	PMLIL0V010	None	None	-		4.2	3712063	PENON BLANCO PEAK	Mapped and Unpr	Plants - Vascular - Liliaceae - Fritillaria agrestis
Plants - Vascular	Fritillaria agrestis	stinkbells	PMLIL0V010	None	None	-		4.2	3712062	COULTERVILLE	Mapped and Unpr	Plants - Vascular - Liliaceae - Fritillaria agrestis
Plants - Vascular	Calandrinia breweri	Brewer's calandrinia	PDPOR01020	None	None	-		4.2	3712062	COULTERVILLE	Unprocessed	Plants - Vascular - Montiaceae - Calandrinia breweri
Plants - Vascular	Claytonia parviflora ssp. grandif	streambank spring beauty	PDPOR030D1	None	None	-		4.2	3712071	JAWBONE RIDGE	Unprocessed	Plants - Vascular - Montiaceae - Claytonia parviflora ssp. grandiflora
Plants - Vascular	Clarkia australis	Small's southern clarkia	PDONA05040	None	None	-	1B.2		3712071	JAWBONE RIDGE	Mapped	Plants - Vascular - Onagraceae - Clarkia australis
Plants - Vascular	Clarkia australis	Small's southern clarkia	PDONA05040	None	None	-	1B.2		3712081	DUCKWALL MTN.	Mapped and Unpr	Plants - Vascular - Onagraceae - Clarkia australis
Plants - Vascular	Clarkia australis	Small's southern clarkia	PDONA05040	None	None	-	1B.2		3712082	TUOLUMNE	Mapped and Unpr	Plants - Vascular - Onagraceae - Clarkia australis
Plants - Vascular	Clarkia australis	Small's southern clarkia	PDONA05040	None	None	-	1B.2		3712062	COULTERVILLE	Mapped	Plants - Vascular - Onagraceae - Clarkia australis
Plants - Vascular	Clarkia australis	Small's southern clarkia	PDONA05040	None	None	-	1B.2		3712061	BUCKHORN PEAK	Mapped	Plants - Vascular - Onagraceae - Clarkia australis
Plants - Vascular	Clarkia biloba ssp. australis	Mariposa clarkia	PDONA05051	None	None	-	1B.2		3712062	COULTERVILLE	Mapped	Plants - Vascular - Onagraceae - Clarkia biloba ssp. australis
Plants - Vascular	Clarkia biloba ssp. australis	Mariposa clarkia	PDONA05051	None	None	-	1B.2		3712063	PENON BLANCO PEAK	Mapped	Plants - Vascular - Onagraceae - Clarkia biloba ssp. australis
Plants - Vascular	Clarkia biloba ssp. australis	Mariposa clarkia	PDONA05051	None	None	-	1B.2		3712082	TUOLUMNE	Mapped and Unpr	Plants - Vascular - Onagraceae - Clarkia biloba ssp. australis
Plants - Vascular	Clarkia biloba ssp. australis	Mariposa clarkia	PDONA05051	None	None	-	1B.2		3712081	DUCKWALL MTN.	Mapped	Plants - Vascular - Onagraceae - Clarkia biloba ssp. australis
Plants - Vascular	Clarkia biloba ssp. australis	Mariposa clarkia	PDONA05051	None	None	-	1B.2		3712071	JAWBONE RIDGE	Mapped	Plants - Vascular - Onagraceae - Clarkia biloba ssp. australis
Plants - Vascular	Clarkia biloba ssp. australis	Mariposa clarkia	PDONA05051	None	None	-	1B.2		3712072	GROVELAND	Mapped	Plants - Vascular - Onagraceae - Clarkia biloba ssp. australis
Plants - Vascular	Clarkia rostrata	beaked clarkia	PDONA050Y0	None	None	-	1B.3		3712063	PENON BLANCO PEAK	Mapped	Plants - Vascular - Onagraceae - Clarkia rostrata
Plants - Vascular	Clarkia rostrata	beaked clarkia	PDONA050Y0	None	None	-	1B.3		3712062	COULTERVILLE	Mapped	Plants - Vascular - Onagraceae - Clarkia rostrata
Plants - Vascular	Clarkia virgata	Sierra clarkia	PDONA05160	None	None	-		4.3	3712072	GROVELAND	Unprocessed	Plants - Vascular - Onagraceae - Clarkia virgata
Plants - Vascular	Clarkia virgata	Sierra clarkia	PDONA05160	None	None	-		4.3	3712082	TUOLUMNE	Unprocessed	Plants - Vascular - Onagraceae - Clarkia virgata
Plants - Vascular	Cypripedium montanum	mountain lady's-slipper	PMORC0Q080	None	None	-		4.2	3712081	DUCKWALL MTN.	Unprocessed	Plants - Vascular - Orchidaceae - Cypripedium montanum
Plants - Vascular	Diplacus pulchellus	yellow-lip pansy monkeyflower	PDSCR1B280	None	None	-	1B.2		3712081	DUCKWALL MTN.	Mapped	Plants - Vascular - Phrymaceae - Diplacus pulchellus
Plants - Vascular	Diplacus pulchellus	yellow-lip pansy monkeyflower	PDSCR1B280	None	None	-	1B.2		3712083	STANDARD	Mapped	Plants - Vascular - Phrymaceae - Diplacus pulchellus
Plants - Vascular	Diplacus pulchellus	yellow-lip pansy monkeyflower	PDSCR1B280	None	None	-	1B.2		3712072	GROVELAND	Mapped	Plants - Vascular - Phrymaceae - Diplacus pulchellus
Plants - Vascular	Diplacus pulchellus	yellow-lip pansy monkeyflower	PDSCR1B280	None	None	-	1B.2		3712071	JAWBONE RIDGE	Mapped	Plants - Vascular - Phrymaceae - Diplacus pulchellus
Plants - Vascular	Diplacus pulchellus	yellow-lip pansy monkeyflower	PDSCR1B280	None	None	-	1B.2		3712062	COULTERVILLE	Mapped	Plants - Vascular - Phrymaceae - Diplacus pulchellus
Plants - Vascular	Diplacus pulchellus	yellow-lip pansy monkeyflower	PDSCR1B280	None	None	-	1B.2		3712061	BUCKHORN PEAK	Mapped	Plants - Vascular - Phrymaceae - Diplacus pulchellus
Plants - Vascular	Erythranthe filicaulis	slender-stemmed monkeyflower	PDSCR1B150	None	None	-	1B.2		3712061	BUCKHORN PEAK	Mapped	Plants - Vascular - Phrymaceae - Erythranthe filicaulis
Plants - Vascular	Erythranthe filicaulis	slender-stemmed monkeyflower	PDSCR1B150	None	None	-	1B.2		3712071	JAWBONE RIDGE	Mapped and Unpr	Plants - Vascular - Phrymaceae - Erythranthe filicaulis
Plants - Vascular	Erythranthe filicaulis	slender-stemmed monkeyflower	PDSCR1B150	None	None	-	1B.2		3712072	GROVELAND	Mapped	Plants - Vascular - Phrymaceae - Erythranthe filicaulis
Plants - Vascular	Erythranthe grayi	Gray's monkeyflower	PDSCR1B1D0	None	None	-		4.3	3712083	STANDARD	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe grayi
Plants - Vascular	Erythranthe grayi	Gray's monkeyflower	PDSCR1B1D0	None	None	-		4.3	3712081	DUCKWALL MTN.	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe grayi
Plants - Vascular	Erythranthe grayi	Gray's monkeyflower	PDSCR1B1D0	None	None	-		4.3	3712082	TUOLUMNE	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe grayi
Plants - Vascular	Erythranthe inconspicua	small-flowered monkeyflower	PDSCR1B1F0	None	None	-		4.3	3712072	GROVELAND	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe inconspicua
Plants - Vascular	Erythranthe inconspicua	small-flowered monkeyflower	PDSCR1B1F0	None	None	-		4.3	3712071	JAWBONE RIDGE	Unprocessed	Plants - Vascular - Phrymaceae - Erythranthe inconspicua
Plants - Vascular	Navarretia miwukensis	Mi-Wuk navarretia	PDPLM0C210	None	None	-	1B.2		3712081	DUCKWALL MTN.	Mapped	Plants - Vascular - Polemoniaceae - Navarretia miwukensis
Plants - Vascular	Eriogonum tripodum	tripod buckwheat	PDPGN085Y0	None	None	-		4.2	3712073	MOCCASIN	Unprocessed	Plants - Vascular - Polygonaceae - Eriogonum tripodum
Plants - Vascular	Eriogonum tripodum	tripod buckwheat	PDPGN085Y0	None	None	-		4.2	3712062	COULTERVILLE	Unprocessed	Plants - Vascular - Polygonaceae - Eriogonum tripodum
Plants - Vascular	Delphinium hansenii ssp. ewani	Ewan's larkspur	PDRAN0B0T2	None	None	-		4.2	3712083	STANDARD	Unprocessed	Plants - Vascular - Ranunculaceae - Delphinium hansenii ssp. ewanianum
Plants - Vascular	Ceanothus fresnensis	Fresno ceanothus	PDRHA040E0	None	None	-		4.3	3712083	STANDARD	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus fresnensis
Plants - Vascular	Ceanothus fresnensis	Fresno ceanothus	PDRHA040E0	None	None	-		4.3	3712082	TUOLUMNE	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus fresnensis
Plants - Vascular	Ceanothus fresnensis	Fresno ceanothus	PDRHA040E0	None	None	-		4.3	3712081	DUCKWALL MTN.	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus fresnensis
Plants - Vascular	Ceanothus fresnensis	Fresno ceanothus	PDRHA040E0	None	None	-		4.3	3712071	JAWBONE RIDGE	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus fresnensis
Plants - Vascular	Horkelia parryi	Parry's horkelia	PDROS0W0C0	None	None	-	1B.2		3712061	BUCKHORN PEAK	Mapped	Plants - Vascular - Rosaceae - Horkelia parryi
Plants - Vascular	Jepsonia heterandra	foothill jepsonia	PDSAX0J010	None	None	-		4.3	3712063	PENON BLANCO PEAK	Unprocessed	Plants - Vascular - Saxifragaceae - Jepsonia heterandra
Plants - Vascular	Jepsonia heterandra	foothill jepsonia	PDSAX0J010	None	None	-		4.3	3712062	COULTERVILLE	Unprocessed	Plants - Vascular - Saxifragaceae - Jepsonia heterandra
Plants - Vascular	Jepsonia heterandra	foothill jepsonia	PDSAX0J010	None	None	-		4.3	3712073	MOCCASIN	Unprocessed	Plants - Vascular - Saxifragaceae - Jepsonia heterandra
Plants - Vascular	Jepsonia heterandra	foothill jepsonia	PDSAX0J010	None	None	-		4.3	3712083	STANDARD	Unprocessed	Plants - Vascular - Saxifragaceae - Jepsonia heterandra

Appendix C

Cultural Resources (Confidential – Under Separate Cover)

Draft

PHASE I SURVEY, GROVELAND COMMUNITY SERVICES DISTRICT PARK TRAILS IMPROVEMENT PROJECT, TUOLUMNE COUNTY, CALIFORNIA

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July 2022
PN 39970

TABLE OF CONTENTS

LIST OF FIGURES

Page

LIST OF TABLES

Page

MANAGEMENT SUMMARY

A Phase I cultural resources survey was conducted for the Groveland Community Services District (CSD) Park Trails Improvement Project (Project), Groveland, Tuolumne County, California. The study was conducted in preparation for proposed park trail improvements. The study area consists of approximately 2.5-miles (mi) of trails with an added 40-foot (ft) survey buffer to accommodate any project adjustments. The study area with the survey buffer totals approximately 34-acres (ac). This investigation was conducted by ASM Affiliates, Inc., with David S. Whitley, Ph.D., RPA, serving as principal investigator. Background studies for the survey were completed in October of 2021 and April of 2022. Fieldwork was completed in May of 2022. The study was undertaken to assist with California Environmental Quality Act (CEQA) compliance.

A records search of site files and maps conducted by the Central California Information Center (CCIC), California State University, Stanislaus in October 2021 for a previous project for Groveland CSD was consulted for the current study. Additionally, a Sacred Lands File (SLF) request submitted to the Native American Heritage Commission (NAHC) on September 13, 2021, for the same Groveland CSD Project, which included the current study area, was reviewed for this project. No concerns were raised by contacted tribes at that time. The tribal consultation undertaken for the previous Groveland CSD Project is considered sufficient to cover the current project.

ASM conducted a Phase I survey of the 34-ac study area on May 4th-6th, 2022. The study area was surveyed using 15-meter (m) parallel transects along the linear paths. The proposed trails follow existing roads and paths. Portions of seven previously recorded resources (P-55-000110, P-55-000719, P-55-000721, P-55-001040, P-55-002367, P-55-002368, and P-55-004934) are located within the study area. Of the seven previously recorded resources, six are historic mining or railroad related sites and one is a prehistoric habitation site (P-55-001040; previously updated by ASM in 2021). Due to the limited scope of the proposed project (i.e., within linear corridors along existing roads and paths) and the large size of several of the previously recorded sites, only the portions of the sites within the study area, with few exceptions, were updated during the survey.

Portions of sites P-55-000110, P-55-000719, P-55-000721 and P-55-002367 were identified within the study area and were updated. The portions of sites P-55-002368 and P-55-004394 located within the study area were investigated and no artifacts or features were identified. The portion of previously recorded prehistoric site P-55-001040 located within the study area was revisited and investigated and no cultural materials were identified (it is worth noting that nothing was identified by ASM during the 2021 investigation either).

Sites P-55-000110 and P-55-000719 consist of linear features only partially within the study area and they will not be impacted by proposed Project activities. Sites P-55-000721 and P-55-002367 have been previously recommended not eligible for the NRHP/CRHR and no existing site components will be impacted by proposed Project activities. No recorded features for sites P-55-002367 or P-55-004394 are located within the study area and they will therefore not be impacted by proposed Project activities.

Though no cultural materials were identified within the study area at site P-55-001040 in either 2021 or the current 2022 investigation, the site should be avoided until a formal NRHP/CRHR eligibility evaluation can be completed. As was recommended by ASM in 2021, this avoidance can be accomplished by limiting Project activities solely to the Hetch Hetchy Railroad grade (P-55-000110) which bisects the site. If this is not possible, the site should be entirely avoided.

With the avoidance of site P-55-001040, any proposed future use or development within the 34-ac study area does not have the potential to result in adverse impacts to unique or significant historical resources. A determination of no significant impacts for cultural resources is therefore recommended. It is further recommended that, in the unlikely event that cultural resources are encountered during any construction or use of the study area, an archaeologist be contacted to assess the discovery.

1. INTRODUCTION AND REGULATORY CONTEXT

At the request of Crawford & Bowen Planning, Inc., a Phase I cultural resources survey was conducted for the Groveland CSD Park Trails Improvement (Project), Tuolumne County, California (Figure 1). The study was conducted in preparation of proposed park trail improvements. The study area for the Project consists of approximately 2.5-mi of existing dirt roads and the Hetch Hetchy Railroad grade as well as the entirety of Mary Laveroni Park.

The current investigation was intended to:

- Provide a background records search and literature review to determine if any known cultural resources were present in the project zone and/or whether the area had been previously and systematically studied by archaeologists;
- Conduct an on-foot, intensive inventory of the study area to identify and record previously undiscovered cultural resources and to examine known sites; and,
- To undertake a preliminary assessment of such resources, should any be found within the subject property.

ASM Affiliates, Inc., of Tehachapi, California, conducted the Phase I cultural resources study. David S. Whitley, Ph.D., RPA, served as Principal Investigator, and fieldwork was completed by ASM Associate Archaeologist William Bacon, B.A.

This manuscript constitutes a report on the Phase I survey. Subsequent sections provide background to the investigation, the findings of the archival records search; a summary of the field surveying techniques employed; and the results of the survey fieldwork. We conclude with management recommendations, including a recommended determination of effect, for the study area.

1.1 STUDY AREA DESCRIPTION AND LOCATION

The study area is located to the north of downtown Groveland and is centered on Mary Laveroni Park. Much of the proposed park trails improvements will take place along Groveland Creek (Garrote Creek), Ferretti Road, and the rail grade of the Hetch Hetchy Railroad. Additional improvements will occur to existing dirt roads through the former Mount Jefferson Mine to the northwest of Mary Laveroni Park. A survey buffer of 40-ft was added to the trail system creating an 80-ft survey corridor. A wider, nearly 300-ft corridor was applied to two proposed creek crossings where pedestrian bridges will be constructed. The trail system and Mary Laveroni Park create a study area of approximately 34-ac (Figure 2).

1.2 PROJECT DESCRIPTION

The proposed Project involves the improvement of approximately 2.5 linear miles of existing dirt roads, trails, and the rail grade for the Hetch Hetchy Railroad. The trail improvements will vary throughout but will include 12-ft wide concrete paths, dirt trail improvements, and the construction of two pedestrian bridges spanning Groveland Creek (Garrote Creek). One bridge will be located

at Mary Laveroni Park, which will serve as access for the proposed trails, and the second bridge will cross the creek where two above-ground pipelines currently span the creek. Additional proposed improvements will take place at Mary Laveroni Park and will include new restroom facilities; the relocation of the existing transit spot and the installation of a new covered transit shelter with benches; new covered picnicking areas; a new public information and wayfinding kiosk at the proposed trailhead; and new trash and recycling receptacles throughout the park.

1.3 REGULATORY CONTEXT

1.3.1 California Environmental Quality Act

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when "historically significant" or "unique" cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

> (A) Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
>
> (B) Are associated with the lives of persons important in our past;
>
> (C) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
>
> (D) Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
>
> (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
>
> (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.

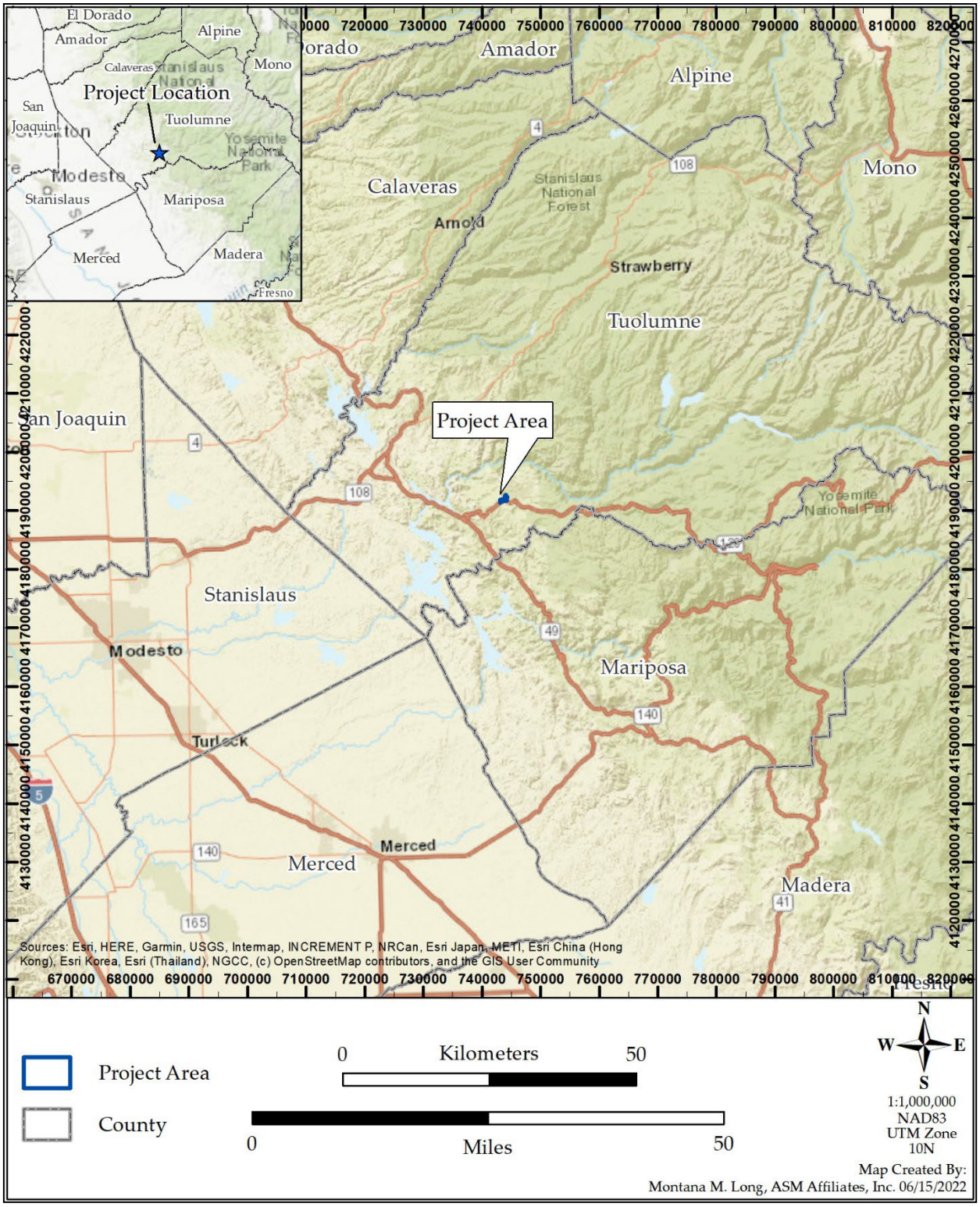

Figure 1. Groveland CSD Park Trails Improvement Project vicinity, Tuolumne County, California.

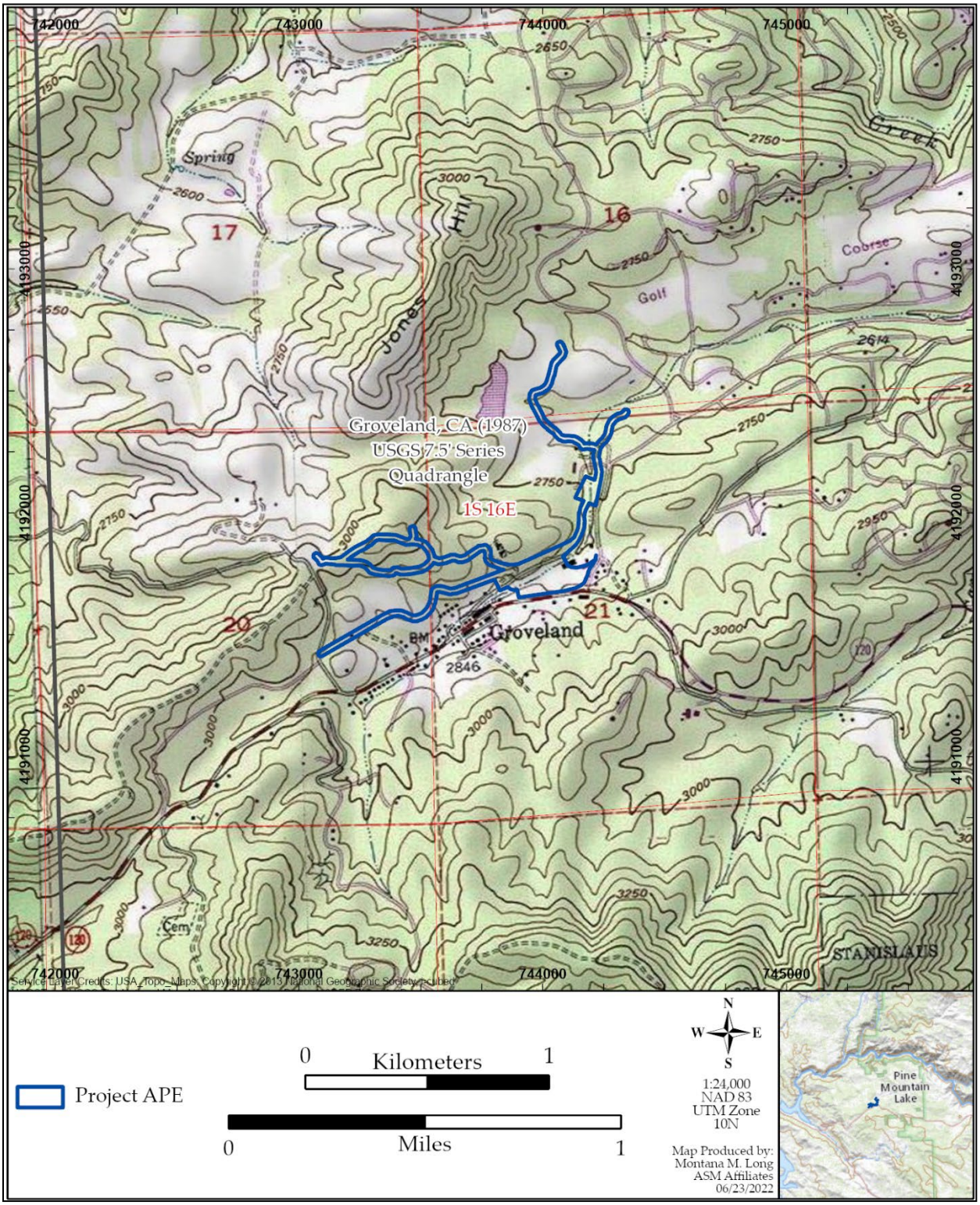

Figure 2. Groveland CSD Park Trails Improvement Project study area, Tuolumne County, California.

2. ENVIRONMENTAL AND CULTURAL BACKGROUND

2.1 ENVIRONMENTAL BACKGROUND

The Project area is on the western foot slopes of the Sierra Nevada mountains to the east of the San Joaquin Valley in central California with elevations around 3,000-ft. above sea level. The nearest modern water source is Pine Mountain Lake reservoir, which is approximately 1.5-mi northeast of Groveland within the Pine Mountain Lake Community. The reservoir is fed from Big Creek, Garrote Creek, and other tributaries within the Big Creek–Tuolumne River watershed. One of those tributaries is Groveland Creek (also known as Garrote Creek) which runs from southwest to northeast through the study area along the north side of Mary Laveroni Park. The region is densely forested and mountainous, indicative of the foothills of the western Sierra Nevada Mountains.

The geologic outcrops around the Project study area are predominantly Paleozoic marine metasedimentary rocks with mixed components of slate, sandstone, shale, chert, conglomerate, limestone, dolomite, marble, phyllite, schist, hornfels, and quartzite (Jennings et al. 2010). There are also minor amounts of Mesozoic quartz-rich granite outcrops adjacent to Groveland, which likely contributed to the source of desirable metals for the mining history of the area. Soils throughout the study area are a mix of multicomponent soils that are typically classified as gravelly loam/gravelly clay loam as part of the Urban land-Nedsgulch-Wallyhill complex, and sandy clay loam of the Musick-Hotaw complex (USDA, web soil survey 2021).

2.2 ETHNOGRAPHIC BACKGROUND

Prior to Euro American contact in 1789, the central Sierra Nevada foothills, which are in the project area, were traditionally occupied by the Central Sierra Miwok (also known as the Miwuk, Mi-wuk, or Me-wuk). Before contact, the Miwok were hunter-gathers who lived in small bands without a centralized political authority, cultivated tobacco, and domesticated dogs. Almost all edible vegetables were utilized as a food source by the Miwok, with oak acorns being a favorite staple for the fat and protein source. Other staple food sources included grasshoppers and mussels that groups collected along the Stanislaus River. In addition, the Miwok utilized flat-bottom baskets for the storage of food and later food consumption. The Miwok hunted animals with arrows, clubs, or snares, dependent on the animal and situation.

The Miwok of Tuolumne County lived in permanent but dispersed villages. These villages were usually near creeks, springs, or other freshwater sources and built below the heavy seasonal snowline. However, temporary hunting and gathering camps were established and occupied during the summer months in higher elevations. The permanent villages could vary in structure style, but each had vital elements, including a large storehouse where acorns, the primary dietary staple, were stored. Other essential elements at each permanent village included a sweathouse and roundhouse. The sweathouse was the smaller of the two structures and was primarily used for healing ceremonies; it contained a small fire pit inside. The Miwok roundhouse was used for religious and social activities and was the more expansive of the two structures. Homes within

Miwok villages were conical shaped, usually built of bark, containing one centralized fire pit and a smoke hole in the top.

Within Miwok communities, men were responsible for hunting, for tribal relations amongst other local indigenous groups, and for trading, including that of acorns, baskets, and other items such as pine nuts, salt, and obsidian. The women of the Miwok communities hand-crafted baskets and were responsible for gathering edible food items such as the acorn (Tuolumne Band of Me-Wuk Indians 2021; Tuolumne County Historical Society 2021).

2.3 PRE-CONTACT ARCHAEOLOGICAL BACKGROUND

The following section provides a regional chronology for the Sierra Nevada foothills and adjacent San Joaquin Valley by providing a categorization of prehistoric time periods in terms of cultural stages describing archaeological resources and cultural patterns for each time frame.

The Sierra Nevada foothills, adjacent San Joaquin Valley, and Coast Range have a long and complex cultural history with distinct regional patterns that extend back in time for more than 11,000 years (McGuire 1995). The region's physical landscape was characterized by grasslands and riparian forests with a large, diverse mammalian population. The inhabitants of the Central Valley were likely large game hunters. Evidence of early use of the San Joaquin Valley and the Sierra Nevada foothills is represented by the discovery of distinctive, fluted, and stemmed points (e.g., Clovis points), found margins of extinct lakes in the valley, including Tulare Lake, approximately 50 mi. southeast of the project. The hunters who used these points existed only between 11,200 and 10,900 B.P. The complex of artifacts characteristic of this period is often called the Clovis complex.

Most researchers believe that another widespread cultural complex followed the Clovis Complex, often termed Early Archaic. The indicative artifacts of this period, which has also been called by its geological name, the Early Holocene period, consist of stemmed spear points rather than the fluted points that typify the Clovis Complex. This poorly defined early cultural tradition is best known from a small number of sites in the San Joaquin Valley and the Sierra Nevada foothills and is thought to date from 8000 to 10,000 B.P.

The increase in food-grinding implements found in archaeological sites indicates that approximately 8,000 years ago, many California cultures shifted the focus of their subsistence strategies from hunting to seed gathering. Recent studies suggest that this cultural pattern is more widespread than initially assumed. In addition, archaeological sites at the base of the Sierra Nevada foothills consist of large artifact assemblages of millingslabs, handstones, and various cobble-core tools, representing “frequently visited camps in a seasonally structured settlement system” (Rosenthal et al. 2007:152), further indicating the reliance on plant foods during this time. Radiocarbon dates associated with this period vary between 8000 and 2000 B.P., and cluster in the 6000 to 4000 B.P. range.

Cultural patterns as reflected in the archaeological record have become better defined for archaeological cultures dating to the last 3,000 years. The archaeological record indicates increasing complexity as specialized adaptations to locally available resources develop and

populations expand. Many sites dated to this period contain mortars and pestles or are associated with bedrock mortars, suggesting that the occupants used acorns intensively.

The range of resources used for subsistence increased, and exchange systems expanded significantly from the previous period. Along the coast and in the Central Valley, archaeological evidence of social stratification and craft specialization is indicated by well-made artifacts, such as charm stones and beads, which were often found with burials (US Department of Interior 2008).

2.4 HISTORICAL BACKGROUND

Some of the earliest nonindigenous explorations of the Sierra Nevada mountains include Euro American explorers and fur trappers such as Jedediah Smith, Kit Carson, and Joseph Walker. The earliest of these nonindigenous expeditions and explorations took place in 1827 with Jedediah Smith and continued into the 1840s with small group expeditions trekking across the Sierra Nevada. Cartographers and explorers continued to explore the Sierra Nevada throughout the late nineteenth and early twentieth centuries, with Yosemite Valley becoming the first federally protected region of the Sierra in 1864 (Farquhar 1925).

The discovery of gold in northern California in 1848 resulted in a dramatic increase in population, consisting of a good portion of fortune seekers and gold miners who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada mountains in eastern Kern County, the area's population snowballed. In California in 1848, with the exclusion of indigenous inhabitants, the population was 10,000 residents, and in just over five years, that number increased to 250,000 residents (Dilsaver 1983). Some new immigrants began ranching in the San Joaquin Valley to supply the miners and mining towns. Ranchers grazed cattle and sheep, and farmers dry-farmed or used limited irrigation to grow grain crops, leading to the creation of small agricultural communities throughout the valley (JRP Historical Consulting 2009). Like many short-lived and quickly produced mining towns and camps of the time, Groveland was constructed at the foothills of the Sierra Nevada. The miners that inhabited these towns and camps now turned from panning to lode and hydraulic mining during this time. The thrill and accessibility of easy gold was gone by the mid-1850s, and only labor-intensive mining operations remained productive. The once sprawling mining towns and camps amongst the foothills were ghost towns by the end of the 1860s. Nearly all mining operations were without indigenous peoples, having instead been run out by nonindigenous settlers.

The community of Groveland was founded by James D. Savage, who started mining in the area around 1849 during the Gold Rush. During this time, two mining camps were created, Big Oak Flat and Groveland. These camps were known as the western and eastern camps of “Savage’s Diggins” at the time. Follow Savage’s departure from the area the following year, the eastern camp (Groveland) was renamed “Garrote,” a Spanish term referring to a form of execution involving strangulation, after a Mexican man was hanged in the town for allegedly stealing gold dust said to value $200. Coincidentally, another hanging took place in a camp a couple of miles east shortly thereafter and that settlement also received the name Garrote. Groveland got priority as the first Garrote and it became known as “Garrote I” or “First Garrote,” while the other settlement became known as “Second Garrote.” In 1875, Garrote was renamed Groveland at the suggestion of some

residents who found the name Garrote to be uncivil (Paden and Schlichtmann 1955). Second Garrote maintained its name and is now a ghost town and California Historic Landmark.

Groveland experienced three separate periods of economic growth: the Gold Rush Era (1849-1865), the Hard Rock Mining Era (1895-1915), and the Hetch-Hetchy Era (1914-1929). The Gold Rush Era (1849-1865), as previously discussed, is when the community of Groveland saw its beginnings. Groveland was part of the Big Oak Flat Mining District and the site of the Mount Jefferson Mine (then known as Poncho) and the Rhode Island Mining Claim. The claims saw short-lived success in the mining of gold and were quickly relegated to inconsistent mining for the next several decades until newer technologies were developed which allowed for quartz (hard rock) mining to become productive. The hard rock years were boom years, and the population in Toulumne County grew by 83 percent between 1890 and 1900 (Pierce and Marti 2019). Like the production of gold, the hard rock mining boom was short-lived. By 1910, both the Mount Jefferson Mine and the Rhode Island Mining Claim were either idle or unproductive (Davis 1998; Thornton 1994).

After the decline in mining, a new opportunity for the community of Groveland presented itself in the form of the O'Shaughnessy Dam and Hetch Hetchy Reservoir. The development of the Tuolumne River Hetch Hetchy water project for the city of San Francisco in the early 1900s enabled Groveland to develop and grow to substantial size despite always being a vital stop on the highway to Yosemite. Groveland was chosen as the site for the Mountain Division construction facilities and the railroad stock rolling maintenance station for the O'Shaughnessy Dam/Hetch Hetchy Reservoir. The Hetch Hetchy Railroad, which was used to carry workers and materials to the dam project, was constructed through the town just north of present-day Mary Laveroni Park on the north side of Groveland Creek (Garrote Creek). During this development, a hospital was constructed to temporarily treat and service the workers who settled in the area. After the dam's completion in 1933, the Hetch Hetchy Railroad saw limited use and Groveland became a less vital stop on the highway to Yosemite. The tracks for the Hetch Hetchy Railroad were removed in 1949 (Thornton 1994). The town received a revitalization and tourism boom in the late 1960s when Pine Mountain Lake, approximately one mile east of Groveland, was developed by Boise Cascade (GCSD 2022a).

Mary Laveroni Park was built in the 1980s to serve the communities recreational needs. The park was originally known as "Wayside Park." In 2003, as part of 50th anniversary celebrations for Groveland CSD, the park was renamed Mary Laveroni Park in honor of one of Groveland CSD's first directors. In addition to serving the communities recreational needs, the park also serves as a staging area for emergency response crews during emergencies such as wildfires (GCSD 2022b).

3. ARCHIVAL RECORDS SEARCH

In order to determine whether the 34-ac study area had been previously surveyed for cultural resources, and/or whether any such resources were known to exist within it, an archival records search conducted by the staff of the CCIC for a previous Groveland CSD project in 2021 was consulted. This study is included in Confidential Appendix A of this report and is summarized below.

The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study area; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

Results provided by the CCIC note a total of 17 previous projects that have been completed within the 0.5-mi records search radius. Of these projects, 7 have been completed within the project study area (Table 1). The results identified a total of 24 previously recorded sites within the 0.5-mi records search radius. Of these resources, 8 are located within the study area (Table 2).

Table 1. Survey Reports Within the Study Area

Study No.	Date	Author	Title
TO-01158	1983	Levulett	Archaeological Survey Report for the Proposed Groveland Bypass Project, Tuolumne County 10-TUO-120 P.M. 29.3/33.3 10203-031281. See also HRER TO-01158A and HAS TO-01158B.
TO-02451	1994	Thornton	A Cultural Resources Survey and Assessment of the Groveland Community Services District Properties.
TO-3514	1999	Davis-King	Historical Resources Survey Report (Positive) for the Proposed Mt. Jefferson Heights Subdivision, In Groveland, Tuolumne County, California. William De Garmo and Moro Trading Corporation.
TO-04583	2002	Francis	Cultural Resources Survey, APN 07-060-08 & -09, & APN 66-070-05: Colored Cemetery Parcel, Groveland, Tuolumne County, California.
TO-08955	2019	Pierce & Marti	State Water Resources Control Board Supplemental Historic Properties Identification Report, Groveland Community Services District Downtown Groveland and Big Oak Flat Sewer Collection System Improvement Project, Tuolumne County, California
TO-09194	2018	Patrick	Letter Report: RE: Mary Laveroni Park Flood Restoration, Groveland
--	2021	Bibby, Jokela, and Whitley	Cultural Resources Survey and Supplemental Report Sewer Collection System Improvement Project, Big Oak Flat, Groveland, and Pine Mountain Lake, Groveland Community Services District, Tuolumne County, California

Table 2. Resources Within the Study Area

Primary #	Trinomial	Age	Description
P-55-000110	CA-TUO-2007H	H	Historic Hetch Hetchy Railroad (HHRR) grade.
P-55-000719	CA-TUO-3814H	H	Historic Building
P-55-000720	CA-TUO-3815H	H	Historic Building
P-55-000721	CA-TUO-3816H	H	Mining Site in Rhode Island Mining Claim
P-55-001040	CA-TUO-10	P	Prehistoric site with milling and lithics
P-55-002367	CA-TUO-1371H	H	Remains of structures related to HHRR
P-55-002368	CA-TUO-1372H	H	Refuse scatter
P-55-004934	CA-TUO-4178H	H	Mount Jefferson Mine site

An SLF request was submitted to the NAHC on September 13th, 2021 for a previous project for Groveland CSD which included the current project area. The NAHC responded on October 23rd, 2021, with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the project area. ASM wrote to contacts provided by the NAHC for additional information pertaining to the project on October 26th, 2021. Additional emails were sent on October 26th and December 1st, 2021. Two responses were received: one from the Washoe Tribe of Nevada and California deferring to the Tuolumne Me-wuk Tribe on October 26th, 2021, and one from the Tuolumne Me-Wuk Tribal Council stating that they have no knowledge of cultural resources, areas, or concerns within the project area. The tribal consultation undertaken for the previous project is considered satisfactory for the current Groveland CSD project. The results of the previous consultation are available in Confidential Appendix A.

4. METHODS AND RESULTS

4.1 SURVEY METHODS

Field methods were designed to meet all professional requirements, including the *Secretary of the Interior's Standards and Guidelines*. ASM completed an intensive, on-foot examination of the ground surface by walking parallel 15-m transects, looking for evidence of archaeological sites in the form of artifacts, surface features (such as house pits), and archaeological indicators (e.g., anthropogenic soils or burnt animal bone). The identification and location of any new or previously discovered sites; tabulation and recording of surface diagnostic artifacts; site photography and sketch mapping; preliminary evaluation of site integrity; and site recording or, in the case of previously recorded sites, site record updating followed the California OHP Instructions for Recording Historic Resources and Department of Parks and Recreation (DPR) 523 forms for site recording. GPS data was collected with an Apple iPad mini using the ArcGIS Field Maps app paired with a Trimble R1 unit capable of sub-meter accuracy.

4.2 SURVEY RESULTS

An intensive Phase I pedestrian survey of the entire 34-ac Project study area was completed on from May 3rd-6th, 2022, by ASM Associate Archaeologist William Bacon, B.A. The eight sites within the study area were revisited during the field survey. Due to the limited scope of the proposed project (i.e., within linear corridors along existing roads and paths) and the large size of several of the previously recorded sites, only the portions of the sites within the study area, with few exceptions, were updated during the survey. New segments of linear sites P-55-000110 (Hetch Hetchy Railroad) and P-55-000719 (Deer Flat Ditch System) were recorded and portions of sites P-55-000721, P-55-001040, P-55-002367, and P-55-002368 were investigated and updated. Site P-55-000720 was found to be outside of the study area and, therefore, was not updated.

Pedestrian survey of Mary Laveroni Park, aided by historic aerial imagery, revealed that all structures within the park date to the period of construction in the 1980s and are not considered unique or significant.

Original site records for the seven sites located within the study area are available in Confidential Appendix B. Site updates were completed for the seven sites within the study area and are available in Confidential Appendix C. All photographs and sketch and location maps for the updated resources are available in their respective records. Site descriptions are provided below:

4.2.1 P-55-000110/CA-TUO-2007H (Hetch Hetchy Railroad)

Numerous segments of the Hetch Hetchy Railroad have been recorded over the decades. Mark V. Thornton recorded a segment of the Hetch Hetchy Railroad in 1994 within the current study area. Thornton combined features from two nearby sites (P-55-002367 and P-55-002368) into site P-55-000110 based on age, use, and proximity. Sites P-55-002367 and P-55-002368 are separate sites according to the IC and the complete identification and update of all features and the relationship among the sites are beyond the scope of this study. Therefore, this update of P-55-

000110 is solely for the rail grade and not the features from sites P-55-002367 and P-55-002368. See below for updates of those sites.

In addition to the small segment within the current study area first recorded by Mark V. Thornton in 1994, ASM also recorded a segment of P-55-00110 in 2021 as part of the Sewer Collection System Improvement Project, Big Oak Flat, Groveland, and Pine Mountain Lake, Groveland Community Services District, Tuolumne County, California. During the current study, a new 2,460-ft segment, which includes the segment recorded by Thornton (1994) was added to the previous segment updated by ASM in 2021. The segment is now continuous for approximately 1.4-mi from where it closely parallels Highway 120 between Big Oak Flat and Groveland on the west, to where it crosses Groveland Creek (Garrote Creek) near Ferretti Rd on the east.

The alignment of the Hetch Hetchy Railroad here is first seen on the 1947 Groveland CA, USGS 7.5' Quadrangle. Construction on the Hetch Hetchy Railroad was begun in 1916 to support construction of the Hetch Hetchy water system, and Groveland was chosen as the location for the Mountain Division of field operations. The population of Groveland grew with rail workers and other project staff taking up residence. After the completion of the O'Shaughnessy Dam and Hetch Hetchy Reservoir in 1933 the railroad saw limited use, and the tracks were eventually removed in 1949 (Thornton 1994).

Extensive sections of the rail grade have been lost with increased construction and water projects, including the Pine Mountain Lake Reservoir and subdivision (Thornton 1994). Currently, the rail grade in the study area serves as a road and walking path. The grade crosses Groveland Creek (Garrote Creek) at the east end of Mary Laveroni Park before turning north. The north-trending segment of the rail grade now serves as paved Ferretti Rd. The only evidence of the former railroad is the occasional rail tie embedded in the roadbed.

ASM recommended the segment recorded in 2021 as not eligible for the NRHP or CRHR:

> While portions of the greater historic linear corridor may be eligible for NRHP eligibility under criteria A or C, this segment lacks sufficient integrity to convey its significance. This segment maintains its integrity for location and setting, but because it has been completely removed, bulldozed, and the ground surface is highly disturbed, it lacks the integrity of design, materials, workmanship, feeling, and association. (Bibby et al. 2021:16-17)

4.2.2 P-55-000719/CA-TUO-3814H

Site P-55-000719/CA-TUO-3814H consists of a historic water conveyance system likely associated with the late 19th century Deer Flat Ditch. It was first recorded in 1994 by Mark V. Thornton. Thornton (1994) suggests that the recorded ditches "may have been rehabilitated and used from 1905 to 1910." As a separate resource, the "Deer Flat Ditch system conveyed water from Big Creek, Second Garrote Creek, and Garrote Creek to placer mines at Deer Flat."

During the current study, ASM was unable to locate any evidence of the parallel ditches at the locations identified by the IC within the study area; however, two parallel ditches were identified nearby that were partially within the study area. These ditches roughly follow the contour and

direction of the ditches as reported by the IC and generally match in shape and size the ditches described in the previous site record. It is assumed that the ditches identified by ASM are the same as those described in the P-55-000719 site record and the short segments were updated as such. Though only a small portion of the eastern ditch is located within the study area, portions of both ditches were updated to avoid future confusion as to whether two ditches existed in that location.

The recorded length of the eastern ditch segment is approximately 316-ft long, of which only 104-ft is located within the study area. The recorded length of the western ditch is approximately 63-ft, all of which is located outside of the current study area. The investigated portions are earthen in construction and similar to previously recorded portions. No additional refuse or features were noted within or nearby the ditches.

4.2.3 P-55-000721/CA-TUO-3816H

Site P-55-000721/CA-TUO-3816H is composed of a mined drainage with tailings and features associated with mining. It was first recorded in 1994 by Mark V. Thornton as associated with the Rhode Island Mining Claim. The site was later updated by Marty and Marti in 2019, at which point it was recommended not eligible for the NRHP. ASM revisited the site in 2021 as part of the Sewer Collection System Improvement Project, Big Oak Flat, Groveland, and Pine Mountain Lake, Groveland Community Services District, Tuolumne County, California. At that time, ASM found the site to be in the same condition as the 2019 site update and concurred with the recommendation that the site was not eligible for the NRHP.

Thornton (1994) originally reported a total of fifteen features (Feature 1a-15) related to mining, water conveyance, and road systems. He identified the site as being associated with both the Gold Rush Era (1849-1865) and the Hard Rock Mining Era (1895-1915). Marty and Marti updated the site in 2019 and relocated only 9 of the original 15 features. Much of the site had been impacted by a large flood in 2018 and Marty and Marti hypothesized that some features were washed away. All features were impacted by the flood and the site is in poor condition. Pierce and Marti (2019) evaluated the site for NRHP eligibility and recommended the site not eligible. They said:

> As an archaeological site, P-55-000721 is a collection of spatially related features related to mining along the west side of Garrote Creek thought to be associated with the Rhode Island Mine, because they are located within the vicinity of the claim. There are few mentions of the mine in the newspapers of the time. If all the features are indeed associated with the Rhode Island Mine, the mine itself doesn't appear to have been important in the broad patterns of history but was one of many relatively short-lived operations in and around Groveland. It may have had potential for significance under Criterion A on the local level for its association with the Hard Rock Mining Era in Groveland; however, the absence of the stamp mill and main mine shaft, and the poor condition of the recorded features, the site does not convey the design, workmanship, or feeling. The setting has also been significantly altered by the development of the town after 1915. It appears the site no longer has sufficient integrity to convey any historic significance. It is associated with Thomas Reid, but Reid is not a historically important figure nor can he be associated with the most productive years of hard rock mining in Groveland. It is not eligible under Criterion B. The site does not appear eligible under Criterion C as a contributor to a district as there isn't anything left of the Rhode Island Mining claim except

> what has been recorded as this site. Neither does it appear to have potential under Criterion D as the historic trash dump was not relocated and features themselves give no information on how they were connected to the larger mining operation. (Pierce and Marti 2019:14)

ASM revisited the site during the current study and updated the portion of the site that is within the study area. Only Feature 1a, a ditch, was relocated within the study area. The recorded segment of Feature 1a is approximately 220-ft long by 3-ft wide by 1-ft deep. Thornton (1994) and Marty and Marti (2019) identified the segment as approximately 490-ft long. The area was overgrown during the survey, and it is likely the ditch is longer than the visible portion identified by ASM. Aside from the segment of Feature 1a, ASM also identified a length of pipe which appears on the Marty and Marti (2019) sketch map.

4.2.4 P-55-001040/CA-TUO-10

Site P-55-001040/CA-TUO-10 was originally recorded by Caltrans in 1982 for the proposed Groveland Bypass project. They reported a prehistoric habitation site with a lithic scatter, bedrock mortars, and midden located near downtown Groveland. Previously recorded artifacts included a Desert Side-notched projectile point, biface fragments, flake tools, and core. The archaeologists undertook 25 one square meter surface scrapes at that time, many of which were positive for cultural remains (Levulett 1983). ASM revisited and updated the site in 2021 as part of the Sewer Collection System Improvement Project, Big Oak Flat, Groveland, and Pine Mountain Lake, Groveland Community Services District, Tuolumne County, California.

During the 2021 update, ASM was unable to relocate or identify any prehistoric artifacts, features, or cultural components within the site. At the time of the update, the site was overgrown with tall grasses and covered with seasonal fallen leaves in canopied areas, limiting ground visibility. Surface scrapes were made in areas identified as containing “very dark midden” with negative results. ASM was unable to relocate the three bedrock mortar holes, likely due to dense leaf cover. ASM did relocate geographical features such as trees, fence lines, concrete culvert, bed rock outcrop, and the spring shown on the original site record and use those geographical features to identify approximate locations of the two loci, midden area, and mortar holes. The site is bisected north/south by a gravel road, and east/west by a segment of the former Hetch Hetchy Railroad (P-55-000110/CA-TUO-2007H), which has been demolished. Within the railroad bed are two sewer line access manholes.

During the current study, ASM revisited the portion of the site within the study area and was once again unable to relocate any cultural materials. As it was 2021, the site was overgrown with tall grasses during the survey. Locus 2, a chert and obsidian lithic scatter, is recorded entirely within the current study area; however, no cultural materials were identified within the locus in either 2021 or 2022. The location of the locus is presumed from the 1982 sketch map and based on the spatial relationship between geographical features such as trees, fence lines, and culverts. It is possible the locus is incorrectly plotted.

ASM recommended the site as potentially eligible for the NRHP/CRHR in 2021 but indicated that the location of the project within the existing Hetch Hetchy Railroad grade would avoid any impacts to the site. This was because the site in that location has been heavily disturbed and, for

all intents and purposes, destroyed by railroad construction and then subsequent demolition, including removal of rails, ties, and ballast. Additionally, further disturbance within this corridor occurred with the construction of a pipeline and excavation for manhole access.

4.2.5 P-55-002367/CA-TUO-1371H

Site P-55-002367/CA-TUO-1371H was originally recorded by Caltrans in 1982 for the proposed Groveland Bypass Project as a number of features related to the Hetch Hetchy Railroad. Interestingly, the Hetch Hetchy Railroad grade itself was not recorded during this effort. Caltrans identified seven separate features, which included a concrete foundation (Feature 1), a cobble and cement outline with retaining wall (Feature 2), an additional concrete foundation with associated debris (Feature 3), a Portland cement concrete pad (Feature 4), vertically laid schist slabs (Feature 5), a schist retaining wall (Feature 6), and a railroad drain oil sump (Feature 7). Caltrans also identified domestic and industrial debris mostly associated with F3 and F4. The site was identified as being the location of the historic Hetch-Hetchy Railroad Hospital, Clubhouse, and other associated features.

The site was updated in 1994 by Mark V. Thornton. As mentioned above, Thornton (1994) disagreed with the Caltrans decision to record the features at the site as separate from the Hetch Hetchy Railroad:

> While the Caltrans' study does record the hospital site and the oil sump in CA-TUO-1371H, it is curious that this record does not identify the railroad grade as a cultural resource. The rationale for including the oil sump in CA-TUO-1371H without acknowledging the other features that are located along the railroad grade is also puzzling. (Thornton 1994)

Thornton renumbered many of the features from the original 1982 recording of P-55-002367 when he added them to P-55-000110. The feature numbers above are the original 1982 feature numbers which were retained for this update.

During the current study, ASM relocated the site and found that only Feature 7, the railroad drain oil sump, was located within the study area. Feature 7 is separated to the east from the main components of the site by approximately 700-ft. The feature is a large rectangular Portland cement concrete holding tank cut into the south side of the rail grade. It measures approximately 41-ft long by 15-ft wide by between 4-ft and 6-ft deep. There are two iron drainpipes coming out from under the rail grade with an adjacent cobblestone and schist retaining wall.

Additional features were observed outside of the study area on the north side of the rail grade between the grade and the dirt road (Thornton Road) which heads up to the Mount Jefferson Mine. These features were not updated as they were outside of the study area.

Caltrans evaluated P-55-002367 for eligibility to the NRHP in 1983 and recommended the site not eligible on “the basis of its lack of integrity and its poor prospect of yielding meaningful information” (O’Connor and Speer 1983).

4.2.6 P-55-002368/CA-TUO-1372H

Site P-55-002368/CA-TUO-1372H was originally recorded by Caltrans in 1982 for the proposed Groveland Bypass Project as a dense historic refuse scatter. As with site P-55-002367, Thornton updated P-55-002368 in 1994 and made the decision that it should be part of site P-55-000110 rather than a separate site. He subsequently recorded P-55-002368 as Feature 6 of P-55-00110.

The site consists of mid-19th century refuse mostly contained within an intermittent drainage just north of the Hetch-Hetchy Railroad grade (P-55-000110). Refuse on site includes assorted beverage and food cans, assorted glass and ceramics fragments, and remnants of at least one stove pipe. According to Thornton (1994), landscape brushing and burning by the Groveland CSD has both exposed the site and accelerated decay of site constituents.

During the current study, ASM was unable to locate any refuse within the location provided by the IC. Examination of the previous sketch maps suggests the IC location is incorrect and the site may actually be located approximately 280-ft west within a small intermittent drainage. The drainage location is entirely outside of the current study area and was therefore not investigated.

Caltrans evaluated P-55-002368 for eligibility to the NRHP in 1983 and recommended the site not eligible because "it lacks demonstrable association with a specific event or historical pattern" (O'Connor and Speer 1983:36).

4.2.7 P-55-004934/CA-TUO-4178

Site P-55-004934/CA-TUO-004178 consists of the historic Mount Jefferson Mine. It was recorded in 1998/1999 by Davis-King & Associates. The mine is associated with both the Gold Rush Era (1849-1865) and the Hard Rock Mining Era (1895-1915).

The site consists of historic mining features associated with the mid-19th century Mount Jefferson Mine. Although the mine itself began operation in the 1850s, the recorded remains of the site appear to date to the last phase of operation between 1901-1908. Davis-King & Associates (1998/1999) originally recorded 16 features of which all are associated with mining activities and road access. An early 20th-century refuse scatter was also recorded along the southeast boundary of Mount Jefferson Mining Claim.

ASM revisited the site to update the portions within the study area and found that none of the recorded features are located within the study area. The study area follows previously bulldozed haul roads, which is likely the reason for the lack of site constituents. The area is overgrown with manzanita and other brush and visual inspection of areas outside of the study area also did not reveal any site constituents. The site is in poor condition and has apparently deteriorated since the 1998/1999 recording when Davis-King & Associates (1998/1999) reported the "site area has been bulldozed, parent rock has been redistributed, haul roads have been modified, equipment has been removed, some terraces have been obliterated, and organic constituents are missing (decomposed perhaps)."

5. SUMMARY AND RECOMMENDATIONS

An intensive Phase I cultural resources survey was conducted for the Groveland CSD Park Trails Improvements Project. The study area consists of a 34-ac area of existing roads and trails and Mary Laveroni Park. A records search of site files and maps previously conducted at the CCIC, California State University, Stanislaus in October of 2021 was consulted for this study. Results provided by the CCIC note a total of 17 previous projects that have been completed within the 0.5-mi records search radius. Of these projects, 7 have been completed within the project study area. The results identified a total of 24 previously recorded sites within the 0.5-mi records search radius. Of these resources, 8 are located within the study area.

An SLF request was submitted to the NAHC on September 13th, 2021 for a previous project for Groveland CSD which included the current project area. The NAHC responded on October 23rd, 2021, with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the project area. ASM wrote to contacts provided by the NAHC for additional information pertaining to the project on October 26th, 2021. Additional emails were sent on October 26th and December 1st, 2021. Two responses were received: one from the Washoe Tribe of Nevada and California deferring to the Tuolumne Me-wuk Tribe on October 26th, 2021, and one from the Tuolumne Me-Wuk Tribal Council stating that they have no knowledge of cultural resources, areas, or concerns within the project area. The tribal consultation undertaken for the previous project is considered satisfactory for the current Groveland CSD project.

ASM conducted the Phase I survey of the 34-ac study area on May 3rd-6th, 2022. The study area was surveyed using 15-m parallel transects. Portions of seven previously recorded resources (P-55-000110, P-55-000719, P-55-000721, P-55-001040, P-55-002367, P-55-002368, and P-55-004934) located within the study area were updated. Of the seven previously recorded resources, six are historic mining or railroad related sites and one is a prehistoric habitation site (P-55-001040).

Portions of sites P-55-000110, P-55-000719, P-55-000721 and P-55-002367 were identified within the study area and were updated. The portions of sites P-55-002368 and P-55-004394 located within the study area were investigated and no artifacts or features were located. The portion of previously recorded prehistoric site P-55-001040 located within the study area was revisited and investigated and no cultural materials were identified (it is worth noting that nothing was identified by ASM during the 2021 investigation either).

5.1 RECOMMENDATIONS

Sites P-55-000110 and P-55-000719 consist of linear features only partially within the study area and they will not be impacted by proposed Project activities. Sites P-55-000721 and P-55-002367 have been previously recommended not eligible for the NRHP/CRHR and no existing site components will be impacted by proposed Project activities. No recorded features for sites P-55-002367 or P-55-004394 are located within the study area and they will therefore not be impacted by proposed Project activities.

Though no cultural materials were identified within the study area at site P-55-001040 in either 2021 or the current 2022 investigation, the site should be avoided until a formal NRHP/CRHR eligibility evaluation can be completed. As was recommended by ASM in 2021, this avoidance can be accomplished by limiting Project activities solely to the Hetch Hetchy Railroad grade (P-55-000110) which bisects the site. If this is not possible, the site should be entirely avoided.

With the avoidance of site P-55-001040, any proposed future use or development within the 34-ac study area does not have the potential to result in adverse impacts to unique or significant historical resources. A determination of no significant impacts for cultural resources is therefore recommended. It is further recommended that, in the unlikely event that cultural resources are encountered during any construction or use of the study area, an archaeologist be contacted to assess the discovery.

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CONFIDENTIAL APPENDICES