

# ENVIRONMENTAL INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

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Grading Permit 20-0074  
Former Fall River Mills Trap Club Soil Excavation Project  
Pacific Gas and Electric Company

February 5, 2021

ENVIRONMENTAL INITIAL STUDY &  
MITIGATED NEGATIVE DECLARATION  
with  
References and Documentation

Prepared by  
SHASTA COUNTY DEPARTMENT OF RESOURCE MANAGEMENT  
PLANNING DIVISION  
1855 Placer Street, Suite 103  
Redding, California 96001

**SHASTA COUNTY  
ENVIRONMENTAL CHECKLIST FORM  
INITIAL STUDY & MITIGATED NEGATIVE DECLARATION**

1. **Project Title:** Former Fall River Mills Trap Club Soil Excavation Project, Grading Permit 20-0074
2. **Lead Agency Name and Address:**  
Shasta County Department of Resource Management, Planning Division  
1855 Placer Street, Suite 103  
Redding, CA 96001-1759
3. **Contact Person and Phone Number:**  
Tara Petti, Associate Planner, (530) 225-5532
4. **Project Location:** The former Fall River Mills Trap Club is located in the United States Geological Survey (USGS) 7.5-minute Fall River Mills topographic quadrangle, Section 25, Township 35 North, Range 4 East, Mount Diablo Base Meridian (MDBM). The project site is located in the Fall River Mills area of Shasta County, California, approximately 1.2 miles northwest of the intersection of Glenburn Road (Shasta County Route A20) and California Highway 299E (Figure 1). The elevation is approximately 3,300 feet above mean sea level (msl). The project site occupies approximately 4.6 acres of two parcels totaling 435 acres. Assessor's Parcel Numbers: 023-210-009 and 023-210-042.
5. **Applicant Name and Address:**  
Pacific Gas and Electric Company  
34010 Crow Canyon Road  
San Ramon, CA 94583
6. **General Plan Designation:** Rural Residential B (RB)
7. **Zoning:** Unclassified (U) District
8. **Description of Project:** This Initial Study/Mitigated Negative Declaration (IS/MND) evaluates the environmental consequences of the proposed project, from a request by Pacific Gas and Electric Company (PG&E) to execute remedial action at the former Fall River Mills Trap Club to address surface and subsurface contamination associated with the historical operation of the trap club. Environmental investigation activities have been performed at the former trap club on behalf of PG&E, in association with its Land Conservation Commitment (LCC) program. The project site is sparsely vegetated and occupies approximately 4.6 acres of two parcels totaling 435 acres. The project site was used as an outdoor trap shooting range for approximately 50 years from the 1950s to 2004. There is no current use of the project site. A portion of the project site is adjacent to a Federal Energy Regulatory Commission (FERC) license boundary, and the project site is subject to an associated Historical Resource Management Plan. As part of the LCC, the project site will be subject to a conservation easement. Several field investigations have been conducted at the project site, notably in 2010, 2014, 2018, and 2019. During these investigations, more than 650 soil samples were collected and analyzed for lead, polycyclic aromatic hydrocarbons (PAHs), and other analytes. Groundwater was sampled and was not found to be impacted.

The project site is currently a remote fenced field located about 0.25-mile off Glenburn Road. The access road is gated, restricting vehicle access. Features currently present on the project site include a prefabricated building, a gravel parking lot, two trap houses (formerly used to house equipment for throwing the clay targets), and two shooting stations. Targets were thrown from the trap houses in a fan-shaped pattern, and fallout from shooting has been observed "down range" toward the northeast and includes lead shot (pellets), shot-shell debris, and clay target fragments.

This project will remove approximately 2,700 cubic yards of soil containing lead shot and lead-impacted soil over a 3-acre area to a depth of 0.5 to 1.5 feet. Structures at the site are outside the excavation area and would not be affected by project activities. After excavation, the area would be restored to match existing conditions by grading, seeding, and removal of all temporary facilities installed for construction. A stormwater pollution prevention plan (SWPPP) has been developed for the project, which includes the implementation of best management practices (BMPs) and closeout activities to address both construction and post-construction site conditions.

Excavated soils would be transported to offsite waste facilities via truck and potentially via rail. Soils characterized as Resource Conservation and Recovery Act (RCRA) or California hazardous waste would be loaded into covered trucks or loaded into large soft-sided containers called supersacks, which would be sealed, loaded into trucks and covered, and disposed of at US Ecology's Grand View, Idaho, facility. Nonhazardous soil would be loaded into covered bins and transported for disposal to either Waste Management's Anderson Landfill in Anderson, California or Recology's Ostrom Road Landfill in Linda, California. The average number of truck trips per day is expected to be approximately five trips over an 8- to 10-week period. The planned transportation routes to the disposal facilities are primarily located along State highways, interstates, and potentially rail.

Construction-related activities are anticipated to take approximately 13 weeks and would likely result in a temporary, short-term increase in local traffic resulting from construction-related workforce traffic and equipment and material deliveries. Traffic-generating construction activities related to the project would consist of the daily arrival and departure of construction workers to the project site and trucks hauling equipment and materials to the project site.

9. **Surrounding Land Uses and Setting:** The project site is surrounded by Pacific Gas and Electric Company property on all sides. A portion of the site is adjacent to a Federal Energy Regulatory Commission (FERC) license boundary, and the project site is subject to an associated Historical Resource Management Plan.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**  
California Department of Fish and Wildlife  
California Department of Transportation  
Central Valley Regional Water Quality Control Board
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

In accordance with Public Resources Code (PRC) Section 21080.3.1, the Pit River Tribe (Tribe) filed and Shasta County received a request for formal notification of proposed projects within an area of Shasta County that is traditionally and culturally affiliated with the Tribe. Pursuant to PRC §21080.3.1, the Department of Resource Management sent a certified letter on January 11, 2021 to notify the Tribe that the project was under review and to provide the Tribe 30 days from the receipt of the letter to request consultation on the project in writing. To date, no response has been received.

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







**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		Agricultural Resources		Air Quality
	Biological Resources		Cultural Resources		Energy
	Geology & Soils		Greenhouse Gas Emissions		Hazards & Hazardous
	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

**DETERMINATION: (To be completed by the Lead Agency)**

On the basis of the initial evaluation:

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

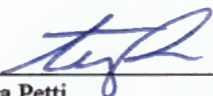
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ 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.

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Department of Resource Management, 1855 Placer Street, Suite 103, Redding, CA 96001. Contact Tara Petti, Associate Planner, at (530) 225-5532.

  
Tara Petti  
Associate Planner

2/5/21  
Date

  
Paul A. Hellman  
Director of Resource Management

2/5/21  
Date

## EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parenthesis following each question. A “No Impact” answer is adequately supported if all the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less-than-significant with mitigation, or less-than-significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more, “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less-than-significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-than-significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section XVIII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures: For effects that are “Less-than-significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. General Plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify the following:
  - a) The significance criteria or threshold, if any, used to evaluate each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less-than-significant.

<b>I. AESTHETICS:</b> Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				X
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 a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

**Discussion:** The existing rural nature of the site is consistent with the rural aesthetic quality of the area. The site is sparsely vegetated and includes a prefabricated building, a gravel parking lot, two trap houses formerly used to house equipment (which has been removed), and two shooting stations. The California Department of Transportation (Caltrans) oversees the California Scenic Highway Program, which recognizes highways that feature natural landscapes. California Highway 299, approximately one mile southeast of the site, has been officially designated a State scenic highway (Caltrans, 2019).

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *NO IMPACT.* After the removal of excavation soils and regrading, the site would retain the existing rural appearance, which is consistent with the rural aesthetic quality of the area. The site is not located within a designated scenic corridor; therefore, the project would not have an impact on a scenic vista.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* The nearest highway is California Highway 299, approximately one mile from the site. The project would not impact the scenic nature of California Highway 299. Therefore, the project would have no impact.

**Mitigation Measures:** No mitigation measures are required.

- c) *LESS-THAN-SIGNIFICANT IMPACT.* The activities at the site consist of clearing vegetation from the site, removal of the top 0.5 to 1.5 feet of soil, grading, and reseeding the site. Given the flat terrain in the surrounding area, once excavation activities are completed and the site is returned to its original condition, the visual character/quality of the area would not be changed. The site would be in keeping with the rural uses and nature of the area in the vicinity of the site. Impacts to the existing visual character of the site would, therefore, be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- d) *NO IMPACT.* The project would not install any structure/feature that would create glare or nighttime light. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Aesthetics* were found to be less-than-significant.



<b>II. AGRICULTURE AND FORESTRY RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or 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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

**Discussion:** The site is located within rural Shasta County and is not identified on the Shasta County Important Farmland 2016 Map. The site is within the "Unclassified" zone district and is designated "Rural Residential B" in the Shasta County General Plan.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determination can be made:

- a) *NO IMPACT.* The site is not mapped or designated by the Farmland Mapping and Monitoring Program (California Department of Conservation, 2016) and is not zoned as Agricultural by Shasta County (County of Shasta, 2004). Therefore, there would be no impact on any agricultural and farming resources.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* No portion of the site is zoned Agriculture, nor is the site under a Williamson Act contract. Therefore, no impact on any agricultural resources is expected.

**Mitigation Measures:** No mitigation measures are required.

- c) *NO IMPACT.* The project would not 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)). The project site is not forest land, timberland or zoned Timberland Production.

**Mitigation Measures:** No mitigation measures are required.

- d) *NO IMPACT.* The project would not result in the loss of forest land or conversion of forest land to non-forest use. The project site is not forest land. In addition, the site is not located in an area of significant agricultural soils.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Agriculture and Forestry Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

**Discussion:** The project site is located within the Northern Sacramento Valley air basin. Air pollutants with national air quality standards, known as “criteria air pollutants,” include ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and particulate matter with aerodynamic diameter equal to or less than 10 micrometers (PM<sub>10</sub>) and 2.5 micrometers (PM<sub>2.5</sub>). Under federal air quality standards, Shasta County is designated as attainment for all criteria pollutants. Under State air quality standards, Shasta County is designated as nonattainment for ozone and PM<sub>10</sub> and is designated as attainment/unclassified for all other pollutants.

The Shasta County Air Quality Management District (District) is responsible for overseeing the air pollution control strategy for regions in four jurisdictions: cities of Anderson, Redding, and Shasta Lake, and the unincorporated areas of Shasta County. Construction activities could generate air pollutants that degrade air quality and increase local human exposure to air contaminants. The District has published guidelines for evaluating, measuring, and mitigating a project’s air quality impacts under the California Environmental Quality Act (CEQA) (County of Shasta, 2003) that uses two levels of thresholds for construction emissions:

- Level A: 25 pounds per day of nitrogen oxide (NO<sub>x</sub>) or volatile organic compounds (VOC), 80 pounds per day of PM<sub>10</sub>
- Level B: 137 pounds per day of NO<sub>x</sub>, VOC, or PM<sub>10</sub>

The District recommends that projects apply Standard Mitigation Measures (SMM) and appropriate Best Available Mitigation Measures (BAMM) when a project exceeds level A thresholds, and that projects apply SMM, BAMM, and special BAMM when a project exceeds level B thresholds. Projects that cannot mitigate emissions to levels below the level B thresholds are considered significant.

Based on related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) *LESS-THAN-SIGNIFICANT IMPACT.* The project would not conflict with or obstruct implementation of the Northern Sacramento Valley Planning Area (NSVPA) 2018 Triennial Air Quality Attainment Plan for Northern Sacramento Valley Air Basin as adopted by Shasta County, or any other applicable air quality plan.

The NSVPA Air Quality Attainment Plan (2018) designates Shasta County as an area of Nonattainment with respect to the ozone California ambient air quality standards. Nitrogen oxides (NO<sub>x</sub>) are a group of highly reactive gasses and are also known as “oxides of nitrogen.” Because NO<sub>x</sub> is an ingredient in the formation of ozone, it is referred to as an ozone precursor. NO<sub>x</sub> is emitted from combustion sources such as cars, trucks and buses, power plants, and off-road equipment. Construction equipment and activities associated with excavation would generate air contaminants, including oxides of nitrogen (NO<sub>x</sub>), reactive organic gases (ROG), carbon dioxide (CO<sub>2</sub>) and particulate matter (PM<sub>10</sub>), in the form of engine exhaust and fugitive dust. However, project-related construction activities are temporary in nature and would only last for 13 weeks. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) based on project schedule and equipment usage. The project’s estimated daily emissions during construction, shown in Table 1, Construction Emissions Summary, are less than the District’s Level 1 emission thresholds.

**Table 1. Construction Emissions Summary**

	ROG lb/day	NO <sub>x</sub> lb/day	CO lb/day	SO <sub>2</sub> lb/day	PM <sub>10</sub> lb/day	PM <sub>2.5</sub> lb/day
Construction Emissions	2.54	24.82	19.11	0.04	18.07	6.21

ROG = reactive organic gas

The project would be constructed in compliance with the District’s regulations, and best management practices (BMPs) would be implemented to reduce criteria pollutant emissions to comply with the District’s SMM and BAMM requirements. Operation of the project would not cause emission increases compared to the existing conditions. The project site would be returned to its original

rural state and would not generate additional emissions within the project area once construction is completed.

Project activities would not conflict with any applicable air quality plans because estimated construction emissions would be less than the applicable construction-related thresholds established by the District, and the project would implement BMPs to minimize emissions. Therefore, air quality impacts from the project would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- b) *LESS-THAN-SIGNIFICANT IMPACT.* The project is in nonattainment for ozone and PM10 under State air quality standards. Constructing the project would temporarily increase ambient air pollutant concentrations through tailpipe emissions from construction equipment and vehicles and fugitive dust emissions due to earthmoving activities and vehicle travel. These emissions would only occur during construction and would be eliminated once construction is completed. The project's average daily emissions, shown in Table 1, Construction Emissions Summary, are less than the District's Level 1 significance thresholds. Construction emissions would be further reduced with implementation of BMPs. There would be no post-construction emissions. Therefore, project emissions would not result in a cumulatively considerable net increase of any criteria air pollutant. The project would have a less-than-significant impact on air quality and would not violate any air quality standard.

**Best Management Practices**

Construction emission control measures would include, but not be limited to, the following:

- Water all exposed surfaces that would be disturbed during construction, such as soil piles, graded areas, unpaved parking area, staging areas, and access roads, two times daily, as needed to minimize fugitive dust emissions.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once a day, as necessary. Dry power sweepers are prohibited.
- Limit all vehicle speeds on unpaved roads to 15 miles per hour.
- Minimize idling times either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage would be provided for construction workers at access points.
- Maintain all construction equipment in accordance with the manufacturer's specifications. All equipment would be checked by a certified mechanic and determined to be in proper condition prior to operation.

**Mitigation Measures:** No mitigation measures are required

- c) *LESS-THAN-SIGNIFICANT IMPACT.* The project is located in a rural area that does not have highly populated residential areas or other sensitive receptors. Sensitive receptors in the project vicinity include Fall River Elementary School, which is approximately 1 mile southwest of the project site. Although residential areas are located approximately 0.40 miles northwest and 1 mile southwest of the project site, construction activities would be temporary and limited to the area where construction equipment would operate. Construction emissions from the project would be below the District's significance thresholds for criteria air pollutants and their precursors. In addition, during construction, BMPs listed above would be implemented. These measures would minimize exposure of nearby sensitive and residential receptors to construction-related pollutants. Therefore, during project construction, residences and other sensitive receptor locations could have limited short-term exposure to emissions from the construction activities. Once the construction is complete, the site would continue its current use as an open space, and the project would not generate additional emissions in the project area. As such, the project would not cause long-term exposure of sensitive receptors to air pollutants. The project impacts would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- d) *LESS-THAN-SIGNIFICANT IMPACT.* Diesel construction equipment may generate minor odorous emissions during construction activity. However, such emissions would be localized to the immediate area during construction and would be short in duration. Construction emissions would be temporary and would not create objectionable odors affecting a substantial number of people. Therefore, odor impacts would be less than significant.

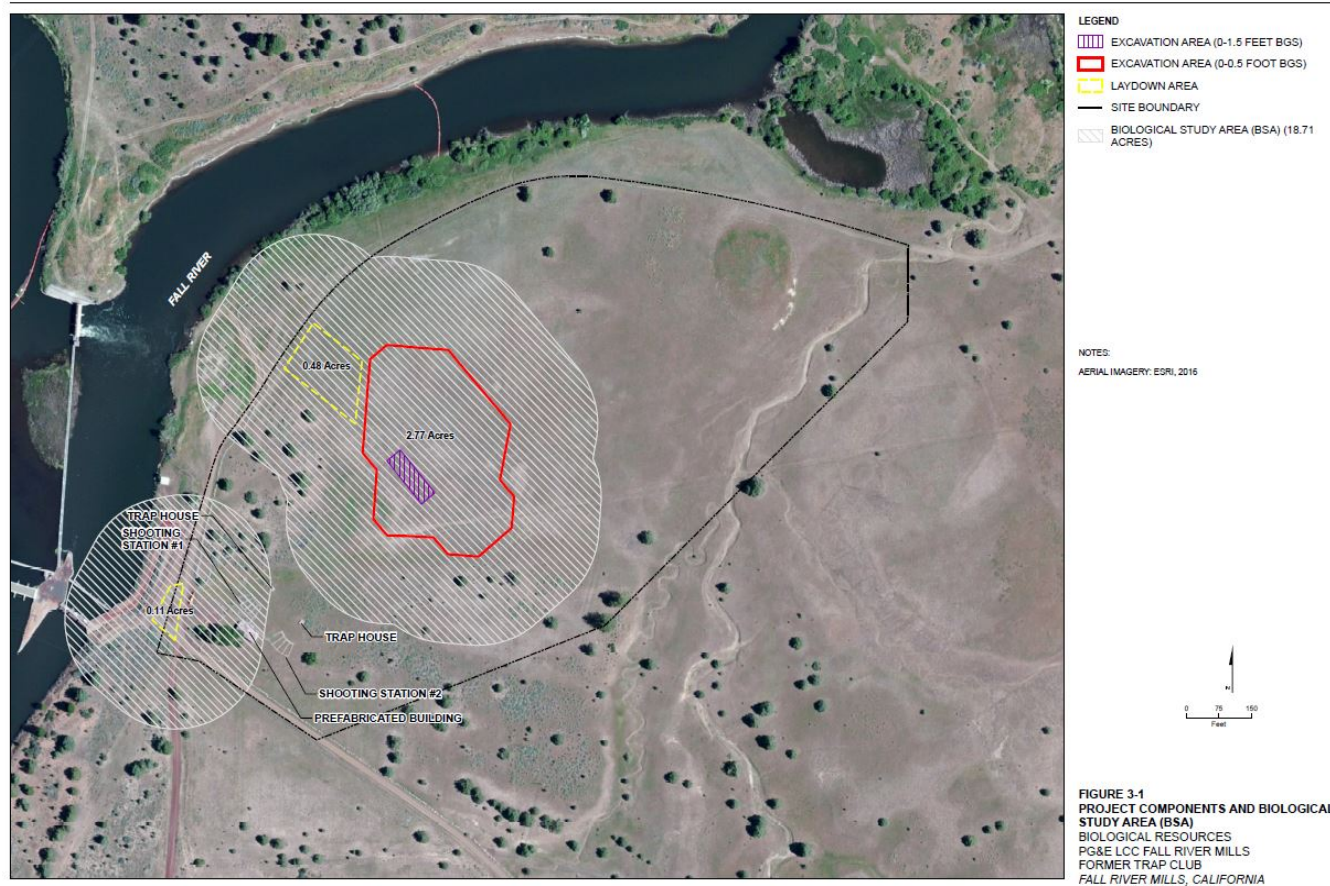
**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Air Quality* were found to be less-than-significant.

<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plan?				X

**Discussion:** This section describes biological resources (vegetation, fish, wildlife, habitat, and wetlands) in the biological study area (BSA), identifies potential impacts on sensitive biological resources that could result from implementation of the project, and concludes that impacts on biological resources would be less than significant. The project footprint is defined as the areas that may be directly affected by the proposed project and represents the maximum extent of ground-disturbing activities (soil excavation and staging). The BSA covers approximately 18.6 acres and consists of a 200-foot radius buffer around the project footprint and includes work areas and adjacent jurisdictional waters of the United States that extend past the 200-foot radius buffer. Incorporation of the Applicant Proposed Measures (APMs) described in the impact analysis below would further minimize the less-than-significant potential project impacts on biological resources. The project's potential effects on biological resources were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines. Figure 3 identifies project components and the BSA for the project.





**Figure 3. Project Components and Biological Study Area (BSA)**

## Methodology

This section summarizes the methods used to identify biological resources and analyze potential impacts, including waters, wetlands, and special-status plants and wildlife.

As used here, the term “special-status species” is defined as including plants and animals meeting the criteria defined below.

Special-status plants include species that meet one or more of the following criteria:

- Listed, proposed for listing, or candidate for listing, as threatened or endangered under the federal ESA (FESA; 50 CFR 17.11 for wildlife; 50 CFR 17.12 for plants; 67 Federal Register 40658 for candidates) and various notices in the *Federal Register* for proposed species).
- Listed under the CESA as threatened or endangered, or proposed or candidates for listing.
- Designated as rare under the Native Plant Protection Act.
- Species that otherwise meet the definition of rare, threatened, or endangered species under CEQA Guidelines section 15380. This includes species listed by the California Native Plant Society (CNPS) in the online version of its *Inventory of Rare and Endangered Plants of California* (CNPS, 2020) as List 1A, 1B, 2A, or 2B.

Special-status wildlife includes species that meet one or more of the following criteria:

- Listed, proposed for listing, or candidate for listing as threatened or endangered under the federal ESA.
- Listed or candidates for listing as threatened or endangered under CESA.
- Designated as Species of Special Concern or a Fully Protected Species by CDFW.
- Species that otherwise meet the definition of rare, threatened, or endangered species under CEQA Guidelines section 15380.

Natural communities are considered to be special-status if they are identified on the CDFW List of Vegetation Alliances and Associations as being highly imperiled, also classified by CDFW as ranks S1 to S3 in the California Natural Diversity Database

(CNDDDB; CDFW, 2020) and natural communities of special concern.

## Database and Literature Review

The following biological databases were queried for records of special-status plants, natural communities, and wildlife that might have potential to occur in the project footprint:

- USFWS list of federally listed and proposed endangered, threatened, and candidate species and their designated critical habitat (USFWS, 2020a; USFWS, 2020b)
- CNPS online Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2020)
- California Natural Diversity Database (CNDDDB; CDFW, 2020)

The CNDDDB database search for special-status species included the Fall River Mills U.S. Geological Survey (USGS) 7.5-minute quadrangle and the surrounding eight quadrangles including the East of Pondosa, Timbered Crater, Day, Pittville, Coble Mountain, Hogback Ridge, Cassel, and Dana quadrangles. The CNDDDB database search also included a query for documented occurrences within a 2-mile radius of the project footprint.

The CNPS online inventory was also queried for the aforementioned quadrangles.

Other information sources consulted to determine which special-status species could potentially occur in the project footprint included:

- Prior biological surveys performed at the site
- Natural Resources Conservation Service (NRCS) Web Soil Survey was used to obtain information about soils in the BSA (NRCS, 2020)
- Pacific Gas and Electric Company's Multiple Region Habitat Conservation Plan (MRHCP) (ICF, 2020)
- Aerial photographs

## Field Surveys

Two biological surveys were completed, one in 2016, and one in 2018, to identify special-status species located and sensitive habitats that may be present in and around the project site. The project footprint has sparse vegetation characterized by low growing grasses and forbs, with scattered juniper (*Juniperus* sp.) trees.

The on-site biological review performed in 2016 identified that special-status species including nesting birds, American badger (*Taxidea taxus*), and western pond turtle (*Emys marmorata*) have the potential to occur at the project site. However, these species have a low potential for occurrence due to low-quality habitat and lack of suitable burrows for American badger and were not observed at the project site. Nesting birds have been observed in the vicinity of the project footprint, including House wren (*Troglodytes aedon*), titmouse (*Baeolophus* sp.), and red-tailed hawk (*Buteo jamaicensis*). Tehama pincushion (*Navarretia heterandra*) was also determined to have potential to occur within the BSA. The Tehama pincushion is not a federal or State listed species and is listed on the CNPS inventory with a rank of 4.3, which means the species is of limited distribution but not very threatened in California. There is a prefabricated building within the BSA, but outside of the project footprint and within this building, bat guano was observed, and a small bat was observed but not positively identified.

A follow up pedestrian survey was conducted on August 6, 2018 and included a survey for nesting birds and special-status species. Potentially suitable nesting trees (primarily juniper trees) occur in the project footprint. During the survey, the biologist searched for nesting birds by looking for nests, new nests under construction, birds carrying materials or food, distraction displays, and other physical or behavioral evidence of nesting. The pedestrian survey also included a survey for potential nest sites of western pond turtles, denning sites of American badgers, and the presence of Tehama pincushion in and adjacent to the project site. The prefabricated building was not inspected for presence of bats because the building would not be affected by project construction activities. No burrows or den sites suitable for American badger, western pond turtle nest sites, nesting birds, or signs of other special-status wildlife species within the project footprint and BSA were observed. Small populations of Tehama pincushion were found on the southern portion of the project footprint while isolated individuals were observed on the western portion of the project footprint.

No wetlands or other sensitive habitats were observed within the project footprint, but a portion of the Fall River is within the BSA.

## Likelihood of Presence for Special-Status Species

Using the information generated from literature reviews and field surveys, the list of special-status species with the potential to occur was further refined to reflect the species that may occur within the project footprint or be affected by project activities if occurring outside of the project footprint. The likelihood of special-status species occurrence was determined based on natural history parameters, including but not limited to, the species' range, habitat, foraging needs, migration routes, and reproductive requirements, using the following general categories:

*Present* – Reconnaissance-level, focused, or protocol-level surveys documented the occurrence or observation of a species in the project footprint.

*Seasonally present* – Individuals were observed in the project footprint only during certain times of the year.

*Likely to occur (on site, or offsite where the species may be affected by the project (e.g., from noise, dust, lighting, hydrological modifications, etc.))* – The species has a strong likelihood to be found in the project footprint or offsite and potentially subject to project impacts prior to or during construction but has not been directly observed to date during project surveys. The likelihood that a species may occur is based on the following considerations: suitable habitat that meets the life history requirements of the species is present on or near the project footprint; migration routes or corridors are near or within the project footprint; records of sighting are documented on or near the project footprint; and there is an absence of invasive predators (e.g., bullfrogs). The main assumption is that records of occurrence have been documented within or near the project footprint, the project footprint falls within the range of the species, suitable habitat is present, but it is undetermined whether the habitat is currently occupied.

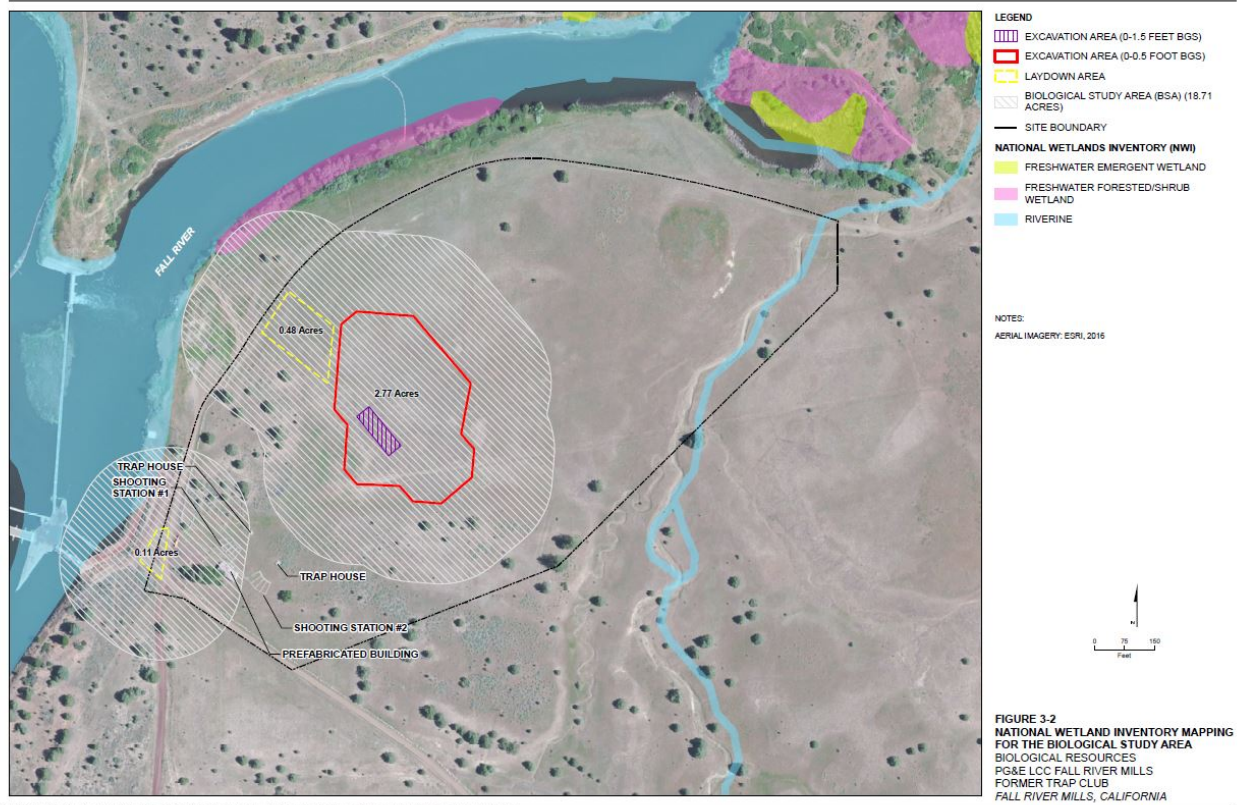
*Potential to occur* – There is a possibility that the species can be found in the project footprint or offsite and potentially subject to project impacts prior to or during construction but has not been directly observed to date. The likelihood that a species may occur is based on the following conditions: suitable habitat that meets the life history requirements of the species is present on or near the project footprint; migration routes or corridors are near or within the project footprint; and there is an absence of invasive predators (e.g., bullfrogs). The main assumption is that the project footprint falls within the range of the species, suitable habitat is present, but no records of sighting are located within or near the project footprint and it is undetermined whether the habitat is currently occupied.

*Unlikely to occur* – The species is not likely to occur in the project footprint or offsite and potentially subject to project impacts based on the following considerations: lack of suitable habitat and features that are required to satisfy the life history requirements of the species (e.g., absence of foraging habitat; lack of reproductive areas, and lack of sheltering areas); presence of barriers to migration/dispersal; presence of predators or invasive species that inhibit survival or occupation (e.g., the presence of bullfrogs or invasive fishes); lack of hibernacula, hibernation areas, or estivation areas on site.

*Absent* – Suitable habitat does not exist in the project footprint or offsite and potentially subject to project impacts the species is restricted to or known to be present only within a specific area outside of the project footprint or focused or protocol-level surveys did not detect the species.

## Wetlands and Other Waters

There are no federal or State protected wetlands within the project footprint. Desktop reviews were conducted for areas that were outside of the project footprint but within the BSA using the National Wetlands Inventory, National Hydrography Dataset, California Aquatic Resource Inventory mapping, and review of current and historic aerial imagery (USFWS, 2020c; USGS, 2020; SFEI, 2020). Figure 4 shows the aquatic resources within the BSA.



**Figure 4. National Wetland Inventory Mapping for the Biological Study Area**

### Special-Status Species

This section describes special-status species that have the potential to occur within the BSA. No special-status species were determined to be present, seasonally present, or likely to occur. Special-status species that are unlikely to be found in the project footprint or otherwise be affected by the project are not discussed in this section and are included in Appendix A.

The CNDDDB, USFWS, and CNPS database searches identified 39 special-status species within the vicinity of the project, including 16 special-status plant species and 23 special-status wildlife species (Appendix A).

### Special-Status Plant Species

Sixteen special-status plant species were identified in the CNDDDB, USFWS, and CNPS records searches. However, only one species; watershield (*Brasenia schreberi*) has the potential to occur within the BSA due to the presence of potentially suitable habitat and known occurrences. This species is described in further detail in Table 2. Neither this species nor other special-status plant species were observed or detected in the project footprint during the 2016 or 2018 surveys. The remaining species identified from the database queries were determined unlikely to occur or absent because the BSA lacks suitable habitat, and they were not observed during biological surveys.



**Table 2. Special-Status Plant Species**

Scientific Name/ Common Name	Status <sup>a</sup>			Habitat	Blooming Period	Potential for Occurrence within the BSA
	Federal	State	CNPS			
Brasenia schreberi/watershield	-	-	2B.3	Marshes and swamps (freshwater)	June-Sept.	<b>Potential to occur.</b> There is suitable wetland habitat within the BSA associated with the fringe of the Fall River; however, no suitable habitat is present within the project footprint. There is one CNDDDB occurrence within 2 miles of the BSA.

Sources: CDFW, 2020; CNPS, 2020a.

<sup>a</sup> Status designations are as follows:

CNPS California Rare Plant Rank (CRPR): (2B) Rare, threatened, or endangered in California, but more common elsewhere

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

### Watershield

Watershield is a CNPS 2B.3 aquatic plant that blooms from June through September. It is native to California and can be found at elevations between 100 and 7,200 feet within freshwater marshes and swamps.

There is potential for this species to occur within the BSA as there is suitable wetland habitat within the BSA associated with the fringe of Fall River; however, no suitable habitat is present within the project footprint as there are no wetlands or waters within it. There is one CNDDDB occurrence within 2 miles of the BSA. This species was not observed during biological surveys.

### Special-Status Wildlife Species

Twenty-three special-status wildlife species were identified in the records search. However, only nine of the 23 species were identified to have potential to occur in the BSA. These species are described further in Table 3 and in the section below.

**Table 3. Special-Status Wildlife Species**

Scientific Name/Common Name	Status <sup>a</sup>			Habitat	Potential for Occurrence within the BSA
	Federal	State	CDFW		
Pacifastacus fortis/Shasta crayfish	E	E	-	Found only in the Fall and Hat creek sub-drainages of the Pit River system. Inhabits cool, clear water with low gradient and temperature variability; substrate is volcanic rubble on sand/gravel; prefers areas with little vegetation.	<b>Potential to occur.</b> There is suitable habitat within the Fall River; however, there is no suitable habitat within the project footprint. There is a CNDDDB occurrence in Fall River approximately 1.5 miles away from the project area.
Cottus asperimus/rough sculpin	-	T	FP	Restricted to the Pit River above and below the falls at Burney, and the Hat Creek and Fall River sub drainages. Found mostly on the muddy bottoms of large streams.	<b>Potential to occur.</b> There is suitable habitat within the Fall River within the BSA; however, there is no suitable habitat within the project footprint. There are

**Table 3. Special-Status Wildlife Species**

Scientific Name/Common Name	Status <sup>a</sup>			Habitat	Potential for Occurrence within the BSA
	Federal	State	CDFW		
					two CNDDB occurrences within 2 miles of the BSA.
Cottus klamathensis macrops/bigeye marbled sculpin	-	-	SSC	Found in the Pit River system and three tributaries: Hat Creek, Burney Creek, and the Fall River system. Inhabits large, clear, cool spring-fed streams but is sometimes found in reservoirs. Prefers abundant vegetation and coarse substrates.	<b>Potential to occur.</b> There is suitable habitat within the Fall River within the BSA; however, there is no suitable habitat within the project footprint. There is one CNDDB occurrence within 2 miles of the BSA.
Lavinia symmetricus mitrulus/Pit roach	-	-	SSC	Found in the upper Pit River and its tributaries, and tributaries to Goose Lake. Inhabits deep pools but is also in areas of low flows, moderate gradients, warm temperatures, and mats of vegetation.	<b>Potential to occur.</b> There is suitable habitat within the Fall River within the BSA; however, there is no suitable habitat within the project footprint. There are no CNDDB occurrences within 2 miles of the BSA.
Mylopharodon conocephalus/hardhead	-	-	SSC	Found in low- to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Inhabits clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	<b>Potential to occur.</b> There is suitable habitat within the Fall River within the BSA; however, there is no suitable habitat within the project footprint. There is one CNDDB occurrence within 2 miles of the BSA.
Emys marmorata/western pond turtle	-	-	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet in elevation.	<b>Potential to occur.</b> There is suitable habitat within and surrounding the Fall River within the BSA. There is one CNDDB occurrence within 2 miles of the BSA.
Agelaius tricolor/tricolored blackbird	-	T	SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Gregarious year-long resident of California's Central Valley and southern and central coast with limited distribution. Prefers to nest in large freshwater marshes with dense stands of cattails and rushes but will also build nests concealed in vegetation in grasslands and agricultural pastures near freshwater. Breeding may occur in spring and fall. Feeds mainly on insects and seeds, foraging in open habitats, such as agricultural fields, wetlands, and grasslands.	<b>Potential to occur.</b> There are potentially suitable nesting sites within vegetation near the Fall River. Suitable foraging habitat within the BSA includes wetland and grassland habitat. There are no CNDDB occurrences within 2 miles of the BSA, but there are multiple CNDDB occurrences along the Fall River north of the BSA within 10 miles.
Corynorhinus townsendii/Townsend's	-	-	SSC	Occurs throughout much of the western U.S., except alpine and sub-alpine	<b>Potential to occur.</b> Marginally suitable habitat is present within

**Table 3. Special-Status Wildlife Species**

Scientific Name/Common Name	Status <sup>a</sup>			Habitat	Potential for Occurrence within the BSA
	Federal	State	CDFW		
big-eared bat				habitats. Requires large cavities for roosting, including basal tree cavities, caves, mines, tunnels, buildings, or other human-made structures; hibernation roosts are in similar locations. In summer, females form maternity colonies to raise pups, while males are generally solitary. Hibernates in tight clusters in winter. Nocturnal predator of insects, especially (and potentially almost exclusively) moths. Prefers mesic habitats.	the prefabricated building within the BSA, but there is no suitable roosting habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
Taxidea taxus/American badger	-	-	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents.	<b>Potential to occur.</b> There is suitable habitat present in the BSA. There is one CNDDDB occurrence within 2 miles of the BSA.

Sources: CDFW, 2020; USFWS, 2020a.

<sup>a</sup>Status designations are as follows:

Federal Designations: (E) Federally Endangered

State Designations: (E) State Endangered, (T) State Threatened

CDFW Designations: (SSC) Species of Special Concern, (FP) Fully Protected

### Shasta Crayfish, Rough Sculpin, Bigeye Marbled Sculpin, Pit Roach, Hardhead

These solely aquatic species all have potential to occur within the portion of the BSA that overlaps with the Fall River; however, there is no suitable habitat within the project footprint for any of these species, and they would not be impacted by project activities.

### Western Pond Turtle

The western pond turtle is a CDFW SSC. Western pond turtle occurs in both permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes. It favors habitats with large numbers of emergent logs or boulders where individuals aggregate to bask. They also bask on top of aquatic vegetation. Females of the western pond turtle produce 5 to 13 eggs per clutch, once or twice a year. They may travel from water for egg-laying. Most nests are within 300 feet (90 meters) of water but may use upland habitats up to 1,640 feet (500 meters) from aquatic habitat for overwintering and nesting (Rhodin et al., 2010; Pilliod et al., 2011).

The Fall River and adjacent upland habitat within the BSA provide suitable habitat for the western pond turtle and it has potential to occur. There is one CNDDDB occurrence within 2 miles of the BSA.

### Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is Threatened under CESA and is a CDFW SSC. They nest in wetlands, triticale fields, near stock ponds, and irrigated pastures. Foraging habitats include cultivated fields, feedlots associated with dairy farms, and wetlands. They now nest almost exclusively in triticale fields, especially those with invasive mustard or mallow plants. Females select the nesting site within a male's territory, typically close to freshwater with plenty of concealing vegetation. Females build nests in vegetation from just above ground level up to about 8 feet. Tricolored blackbirds typically have a 3-4 egg clutch size and 1-2 broods each breeding season. They form dense breeding colonies and defend only their nesting patch (Beedy et al., 2017).

Although no documented occurrences for the tricolored blackbird are reported within the BSA, potentially suitable foraging habitat may be located in or adjacent to work areas with proximity to wetland habitat and grasslands. Suitable nesting habitat is present in vegetation

near the Fall River.

### **Townsend's Big-Eared Bat**

Townsend's big-eared bat (*Corynorhinus townsendii*) is a CDFW SSC. This species occupies a variety of habitats, from arid deserts to grasslands, conifer forests, and riparian areas. Although roosts (including day, night, and maternity roosts) typically are in rock crevices and cliffs. Day roosts also can be found in tree hollows and caves. In more urban settings, roosts frequently are associated with human structures, such as abandoned buildings, abandoned mines, and bridges. Overwintering roosts require relatively cool and stable temperatures, out of direct sunlight. While once considered common, this species is particularly sensitive to the degradation or loss of roosting sites (Zeiner et. al., 1988–1990).

Roosting may occur within the prefabricated building within the BSA, but there is no suitable roosting habitat within the project footprint, and the prefabricated building would not be impacted by project activities. There are no CNDDDB occurrences within 2 miles of the BSA.

### **American Badger**

American badger is a CDFW SSC. This species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. American badgers need sufficient food, friable soils, and open, uncultivated ground. This species preys on burrowing rodents.

There is potential for this species to occur within the BSA and project footprint as there is suitable habitat present; however, no suitable burrow or denning sites were observed during field surveys. There is one CNDDDB occurrence within 2 miles of the BSA.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) *Less-Than-Significant Impact.* As described below, the project would have a less than significant impact to any candidate, sensitive, or special-status species populations.

### **Special-Status Plant Species**

Special-status plants can be damaged or destroyed as a result of vegetation removal or trimming activities before construction by project vehicles traveling on access roads and/or by staging project vehicles and equipment in construction work areas. Special-status plants also can be indirectly affected by soil compaction and the spread of nonnative invasive species from project vehicles and equipment travel and staging.

While watershed was determined to have the potential to occur within the BSA, it was not observed during biological surveys, and there is no suitable habitat for the species within the project footprint. As such, this species is not expected to be present or impacted during project activities. Similarly, there is not suitable habitat for other special-status plant species identified in the records searches within the project footprint.

### **Special-Status Animal Species**

#### Shasta crayfish, rough sculpin, bigeye marbled sculpin, Pit roach, hardhead

These species have potential to occur in aquatic habitat within the Fall River in the BSA; however, this habitat is not within the project footprint (Figure 3). Project activities would not impact aquatic habitats; and therefore, there would be no impacts to these species.

#### Western pond turtle

Western pond turtle has potential to occur in wetlands in the vicinity of the BSA and along the Fall River and may also be present in adjacent upland areas. All potentially suitable aquatic habitats for this species would be avoided; however, due to the known dispersal distances for these species, they could potentially occur within non-developed upland portions of the project footprint. Soil excavation and movement of heavy equipment has the greatest potential to impact suitable upland dispersal habitat and this species.

With implementation of the Applicant Proposed Measures (APMs) listed at the end of this section, potential impacts to this species and their habitats would be less than significant. These measures include worker environmental awareness training, limiting disturbance to the project footprint, restricting vehicle speeds in unpaved areas, installation of escape ramps in excavations as necessary if excavations are steep-sided, avoidance of aquatic resources, and habitat restoration measures.

#### Tricolored blackbird and other migratory birds



The vicinity of the project footprint is suitable foraging habitat for tricolored blackbird, and there is suitable nesting habitat in the vicinity of the BSA for this species. Project activities have the potential to impact nesting individuals of these and other species protected under the MBTA. This could cause nest abandonment and may temporarily degrade foraging habitat. With implementation of APM BIO-FP-18, pre-construction nesting bird surveys would be conducted prior to project activities if they were to occur during the nesting bird season. With implementation of this measure, impacts to nesting tricolored blackbird and other nesting birds are not expected. Given the limited size of the project footprint relative to adjacent areas and disturbed nature of this site, the temporary loss of foraging habitat is not expected to adversely affect this or other bird species.

#### Townsend's big-eared bat

Townsend's big-eared bat has potential to roost in the prefabricated building within the BSA; however, there is not suitable roosting habitat for this species within the project footprint and the prefabricated building would not be disturbed, so impacts to this species are not expected.

#### American badger

American badger has potential to occur within the BSA; however, there is a low potential for occurrence because of low-quality habitat onsite. With implementation of the APMs, potential impacts to this species would be minimized. These APMs include worker environmental awareness training, limiting disturbance to the project footprint, restricting vehicle speeds in unpaved areas, installation of escape ramps in excavations, as necessary, if excavations are steep-sided, and habitat restoration measures.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* Construction of the project would not result in disturbances of any riparian habitat or other sensitive natural community. The project site is dominated by low grasses and forbs and a few juniper trees; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- c) *NO IMPACT.* There are no federal or State protected wetlands within the project footprint (Figure 3-2); therefore, there would be no impact. No work would occur near or within the Fall River and the project site would be stabilized and restored, which would ensure that no sediment enters the water.

**Mitigation Measures:** No mitigation measures are required

- d) *NO IMPACT.* There are no native wildlife nursery sites within the project footprint or BSA that would be disturbed by project activities. Similarly, given the limited size and disturbed nature of the project footprint, project activities are not anticipated to impact movement of any species through the area. Therefore, there would be no impact on movement of native resident or migratory species, and the project would not impede the use of native wildlife nursery areas.

**Mitigation Measures:** No mitigation measures are required

- e) *NO IMPACT.* The project does not conflict with any local policies or ordinances that protect biological resources, and there would be no tree removals associated with the work. Therefore, there would be no impact or conflicts with local policies or ordinances.

**Mitigation Measures:** No mitigation measures are required

- f) *NO IMPACT.* The project is located within the boundaries of the PG&E MRHCP, but this project is not an activity that is covered under this document. However, for consistency across the region and PG&E projects, applicable measures from the MRHCP have been incorporated into this project. There are no other HCPs or Natural Community Conservation Plans that overlap with the project footprint; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

#### **Applicant-Proposed Measures**

While this project is not a covered activity under the PG&E MRHCP, the document was reviewed, and applicable field protocols (FP) from this document would be implemented for consistency across projects in the region. PG&E would implement the following Applicant Proposed Measures (APMs).

APM BIO-FP-01: Conduct annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work. Tailboard and site-specific training would also be conducted prior to commencing work.

APM BIO-FP-02: Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, and compacted dirt).

APM BIO-FP-03: Use existing access and rights of way (ROW) roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.

APM BIO-FP-04: Route off-road access paths and site work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops).

APM BIO-FP-06: Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered.

APM BIO-FP-07: Vehicle speeds on unpaved roads would not exceed 15 miles per hour.

APM BIO-FP-08: Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.

APM BIO-FP-09: In designated State Responsibility Areas, equip all motorized equipment with federally or state-approved spark arrestors. Ensure a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens is onsite during welding. During fire “red flag” conditions as determined by the California Department of Forestry and Fire Protection, prohibit welding. Each fuel truck would carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials.

APM BIO-FP-10: Minimize the activity footprint and minimize the amount of time spent at a work location to reduce the potential for take of species.

APM BIO-FP-11: Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E’s Stormwater Field Manual for Construction Best Management Practices) to prevent construction site runoff into waterways.

APM BIO-FP-12: Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events.

APM BIO-FP-13: Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at an angle of no more than 45 degrees each end if left open overnight. Field crews would search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews would not handle covered species. If any covered wildlife species is found, work would stop and a biologist would be notified. A biologist with appropriate take permits would relocate the species to adjacent habitat or the species would be allowed to naturally disperse, as determined by a biologist.

APM BIO-FP-14: If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew would revegetate the area with a native “weed free” seed mix. (Except in suitable habitat for Mount Hermon June beetle, Ohlone tiger beetle and Zyante band-winged grasshopper.)

APM BIO-FP-15: Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.

APM BIO-FP-16: Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the HCP administrator to minimize impacts such as flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity.

APM BIO-FP-17: Removal of trees is not anticipated within the project area. If removal of a tree is needed, directionally fall trees away from an exclusion zone, if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter.

APM BIO-FP-18: Nests with eggs and/or chicks would be avoided: contact a biologist or the Avian Protection Program Manager for further guidance. Work would be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed.

**Findings:** In the course of the above evaluation, impacts associated with *Biological Resources* were found to be less-than-significant with the implementation of Applicant Proposed Measures 1-18.

<b>V. CULTURAL RESOURCES:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

**Discussion:** The analysis in this section has been prepared in accordance with Section 15064.5 of the State CEQA Guidelines, which considers the potential impacts on prehistoric, historic, and paleontological resources. Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) **LESS-THAN-SIGNIFICANT IMPACT:** PG&E has an agreement with the California Office of Historic Preservation and receives annual updates of California Historical Resources Information System (CHRIS) record search data. The last update was in October 2020. PG&E incorporates the CHRIS annual updates into its own database, as well as Shasta County Historic Landmark listings; Historic Districts, and Structures of Merit listings; National Register of Historic Places (NRHP) online database; and information available on the California Office of Historic Preservation.

The last review of PG&E's cultural database was on December 21, 2020. A 0.25-mile radius around the project area was examined for cultural resources, including historic and archaeological resources. The project area is adjacent to the Pit 1 Diversion Dam and Pit 1 River Gatehouse 1, 2, 3, which are components of the Pit 1 Power Plant District (P-45-005089). These built features are outside the project area. Within archaeological resource area CA-SHA-70/H there is a former trap club clubhouse. This resource would be avoided during the project; therefore, the project would have a less-than significant impact to historical resources pursuant to §15064.5.

**Mitigation Measures:** No mitigation measures are required.

- b) **LESS-THAN-SIGNIFICANT WITH MITIGATION INCORPORATED:** The project area was originally surveyed during the Pit 1 Hydroelectric Project (FERC Project No. 2687). Multiple times each year for the last several years, the project area was resurveyed during site monitoring efforts as a condition of the FERC license. This is conducted by a qualified archaeologist and a tribal monitor appointed by the Pit River Tribe.

There are two resources within the immediate vicinity. One archaeological resource is within the project area (CA-SHA-70/H), and one archaeological resource is outside the project area (CA-SHA-1940). No excavation would occur within either of these resources. Within CA-SHA-70/H, only surface collection of clay target fragments would be conducted by hand. This activity would be monitored by a qualified archaeologist, and a tribal monitor would be invited to observe the removal activity. This activity would not cause any damage to the resource.

**Mitigation Measures:** The following mitigation measures have been developed to reduce potential impacts related to undocumented cultural resources to less-than-significant levels:

**Mitigation Measure (MM) V.b.1:** In the event that an archaeological resource is encountered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped. A qualified archaeologist shall remain on-call during the course of the project and immediately examine the find. If the find appears significant, the archaeologists shall record the resource on Department of Parks and Recreation 523 Primary Record forms. In the event the resource cannot be avoided in order to complete the project, the archaeologist shall make a recommendation regarding eligibility for the California Register of Historical Resources, data recovery, curation, or other appropriate mitigation. Ground disturbance within the 50-foot radius can resume once these steps are taken. Therefore, the project would have no significant impacts to archaeological resources pursuant to §15064.5, provided these mitigation measures (if needed) are taken.

**Mitigation Measure (MM) V.b.2:** During the course of construction, if an alternative methodology is proposed for collecting clay target fragments within the boundary of CA-SHA-70/H, the alternative methodology must be approved by a qualified archaeologist and submitted to the Shasta County Department of Resource Management to determine if additional environmental review will be required.

- c) **LESS-THAN-SIGNIFICANT IMPACT:** One instance of possible human remains is reported within CA-SHA-70/H. According to Pit River Tribal members who monitored excavation testing within the site, human remains may be present buried beneath the surface; only hand collection of clay target fragments would be conducted on the surface within CA-SHA-70/H, and this activity would be monitored by a qualified archaeologist. A tribal monitor would be invited to observe the removal activity.

The project excavation area is located between CA-SHA-70/H and CA-SHA-1940 and is within a lower lying floodplain. While this floodplain is covered in silt and has the potential to bury cultural resources, there is a low probability of encountering human remains during the project.

Pursuant to California Health and Safety Code Section 7050.5, 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 until the coroner has determined if the remains are subject to his or her authority. If the coroner determines that human remains are not subject to his or her authority and recognizes or has reason to believe the remains to be those of a Native American, he or she shall contact the NAHC within 24 hours.

**Findings:** In the course of the above evaluation, impacts associated with *Cultural Resources* were found to be less-than-significant with the implementation of the mitigation measures.

<b>VI. ENERGY:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) **LESS-THAN-SIGNIFICANT IMPACT.** Excavation activities at the site would require using nonrenewable energy resources. The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction. During construction, there would be a temporary consumption of energy resources primarily fossil fuels (oil, gasoline, and diesel) required for construction equipment. Construction activities are anticipated to take approximately 13 weeks, including site preparation, excavation activities, and site closure and demobilization activities. Compliance with local, State, and federal regulations (e.g., limit engine idling times, requirement for the recycling of construction debris, etc.) would reduce and/or minimize short-term energy demand during the project's construction to the extent feasible, and project construction would not result in a wasteful or inefficient use of energy.

**Mitigation Measures:** No mitigation measures are required.

- b) **NO IMPACT.** The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. State and local agencies regulate the use and consumption of energy through various methods and programs. As a result of the passage of Assembly Bill 32 (AB 32) (the California Global Warming Solutions Act of 2006) which seeks to reduce the effects of Greenhouse Gas (GHG) Emissions, a majority of the state regulations are intended to reduce energy use and GHG emissions. At the local level, the County's Building Division enforces the applicable requirements of the Energy Efficiency Standards and Green Building Standards in Title 24. The site would not require further energy resources after the completion of soil remediation, site closure and demobilization, it will be preserved as open space under a conservation easement. Construction workers would also be sourced locally or would be traveling from locally provided temporary residences, which would further minimize energy used associated with transportation.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Energy* were found to be less-than-significant.

<b>VII. GEOLOGY AND SOILS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>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 Publications 42.</li> <li>ii) Strong seismic ground shaking?</li> <li>iii) Seismic-related ground failure, including liquefaction?</li> <li>iv) Landslides?</li> </ul>				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

**Discussion:** According to the United States Department of Agriculture (USDA) Web Soil Survey, surface soils across the project area consist of brown silts, while underlying geology consists of an alluvium derived from igneous rock. Soils in the northern end of the project site are characterized as the Dugden-Graven complex, a moderately well drained matrix found on stream terraces. Soils at the southern end of the project site are described as the Jellycamp-Ollierivas complex, which include moderately well drained to well drained alluvium found on lava plateaus. Depth to duripan across the site varies from 20 to 40 inches below ground surface.

The project site is not within the mapped the California Geological Survey Liquefaction Hazard Zone and is not within the mapped in California Geological Survey Earthquake-Induced Landslide Hazard Zone. The project site is in an area with a “low” liquefaction potential (USDA, 2019).

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

- i) *Rupture of a known earthquake fault;*

**NO IMPACT.** The project is not located within the nearest Alquist-Priolo Earthquake Fault Rupture Hazard Zone; however, the McArthur Fault is located approximately 3.5 miles northeast of the project site. The project does not involve development of new structures that could increase the risk over baseline conditions. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- ii) *Strong seismic ground shaking;*

**NO IMPACT.** The project does not include any new construction of utilities or structures. The project site would continue to operate as open space, which would not differ from current operations on the project site. The project would not place people or structures at risk from the effects of ground shaking. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

iii) *Seismic-related ground failure, including liquefaction;*

**NO IMPACT.** As stated above, the liquefaction hazard on the site is low. The proposed project would not place people or structures at risk from the effects of liquefaction due to ground shaking. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

iv) *Landslides.*

**NO IMPACT.** Lateral spreading can develop when liquefaction occurs beneath an open or free face, such as along a creek. The project site is not located in an area designated with a high to very high potential for landslides and does not involve the development of housing or structures that could put people at risk. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- b) **LESS-THAN-SIGNIFICANT IMPACT.** The project would result in the excavation of topsoil at the project site, which could erode if exposed to precipitation. Additionally, construction activities would cause ground disturbance to surface areas and involve stockpiling excavated materials. Soil erosion or the loss of topsoil during construction activities would be minimized by implementing erosion-control BMPs (refer to the Hydrology and Water Quality section). These measures would reduce impacts on soil erosion to less than significant.

**Mitigation Measures:** No mitigation measures are required.

- c) **NO IMPACT.** The project would not be located on a geologic unit or soils that are unstable or would become unstable as a result of the project, potentially resulting in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The project would be completed using current construction and engineering techniques to ensure safe construction; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- d) **LESS-THAN-SIGNIFICANT IMPACT.** The shrink-swell potential is low to moderately high for the soils on the project site, making them slightly susceptible to expansion. Only the Pitt Silty Clay has a moderately low to moderately high shrink-swell potential at depths of 0 to 60 inches. The project does not propose development of new housing or structures and would not create a substantial risk to life or property. Therefore, the impact would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- e) **NO IMPACT.** No septic tanks or alternative wastewater disposal systems are proposed for this project. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- f) **LESS-THAN-SIGNIFICANT IMPACT.** The excavation of lead contaminated soil is limited to approximately 2,700 cubic yards over a 3-acre area to a depth of 0.5 to 1.5 feet. Due to the limited depth and scope of excavation, the project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Geology and Soils* were found to be less-than-significant.

<b>VIII. GREENHOUSE GAS EMISSIONS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

**Discussion:** Greenhouse gases (GHGs) include both naturally occurring and anthropogenic gases that trap heat in the earth's atmosphere. GHGs known to contribute significantly to climate change include CO<sub>2</sub>, methane, nitrous oxide, hydro-chlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride.



In California, transportation sources compose the largest category of GHG-emitting sources (California Air Resources Board [CARB] 2019). In 2018, the annual California statewide GHG emissions were 425 million metric tons of CO<sub>2</sub>-equivalent, 6 MMT CO<sub>2</sub>e below the 1990 emissions level and the State's 2020 GHG limit of 431 MMTCO<sub>2</sub>e (CARB, 2020).

Shasta County's General Plan includes a Greenhouse Gas Reduction Strategy that is consistent with implementation requirements of the Global Warming Solutions Act of 2006 (Assembly Bill [AB]32) (County of Shasta, 2004). The Strategy identifies specific policies incorporated within the General Plan that would reduce GHG emissions. Additionally, the 2012 Regional Climate Action Plan provides a regional strategy to protect public health by reducing emissions of GHGs, as well as ozone precursors, particulate matter, and toxic air contaminants (County of Shasta, 2012).

The project site is located in Shasta County and the Northern Sacramento Valley Air Basin (NSVAB) and is under the jurisdiction of the Shasta County Air Quality Management District (SCAQMD). Neither Shasta County nor the SCAQMD have adopted quantitative thresholds for determining the significance of GHG emissions. In 2010, the SCAQMD initiated the regional climate action planning (RCAP) process. The primary objectives of the RCAP process are to contribute to the State's climate protection efforts and to provide CEQA review streamlining benefits for development projects within the region's four jurisdictions: the City of Anderson, the City of Redding, the City of Shasta Lake, and the unincorporated areas of Shasta County. To facilitate these objectives, the SCAQMD worked with the four jurisdictions to prepare community-specific, independent climate action plans that contain GHG emission inventories and forecasts, emission reduction measures, and implementation and monitoring programs.

The Climate Action Plans (CAP) provide a summary of jurisdictional GHG inventories and describe how each jurisdiction will achieve GHG reductions through local actions that contribute to the statewide GHG emissions reduction target defined in AB 32, the California Global Warming Solutions Act of 2006, CEQA guidelines, and other State guidance. The RCAP document serves as a collection of the individual climate action plans and demonstrates the region's commitment to the State's GHG reduction efforts. The RCAP was finalized in 2012, although not adopted by the SCAQMD. Chapter 2 of the RCAP serves as the CAP for the unincorporated areas within the County, including the project site (Shasta County, 2012). The GHG reduction measures developed for the unincorporated areas of the County are primarily intended for land use projects (e.g., housing, commercial, etc.), and are not applicable to reducing the emissions associated with soil excavation and grading projects. Since the RCAP was never adopted by the SCAQMD, and the reduction measures in the RCAP are not applicable to the proposed project, it is proposed to conduct a quantitative analysis of the proposed project's GHG emissions impacts instead of a qualitative analysis of consistency with the RCAP.

As noted above, quantitative thresholds for determining the significance of GHG emissions have not been adopted by either Shasta County or the SCAQMD. In the absence of quantitative thresholds, CEQA practitioners often use thresholds and guidance provided by other air districts in the State. In the Sacramento Valley Air Basin (SVAB), a commonly used GHG significance threshold is 1,100 metric tons of CO<sub>2</sub>e per year (MTCO<sub>2</sub>e/yr) (SMAQMD, 2018). This threshold is used by the Sacramento Metropolitan Air Quality Management District (SMAQMD) for analyzing GHG emissions from both construction and operational activity. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32, SB 32, the Scoping Plan, and Executive Orders (SMAQMD, 2018). The 1,100 MTCO<sub>2</sub>e/yr threshold is also used by several other air districts in the State including the Bay Area Air Quality Management District and the Mendocino County Air Quality Management District. As such, this threshold has been adopted for use in the SVAB and is one of the most used thresholds in the State for analyzing the potential impacts of construction and operational GHG emissions. For the reasons noted above, the threshold of 1,100 MTCO<sub>2</sub>e/yr is used to evaluate the proposed project's construction and operational GHG emissions. The use of this quantitative project-specific threshold by Shasta County, as lead agency, would be consistent with certain practices of other lead agencies in the SVAB and throughout the State of California. If the threshold is exceeded, then the project would have a cumulatively considerable contribution to a significant cumulative environmental impact and would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT IMPACT.* Currently there are no applicable quantitative thresholds for GHG emissions in the District's CEQA guidelines (County of Shasta, 2003). Therefore, the impacts of GHG were evaluated based on whether GHG emissions from project construction would hinder or conflict with State or local GHG reduction strategies and/or emission reduction goals. The construction of the project would be temporary, occurring over approximately 13 weeks. GHG emissions from construction equipment and vehicle tailpipe emissions were estimated using CalEEMod and are approximately 112 metric tons as carbon dioxide equivalent (CO<sub>2</sub>e), which would be negligible compared with the local and statewide GHG inventory. The minimal GHG emissions during project construction would not contribute substantially to the regional GHG emission inventory or contribute to global climate change. Some of the BMPs proposed in Air Quality Section 3.3 would also reduce GHG emissions. For these reasons, impacts from GHG emissions would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- b) The proposed project would generate direct GHG emissions from short-term construction activities. The Regional Climate Action Plan prepared by the SCAQMD in 2012 was not adopted and the reduction measures in the Plan are not applicable to a road construction project. As such, for the proposed project, it is analyzed whether the emissions obstruct compliance with the GHG emission reduction goals in Assembly Bill (AB 32), Senate Bill 32 (SB 32), and Executive Order S-3-05 (EO S-3-05). To the extent that the proposed project does not exceed the threshold of significance of 1,100 MTCO<sub>2</sub>e/yr, it would not have a cumulatively considerable contribution to a significant cumulative environmental impact and would not result in a conflict with GHG reduction plans.

As discussed above, GHG emissions from the proposed project's construction and operational activity are well below the threshold of significance of 1,100 MTCO<sub>2</sub>e/yr. As noted in the Setting, this threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32, SB 32, the Scoping Plan, and Executive Orders (SMAQMD, 2018). Therefore, construction and operational emissions from the proposed project would be less-than-significant and would not result in a conflict with the GHG emission reduction goals in Assembly Bill (AB 32), Senate Bill 32 (SB 32), and Executive Order S-3-05 (EO S-3-05).

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Greenhouse Gas Emissions* were found to be less-than-significant.

<b>IX. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?				X

**Discussion:** The nearest school is located approximately 1 mile southeast of the site. There is one public airstrip, the Fall River Mills Airport, located approximately 1 mile east of the site. The nearest fire station is approximately 1.5 miles southeast on California Highway 299, and the nearest hospital, Mayers Memorial Hospital, is approximately 3.8 miles northeast of the project site on California Highway 299.

The site was used as a shooting range and trap club for approximately 50 years from the 1950s to 2004. Voluntary soil removal activities are planned at the site to remove residual lead in soil at the project site. The site has been well-characterized, with investigations conducted in 2010, 2014, 2018, and 2019 to assess and delineate areas of potential lead and polycyclic aromatic hydrocarbon (PAH) impacts. During these investigations, more than 650 soil samples were collected and analyzed for lead, PAHs, and other analytes. Lead is the primary component of the shot used during the era when the trap club was operational, and PAHs occur in the traps used for target shooting.

To address concentrations of lead and lead shot that exceed remediation goals (RGs), results from the soil samples collected at the site were compared to lead and lead shot risk-based RGs to develop the project excavation area. Approximately 2,700 cubic yards of lead- and lead shot-impacted soil over a 3-acre area would be excavated. The lateral and vertical extents of the remediation area were defined by the soil sampling conducted through 2018. Investigation results identified that the vertical extent of material exceeding the RG is limited to a depth of 0.5 to 1.5 feet below ground surface (bgs) within the planned excavation area (Jacobs, 2020).

Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a,b) *LESS-THAN-SIGNIFICANT IMPACT*. An investigation into the Envirostor and GeoTracker databases did not identify contaminated sites within the project area (California Department of Toxic Substances Control 2019). The project site contains concentrations of lead in soil above RGs. Soil would be excavated from the project site to the depths of 0.5-to 1.5 feet bgs in the excavation area. Surface soils that would be removed from the site may be considered as a RCRA or California Hazardous Waste due to elevated levels of lead associated with past trap club activities. Any soils removed from the project site would be sampled and tested to determine appropriate disposal options at an approved facility. Hazardous materials during construction would be handled in compliance with laws and regulations regarding transport, handling, disposal, and storage. Federal, State, and local reporting requirements would be followed regarding the use of hazardous and nonhazardous materials at the project site. The following BMPs would be applied to reduce potential impacts to the human health and the environment to less than significant:

- The site would be properly treated in the areas disturbed by on-site or off-site construction by water application or the use of another dust palliative, with the intent of minimizing fugitive dust emissions. The project owner would implement the fugitive dust emission measures on- and off-site to reduce fugitive dust from project-related construction activities.
- All construction activities would be properly monitored for visible dust plumes. The construction contractor would observe and implement the visible dust plume mitigation measures to ensure that visible dust plumes are mitigated as a potential result from project-related construction activities.

c) *NO IMPACT*. The nearest school, Fall River Elementary School, is located approximately 1 mile southwest of the project site. There are no schools within a 0.25-mile radius of the project site. Therefore, there would be no hazardous materials emitted from the site capable of creating offsite impacts at a nearby existing or proposed school, and there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

d) *NO IMPACT*. The project site and immediately adjacent properties are not on the State of California Hazardous Waste and Substances Site List (also known as the Cortese List). The project is not currently subject to institutional or engineering controls; however, the project site has recognized environmental conditions related to past use as a trap club.

Any hazardous materials found during construction would be handled in compliance with laws and regulations regarding transport, handling, disposal, and storage. Federal, State, and local reporting requirements would be followed regarding the use of hazardous and nonhazardous materials at the project site. Therefore, the construction-related activities at the project site are not expected to create a significant hazard to the public or the environment.

**Mitigation Measures:** No mitigation measures are required.

e) *LESS-THAN-SIGNIFICANT IMPACT*. The project site is located approximately 1 mile northwest of the Fall River Mills Airport. Currently, the project site does not contain structures, and construction activities are temporary in nature and would not include activities that would interfere with airport activities. The project would not result in any safety hazard for people residing or working in the project area. Therefore, the impact is less than significant.

**Mitigation Measures:** No mitigation measures are required.

f) *NO IMPACT*. The project does not include any changes to the existing public roadways that provide emergency access to the site. Therefore, the project would not impair the implementation of, or physically interfere with, any adopted emergency response plan or emergency evacuation plan and no impact would occur.

**Mitigation Measures:** No mitigation measures are required.

g) *NO IMPACT*. Existing conditions would not change with the project. The project site is not located in a mapped fire hazard severity zone; therefore, no impact would result.

**Findings:** In the course of the above evaluation, impacts associated with *Hazards and Hazardous Materials* were found to be less-than-significant.

<b>X. <u>HYDROLOGY AND WATER QUALITY</u>:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.				X
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 flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable management plan?				X

**Discussion:** The project area is located adjacent to Fall River Lake which is managed by PG&E for flood control and electrical power generation. The northern limit of proposed soil disturbance is located approximately at the southern-most boundary of the F-2 flood zone.

The National Flood Insurance Program provides flood hazard information within the project area. The current mapping of the floodplain shows 100-year floodwaters to be relatively well contained in the Fall River and Fall River Lake area and around the project area. Within the project area, Fall River is designated as Zone A, which includes areas that are subject to inundation by a 100-year-flood event and all adjacent floodplain areas that must be kept free of encroachment so that the 1-percent annual chance flood can be carried without substantial increases in flood heights.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) **LESS-THAN-SIGNIFICANT IMPACT.** Project construction may result in temporary impacts on surface water quality. When soils are disturbed, surface runoff that flows across the site may contain sediments that are conveyed into the lake. To address this concern, the project is subject to construction-related stormwater permit requirements. The California State Water Resources Control Board has adopted a statewide General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) that applies to projects resulting in 1 or more acre of soil disturbance. For projects disturbing more than 1 acre of soil, a construction SWPPP is required that specifies site management activities to be implemented during site development. These management activities include construction stormwater BMPs, erosion and sedimentation controls, dewatering, runoff controls, and construction equipment maintenance. The Central Valley RWQCB requires a Notice of Intent to be filed before any stormwater is discharged from construction activities and that the SWPPP be implemented and maintained on site. When construction is complete, the project would file a Notice of Termination with the Central Valley RWQCB and Shasta County, documenting that all SWPPP elements have been implemented.

By complying with existing permits, runoff from the project site would not violate the applicable waste discharge requirements or otherwise contribute to the degradation of stormwater runoff quality. Therefore, any impact would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- b) **NO IMPACT.** Project construction would not substantially deplete groundwater supplies because no groundwater would be used during project-related construction activities, and no groundwater wells would be affected. Excavation activities at the project site would occur in the top 0.5 to 1.5 feet of soils and would not encounter groundwater at the site, which is approximately 15 to 30 feet below ground surface. The project site is currently rural and undeveloped in nature and would be returned to its current conditions upon completion of project-related construction activities. Therefore, groundwater or groundwater recharge would not be impacted at the project site.

**Mitigation Measures:** No mitigation measures are required.

- ci) *LESS-THAN-SIGNIFICANT IMPACT.* No permanent impacts on aquatic resources or other waters would be expected because construction activities would be located within a flat area away from the Fall River or Fall River Lake edge. Water quality BMPs would be employed (See (a) above) to further avoid erosion or siltation during and after construction activities and impacts would be less than significant.
- cii) *LESS-THAN-SIGNIFICANT IMPACT.* No additional runoff would result from project construction, and no runoff in excess of existing conditions would occur as a result of using and maintaining the project area. A SWPPP has been developed for the project, which includes the implementation of BMPs and closeout activities to address both construction and post-construction site conditions. Therefore, no substantial alteration to the site or the area's existing drainage pattern or substantial increase in the rate or amount of surface runoff would occur, and impacts would be less than significant.
- ciii) *LESS-THAN-SIGNIFICANT IMPACT.* No additional runoff would result from project construction, and no runoff in excess of existing conditions would occur as a result of using and maintaining the project area. Therefore, the project would not affect the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- civ) *LESS-THAN-SIGNIFICANT IMPACT.* The project is not within a flood hazard zone; therefore, the project would not impede or redirect flood flows.

**Mitigation Measures:** No mitigation measures are required.

- d) *NO IMPACT.* Project construction would occur in areas that have been previously disturbed. After construction is complete, temporary disturbance areas would be restored to match pre-construction conditions by grading and seeding. The project would not alter the overall drainage pattern of the area, alter the course of a stream or river, or substantially increase the amount of surface runoff in a manner which would result in flooding. Therefore, no impact would occur.

**Mitigation Measures:** No mitigation measures are required.

- e) *NO IMPACT.* As described in (a) previously, the project would be required to comply with Construction General Permit. The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater plan; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Hydrology and Water Quality* were found to be less-than-significant.

<b>XI. LAND USE AND PLANNING:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

**Discussion:** The project is zoned Unclassified (U). Pursuant to Shasta County Zoning Ordinance Chapter 17.64, the Unclassified (U) district is intended to be applied as a holding district until a precise principal zone district has been adopted for the property. All new uses in this district shall be consistent with all applicable policies of the general plan. The site has a Rural Residential B (RB) General Plan designation. The Shasta County General Plan describes Rural Residential B classification as vacant lots receiving no urban services and located in areas of the County characterized by potentially severe limitations on septic tank use, uncertain long-term availability of water, proximity to lands designated as timber, grazing, or croplands, remoteness from Urban, Town Centers, and Rural Community Centers, extreme wildland fire hazard, and/or inaccessibility via County maintained roads. The Pit River borders the project site to the north, east and west. Public facilities and undeveloped property designated Rural Residential A (RA), Rural Residential B (RB), and Suburban Residential (SR) are located south of Glenburn Road.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) *NO IMPACT.* Activities at the site would remove existing soil and restore the site to its existing state. The project would not divide an established community; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* Lands under Shasta County's General Plan land use designation of Rural Residential B district are typically rural residential living environments, usually located in and around rural communities and town centers. The site is currently rural in nature and would continue to be rural once the site construction is completed. Therefore, the project is consistent with the applicable Shasta County General Plan land use designations, goals, and objectives. No impact would occur.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Land Use and Planning* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

<b>XII. MINERAL RESOURCES:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan?				X

**Discussion:** A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. The designation is applied to sites determined by the State Division of Mines and Geology as being a resource of regional significance and is intended to help maintain any quarrying operations and protect them from encroachment of incompatible uses. There are no known mineral resources of regional value located on or near the proposed project.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *NO IMPACT.* The project would not 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. There are no known mineral resources of regional value located on or near the project site. No impacts would occur in this regard.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The project site is not identified in the General Plan Minerals Element as containing a locally important mineral resource. There is no other land use plan which addresses minerals. No impacts would occur in this regard.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Mineral Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

<b>XIII. NOISE:</b> Would the project result in:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

**Discussion:** The Fall River and Fall River Lake run along the northern and eastern boundaries of the project site. The nearest residential use is along Glenburn Road, approximately 0.40 miles northwest of the project site. Residences along Fort Crook Avenue, Long Street, and Fall River Mills Elementary School are located approximately 1 mile southwest of the project site.

Project construction would generate noise from the equipment used on site. Most individual pieces of construction equipment would generate noise levels of 80 to 85 A-weighted decibels (dBA) at 50 feet from the source, 59 dBA at 1,500 feet from the source, and 53 dBA at 3,000 feet from the source.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT WITH MITIGATION INCORPORATED.* Pursuant to the County's General Plan, noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table N-IV of the Shasta County General Plan as measured immediately within the property line of lands designated for noise-sensitive uses. These noise level performance standards for non-transportation sources are 55 decibels (dB) hourly  $L_{eq}$  for daytime (7:00 a.m. to 10:00 p.m.) hours and 50 dB hourly  $L_{eq}$  for nighttime (10:00 p.m. to 7:00 a.m.) hours.

Project construction would generate noise from the equipment used on site. Most individual pieces of construction equipment would generate noise levels of 80 to 85 dBA at 50 feet from the source, 59 dBA at 1,500 feet from the source, and 53 dBA at 3,000 feet from the source. Sensitive receptors are located approximately 0.40 miles northwest and 1 mile southwest of the project site and include residences along Glenburn Road, Fort Crook Avenue, Long Street, and Fall River Mill Elementary School, respectively. Based on these values, the noise levels at the nearest residential property are estimated to be 53-59 dBA, which could potentially exceed the performance standards at the nearest residential property.

Construction of the proposed project would be subject to compliance with the implementing policies of the Shasta County General Plan Noise Element. Additionally, implementation of Mitigation Measure XIII.a.1 would reduce construction noise associated with future development by ensuring that proper operating procedures are followed during construction so that nearby sensitive receptors are not adversely affected by noise (i.e., pursuant to the Shasta County General Plan). Therefore, following compliance with the Shasta County General Plan and implementation of Mitigation Measure XIII.a.1, impacts would be less-than-significant.

**Mitigation Measures:** The following mitigation measure has been developed to reduce potential impacts related to construction noise to a less-than-significant level:

**Mitigation Measure (MM) XIII.a.1:** Construction shall be limited to between the hours of 7 a.m. and 5 p.m., Monday through Friday; no weekend construction shall be conducted. Project grading and construction plans shall include the following noise control measures to be implemented by the project contractor throughout the duration of on-site construction activities. The plans shall be subject to the review and concurrence of the Shasta County Department of Resource Management that the project complies with the following:

- Fixed construction equipment such as compressors and generators shall be placed the greatest possible distance from sensitive receptors, but no closer than 200 feet from existing residential structures.
- All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power construction equipment shall be muffled or shielded.

- b) *LESS-THAN-SIGNIFICANT IMPACT.* Project construction may temporarily expose persons to ground vibrations above ambient levels. While Shasta County does not have specific general plan policies regarding the generation of vibrations that are specific to industrial or residential neighborhoods, construction would be temporary, and most activities would occur more than 0.40 miles from nearby residences. Impacts would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- c) *NO IMPACT.* The project site is located approximately 1 mile northwest of the Fall River Mills Airport. The project site does not contain structures, and construction would not include activities that would interfere with airport activities. The project would not result in any safety hazard for people residing or working in the project area. Therefore, the impact is less than significant.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Noise* were found to be less-than-significant with the implementation of the mitigation measures.



<b>XIV. POPULATION AND HOUSING:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *NO IMPACT.* The construction workforce is expected to come from the Redding area. As a result of the relatively short 13-week construction window, the likelihood that the construction workforce would relocate closer to the project site is fairly remote. The project would not result in the construction of new homes, businesses, or other infrastructure that would induce population growth in the area. Therefore, the project would not directly or indirectly induce substantial unplanned population growth with respect to local housing and there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* No housing units exist on the project site. The project would not displace existing housing or necessitate constructing replacement housing elsewhere. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Population and Housing* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

<b>XV. PUBLIC SERVICES:</b> 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:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Fire Protection?			X	
b) Police Protection?			X	
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT IMPACT.* Site construction and excavation activities would not increase the demand for fire protection services in the project site area. During construction activities emergencies could occur at the project site; however, appropriate notification to local emergency service providers before construction activities commence would address impacts that could affect emergency response times, such as lane closures. Due to the rural location of the site, a water truck would be present to provide both fugitive dust and fire suppression capabilities. Therefore, there would be a less-than-significant impact

**Mitigation Measures:** No mitigation measures are required.

*Police Protection:*

- b) *LESS-THAN-SIGNIFICANT IMPACT.* The project site would be served by the Shasta County Sheriff's Office. The nearest Sheriff's Office substation is in Burney, approximately 3 miles southwest of the site. During project implementation, emergencies could occur at the project site, but the project would not increase population and is not expected to affect crime rates in the vicinity. Therefore, there would be a less-than-significant impact.

**Mitigation Measures:** No mitigation measures are required.

- c) *NO IMPACT.* The project would not generate additional population or students during construction-related activities because they are temporary in nature; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- d) *NO IMPACT.* The project is temporary in nature and would not increase the use of existing neighborhood and regional parks or other recreational facilities; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- e) *NO IMPACT.* The project is temporary in nature and would not increase population during project construction; therefore, the project would not affect other government services or public facilities and would result in no impact.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Public Services* were found to be less-than-significant.

<b>XVI. RECREATION:</b>		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *NO IMPACT.* Construction-related activities at the project site would not increase the population in the area and, therefore, would not increase the use of existing regional parks or other recreational facilities. The project involves soil excavation activities, regrading, and reseeding of the site, which would improve the site conditions. No substantial deterioration of facilities would occur or be accelerated as a result of activities at the site. No impact would occur.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* The construction activities at the site would not include recreation facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impact would occur.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Recreation* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

<b>XVII. TRANSPORTATION:</b> Would the project:		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?			X	
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?				X
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm			X	

<b>XVII. TRANSPORTATION:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
equipment)?				
d) Result in inadequate emergency access?			X	

**Discussion:** The transportation elements of this project would involve the temporary use of existing roadways via construction equipment and crews to access the project site. Most construction traffic would access the site via State Highway 299 and Glenburn Road, and along a dirt road to the former Fall River Mills Trap Club location.

Excavated soils would be transported to offsite waste facilities via truck and potentially via rail. Soils characterized as RCRA or California hazardous waste would be loaded into covered trucks or loaded into large soft-sided containers called supersacks, which would be sealed, loaded into trucks and covered, and disposed of at US Ecology's Grand View, Idaho, facility. Nonhazardous soil would be loaded into covered bins and transported for disposal to either Waste Management's Anderson Landfill in Anderson, California or Recology's Ostrom Road Landfill in Linda, California. An average of five truck trips per day is expected over an 8- to 10-week period. The planned transportation routes to the disposal facilities are primarily located along State highways, interstates, and potentially rail. As previously discussed, the planned transportation routes would limit the use of residential streets by accessing the site via State Highway 299 and Glenburn Road, and along a dirt road to the former Fall River Mills Trap Club location.

#### *Regulatory Background*

Senate Bill 743 (2013) addresses the limitations of measuring impacts using level of service (LOS) analysis and provides an alternative to using LOS in the environmental review process. The focus is on assessing project-related changes in vehicle miles traveled (VMT), but the comprehensive guidance found at the Office of Planning and Research website at <http://opr.ca.gov/ceqa/updates/sb-743/>, which implements Senate Bill 743 changes to CEQA transportation analysis is project-dependent.<sup>1</sup>

Goals and policies related to transportation are established in the Shasta County General Plan Circulation Element (County of Shasta, 2004). Policy C-1 states that "existing road capacity available within the County road system should be used to serve future development prior to constructing new County maintained roads." Other policies are focused on land development, where new roads and/or additional traffic would be generated. This project would not generate additional long-term traffic.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT IMPACT.* The project would not conflict with plans, policies, or ordinances associated with the transportation system. There would be no physical changes to local streets within the circulation system including transit, roadways, bicycle, and pedestrian facilities. Similarly, construction activities would not conflict with plans, policies, or ordinances associated with the transportation system. Construction activities would temporarily generate a negligible amount of additional traffic along roadways in the vicinity of the project site caused by construction workers and materials deliveries. All existing facilities would be accommodated within the construction areas. Prior to construction beginning, the contractor would prepare and submit a Waste Management and Transportation Plan (WMTP) to County of Shasta for review. The WMTP would identify approved routes and timing of construction vehicles in and around the project site. The temporary increase in vehicle trips during construction would be minimal, and local street capacity and circulation would not be affected. Therefore, the impact would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* Senate Bill 743, which was codified in Public Resources Code Section 21099, required the California Office of Planning and Research (OPR) to establish new CEQA Guidelines "for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." The new criteria were required to move away from vehicle delay and LOS and move toward more multimodal concepts "that may include, but are not limited to, vehicle miles traveled (VMT), vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."

In 2018, Section 15064.3 was added to the CEQA Guidelines to reflect the provisions of Senate Bill 743. The section addresses both land use and transportation projects and broadly describes the methodology, including the potential for qualitative analysis, used to assess VMT. Agencies are given "broad discretion" to select the methodology for analysis or even apply a qualitative approach. The OPR prepared a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The guidance

<sup>1</sup> [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf).

addresses a variety of projects, with the recognition that the approach for evaluating impacts is necessarily project specific. Shasta County has not completed consideration of transportation significance thresholds based on VMT or put in practice VMT-based transportation significance thresholds.

Since no VMT thresholds have been adopted, the OPR publication Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) is used as reference for best assessing VMT. The guidelines are focused on land development and transportation improvement projects and their long-term effects on VMT. The OPR guidance provides screening thresholds for land use projects guidelines which state that, “absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.” Therefore, there is no impact associated with VMT because this project would not generate or attract new trips.

There is no specific guidance on assessing temporary VMT impacts during the construction of a project. An average of five truck trips per day would be generated during construction. Even though OPR’s VMT threshold criteria guidance is not applicable for assessing VMT changes during construction, there would be fewer than 110 trips per day related to construction activity. There would be no impact related to VMT.

**Mitigation Measures:** No mitigation measures are required.

- c) *LESS-THAN-SIGNIFICANT IMPACT.* The project would include the excavation of approximately 2,700 cubic yards of soil (approximately 135,000 square feet at a depth of 0.5 feet to 1.5 feet of soil containing lead shot). The excavated soil would be disposed of at an offsite location. After excavation, the area would be restored by regrading and reseeding. The project does not include any permanent changes to existing geometric design features. During construction, any potential temporary modification of the existing transportation facilities would be addressed by a Traffic Control Plan, to be prepared by the contractor and submitted to the Shasta County for review and approval prior to construction. Therefore, there would be less-than-significant impacts.

**Mitigation Measures:** No mitigation measures are required.

- d) *LESS-THAN-SIGNIFICANT IMPACT.* The project would not change existing emergency vehicle access routes in the area. There would not be any effects to emergency response or evacuation plans or emergency service providers or otherwise increase the demand for emergency response services. Similarly, during construction, emergency vehicles would still be able to access the project area site and surrounding facilities from State Highway 299 and Glenburn Road, and along a dirt road to the project site. While no major delays are anticipated, coordination with emergency responders would minimize any potential delays in response times for short-term construction activities. Therefore, there would be less-than-significant impacts.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Transportation* were found to be less-than-significant.

XVIII. <u>TRIBAL CULTURAL RESOURCES</u> : Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<p>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:</p> <p>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</p> <p>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.</p>		X		

**Discussion:** Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to require that: 1) a lead agency provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be

addressed during consultation include tribal cultural resources, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT WITH MITIGATION INCORPORATED*. As described in Section V, no listed historical resources, or resources eligible for listing, occur within the boundaries of the project site. However, it is possible that unidentified historical resources may be present. Impacts would be less than significant with implementation of MM V.b.1.

In accordance with Public Resources Code (PRC) Section 21080.3.1, the Pit River Tribe filed, and Shasta County received a request for formal notification of proposed projects within an area of Shasta County that is traditionally and culturally affiliated with the Tribe. Pursuant to PRC §21080.3.1, the Department of Resource Management sent a certified letter on January 11, 2021 to notify the Tribe that the project was under review and to provide the Tribe 30 days from the receipt of the letter to request consultation on the project in writing. To date, no response has been received.

**Mitigation Measures:** Refer to MM V.b.1 above in the Cultural Resources section.

**Findings:** In the course of the above evaluation, impacts associated with *Tribal Cultural Resources* were found to be less-than-significant with the implementation of the aforementioned mitigation measure.

<b>XIX. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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 relocations of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			X	

**Discussion:** The proposed project is within a rural environment within unincorporated Shasta County where utilities are in place. There are power lines that traverse the western portion of the project site. A power drop may be required to be installed for portable construction trailers that would be installed and located onsite. A suspected 6-inch underground water line is present in the southern portion of the excavation area; the depth of the line is not known. The project would not expand or adversely affect other utility services like wastewater, electricity, or solid waste disposal.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT IMPACT*. No utility construction or relocation of utilities would be required as part of the project. A power drop would be installed extending from the onsite power lines. Once construction is complete the power drop and associated equipment would be removed, and the power lines would return to their original condition. A geophysical utility locate would be performed over the entire excavation area prior to commencing work, along with placing a call to Underground Service Alert (811). Any utilities that are identified during the utility locate (including the suspected 6-inch water line) would be protected during

excavation to ensure they are not damaged and remain in their original condition. The impacts are temporary and therefore, this would be a less-than-significant impact.

**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* During construction, water would be required primarily for dust suppression and soil compaction. This water would be brought on site via tanker trucks. Construction water volumes would be minimal and would not require the construction of a new water connection. No water supplies would be needed or made available during operation; therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

- c) *NO IMPACT.* The project would not result in the production of any wastewater. No impacts are anticipated in this regard.

**Mitigation Measures:** No mitigation measures are required.

- d) *LESS-THAN-SIGNIFICANT IMPACT.* US Ecology's landfill in Grand View, Idaho, Waste Management's Anderson Landfill in Anderson, California, and Recology's Ostrom Road Landfill in Linda, California would provide adequate disposal space for the hazardous and nonhazardous solid waste (soil) associated with the project's 13-week construction period. Construction debris would be appropriately disposed of in nearby landfills that have adequate capacity to accept the waste generated from construction. The project would not have solid waste disposal needs after construction. Impacts to local landfills would therefore be less than significant.

**Mitigation Measures:** No mitigation measures are required.

- e) *LESS-THAN-SIGNIFICANT IMPACT.* The project's solid wastes would be disposed of in accordance with the federal CWA and with the state of California's and the County's requirements for safe waste handling and disposal. Impacts would be less than significant.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Utilities and Service Systems* were found to be less-than-significant.

<b>XX. WILDFIRE:</b> 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 Incorporated	Less-Than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

**Discussion:** The California Department of Forestry and Fire's (CAL FIRE) Fire and Resources Assessment Program provides Fire Hazard Severity Zones Maps that identify Moderate, High, and Very High Fire Hazard Severity Zones in Local, State, or Federal Responsibility Areas. The project is located in a Non-Very High Fire Severity Zone (Non-VHFHSZ) area. (CAL FIRE, 2019). Because the project is not located in a mapped Fire Hazard Severity Zone; the potential of a wildfire affecting the project area would be low.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *NO IMPACT.* A review of the project and the Shasta County and City of Anderson Multi-Jurisdictional Hazard Mitigation Plan, and the Shasta County Emergency Operations Plan, indicates that the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impacts would occur in this regard.



**Mitigation Measures:** No mitigation measures are required.

- b) *NO IMPACT.* The project would not 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. No impacts would occur in this regard.

**Mitigation Measures:** No mitigation measures are required.

- c) *NO IMPACT.* The project would not 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. No impacts would occur in this regard.

**Mitigation Measures:** No mitigation measures are required.

- d) *NO IMPACT.* The project is located in relatively flat area with little potential for increased flooding/landslide risks due to runoff or post-fire slope instability. Construction related activities of the project would not substantially alter the course of a drainage and would not alter local drainage patterns. Therefore, there would be no impact.

**Mitigation Measures:** No mitigation measures are required.

**Findings:** In the course of the above evaluation, impacts associated with *Wildfire* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

<b>XXI. <u>MANDATORY FINDINGS OF SIGNIFICANCE:</u></b>	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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 the self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
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 the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

**Discussion:** Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

- a) *LESS-THAN-SIGNIFICANT WITH MITIGATION INCORPORATED.* Based on the discussion and findings in Section V. Cultural Resources, there is evidence to support a finding that the project would have the potential to eliminate important examples of the major periods of California history or prehistory.
- b) *LESS-THAN-SIGNIFICANT IMPACT.* Based on the discussion and findings in all Sections above, there is no evidence to suggest that the project would have impacts that are cumulatively considerable.
- c) *LESS-THAN-SIGNIFICANT WITH MITIGATION INCORPORATED.* Based on the discussion and findings in Section XIII. Noise, there is evidence to support a finding that the project would have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

**Mitigation Measures/Monitoring:** With the mitigation measures being proposed, the impacts from the project would be less-than-significant. See the attached Mitigation Monitoring Program (MMP) for a complete listing of the proposed mitigation measures, timing/implementation of the measures, and enforcement/monitoring agent(s).

## INITIAL STUDY COMMENTS

**PROJECT NUMBER:** Former Fall River Mills Trap Club Soil Excavation Project - GRADE20-0074 - Pacific Gas & Electric Company

### GENERAL COMMENTS:

**Special Studies:** The following project-specific studies have been completed for the proposal and will be considered as part of the record of decision for the Mitigated Negative Declaration:

- Special Status Species Tables. (Appendix A)-attached
- Air Quality and GHG Modeling. (Appendix B)-attached
- Cultural Resources Inventory Report (Confidential, not a part)
- Remediation Work Plan, Fall River Mills Former Trap Club, Fall River Mills, California. Jacobs Engineering Group Inc. August 2020 (Appendix C) Need hyperlink on the County Website and placed in document 2<sup>nd</sup> to last page
- Waste Management and Transportation Plan Rev 2. Jacobs Engineering Group Inc. December 2020 (Appendix D) Need hyperlink on the County website and placed in document last page

**Conclusion/Summary:** Based on a field review by the Planning Division and other agency staff, early consultation review comments from other agencies, information provided by the applicant, and existing information available to the Planning Division, the project, (\*as mitigated), is not anticipated to result in any significant environmental impacts.

## SOURCES OF DOCUMENTATION FOR INITIAL STUDY CHECKLIST

All headings of this source document correspond to the headings of the initial study checklist. In addition to the resources listed below, initial study analysis may also be based on field observations by the staff person responsible for completing the initial study. Most resource materials are on file in the office of the Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001, Phone: (530) 225-5532.

### GENERAL PLAN AND ZONING

1. Shasta County General Plan and land use designation maps.
2. Applicable community plans, airport plans and specific plans.
3. Shasta County Zoning Ordinance (Shasta County Code Title 17) and zone district maps.
4. County of Shasta. 2003. Land Use Permitting Activities, Procedures for Implementing the California Environmental Quality Act. Accessed December 2, 2021. <https://www.co.shasta.ca.us/docs/libraries/resource-management-docs/aq-docs/scaqmd-ceqa-land-use-protocol.pdf>.

### ENVIRONMENTAL IMPACTS

#### I. AESTHETICS

1. Shasta County General Plan, Section 6.8 Scenic Highways, and Section 7.6 Design Review.
2. Zoning Standards per Shasta County Code, Title 17.
3. California Department of Transportation (Caltrans). 2019. California Scenic Highway Mapping System. Accessed March 5, 2019. [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/).

#### II. AGRICULTURAL AND FORESTRY RESOURCES

1. Shasta County General Plan, Section 6.1 Agricultural Lands.
2. Shasta County Important Farmland 2016 Map, California Department of Conservation.
3. Shasta County General Plan, Section 6.2 Timber Lands.
4. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.
5. California Department of Conservation. 2016. "Shasta County Important Farmland 2016" online map. Map published October 2016. <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016>.
6. California Department of Conservation. 2019. AB 3098 List. List Published September 13, 2019. <https://www.conservation.ca.gov/dmr/smara-mines>.

#### III. AIR QUALITY

1. Shasta County General Plan Section, 6.5 Air Quality.
2. Northern Sacramento Valley Air Basin, 2018 Air Quality Attainment Plan.
3. Records of, or consultation with, the Shasta County Department of Resource Management, Air Quality Management District.
4. California Air Resources Board (CARB). 2019. *California Greenhouse Gas Emissions for 2000 to 2017 – Trends of Emissions and Other Indicators*. 2019 Edition California GHG Emission Inventory. September 13. [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2017/ghg\\_inventory\\_trends\\_00-17.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf).

#### IV. BIOLOGICAL RESOURCES

1. Shasta County General Plan, Section 6.2 Timberlands, and Section 6.7 Fish and Wildlife Habitat.
2. Designated Endangered, Threatened, or Rare Plants and Candidates with Official Listing Dates, published by the California Department of Fish and Wildlife.
3. Natural Diversity Data Base Records of the California Department of Fish and Wildlife.
4. Federal Listing of Rare and Endangered Species.
5. Shasta County General Plan, Section 6.7 Fish and Wildlife Habitat.
6. State and Federal List of Endangered and Threatened Animals of California, published by the California Department of Fish and Wildlife.
7. Natural Diversity Data Base Records of the California Department of Fish and Wildlife.
8. Beedy, Edward C., William J. Hamilton III, Robert J. Meese, Daniel A. Airola, and Peter Pyle. 2017. Tricolored Blackbird (*Agelaius tricolor*), version 3.0. In *The Birds of North America* (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA.
9. California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database, Biogeographic Data Branch. California Department of Fish and Wildlife. Sacramento, CA. Accessed December 17, 2020. <https://www.wildlife.ca.gov/data/cnddb>.
10. California Native Plant Society (CNPS). 2020. Online Inventory of Rare, Threatened and Endangered Plants of California. Accessed December 17, 2020. <http://www.rareplants.cnps.org/advanced.html>.
11. ICF. 2020. Multiple Region Operations and Maintenance Habitat Conservation Plan, Final. Accessed December 21, 2020. [https://ecos.fws.gov/docs/plan\\_documents/thcp/thcp\\_3087.pdf](https://ecos.fws.gov/docs/plan_documents/thcp/thcp_3087.pdf).
12. Pilliod, D.S., J. L. Welty, and Robert Stafford. 2011. Terrestrial Movement Patterns Of Western Pond Turtles (*Actinemys Marmorata*) In Central California. *Herpetological Conservation and Biology*. 8(1): 207-221.
13. Rhodin, Anders G.J., Peter Paul van Dijk, John B. Iverson, H. Bradley Shaffer. 2010. "Turtles of the World 2010 Update: Annotated Checklist of Taxonomy, Synonymy, Distribution and Conservation Status." Archived from the original (PDF) on December 15, 2010. Retrieved December 15, 2010.
14. San Francisco Estuary Institute and the Aquatic Science Center (SFEI). 2020. California Aquatic Resource Inventory. Accessed December 18, 2020. <https://www.sfei.org/cari>.

15. U.S. Fish and Wildlife Service (USFWS). 2020a. Environmental Conservation Online System: Information, Planning and Conservation System (IPaC), 2020. Accessed December 17, 2020. <https://ecos.fws.gov/ipac/>.
16. U.S. Fish and Wildlife Service (USFWS). 2020b. Critical Habitat Portal, 2020. Accessed December 18, 2020. <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>.
17. U.S. Fish and Wildlife Service (USFWS). 2020c. National Wetlands Inventory (NWI). Accessed December 18, 2020. <https://www.fws.gov/wetlands/data/Mapper.html>.
18. Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California.

## **V. CULTURAL RESOURCES**

1. Shasta County General Plan, Section 6.10 Heritage Resources.
2. Records of, or consultation with, the following:
  - a. The Northeast Information Center of the California Historical Resources Information System, Department of Anthropology, California State University, Chico.
  - b. State Office of Historic Preservation.
  - c. Local Native American representatives.
  - d. Shasta Historical Society.

## **VI. ENERGY**

1. California Global Warming Solutions Act of 2006 (AB 32)
2. California Code of Regulations Title 24, Part 6 – California Energy Code
3. California Code of Regulations Title 24, Part 11 – California Green Building Standards Code (CALGreen)

## **VII. GEOLOGY AND SOILS**

1. Shasta County General Plan, Section 5.1 Seismic and Geologic Hazards, Section 6.1 Agricultural Lands, and Section 6.3 Minerals.
2. County of Shasta, Erosion and Sediment Control Standards, Design Manual
3. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.
4. Alquist - Priolo, Earthquake Fault Zoning Maps.

## **VIII. GREENHOUSE GAS EMISSIONS**

1. Shasta Regional Climate Action Plan
2. California Air Pollution Control Officers Association (White Paper) CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act

## **IX. HAZARDS AND HAZARDOUS MATERIALS**

1. Shasta County General Plan, Section 5.4 Fire Safety and Sheriff Protection, and Section 5.6 Hazardous Materials.
2. County of Shasta Multi-Hazard Functional Plan
3. Records of, or consultation with, the following:
  - a. Shasta County Department of Resource Management, Environmental Health Division.
  - b. Shasta County Fire Prevention Officer.
  - c. Shasta County Sheriff's Department, Office of Emergency Services.
  - d. Shasta County Department of Public Works.
  - e. California Environmental Protection Agency, California Regional Water Quality Control Board, Central Valley Region.

## **X. HYDROLOGY AND WATER QUALITY**

1. Shasta County General Plan, Section 5.2 Flood Protection, Section 5.3 Dam Failure Inundation, and Section 6.6 Water Resources and Water Quality.
2. Flood Boundary and Floodway Maps and Flood Insurance Rate Maps for Shasta County prepared by the Federal Emergency Management Agency, as revised to date.
3. Records of, or consultation with, the Shasta County Department of Public Works acting as the Flood Control Agency and Community Water Systems manager.
4. U.S. Geological Survey (USGS). 2020. National Hydrography Dataset (NHD). Accessed December 18, 2020. <https://www.usgs.gov/core-science-systems/ngp/national-hydrography>.

## **XI. LAND USE AND PLANNING**

1. Shasta County General Plan land use designation maps and zone district maps.
2. Shasta County Assessor's Office land use data.

## **XII. MINERAL RESOURCES**

1. Shasta County General Plan Section 6.3 Minerals.

## **XIII. NOISE**

1. Shasta County General Plan, Section 5.5 Noise and Technical Appendix B.

## **XIV. POPULATION AND HOUSING**

1. Shasta County General Plan, Section 7.1 Community Organization and Development Patterns.
2. Census data from U.S. Department of Commerce, Bureau of the Census.

3. Census data from the California Department of Finance.
4. Shasta County General Plan, Section 7.3 Housing Element.
5. Shasta County Department of Housing and Community Action Programs.

#### **XV. PUBLIC SERVICES**

1. Shasta County General Plan, Section 7.5 Public Facilities.
2. Records of, or consultation with, the following:
  - a. Shasta County Fire Prevention Officer.
  - b. Shasta County Sheriff's Department.
  - c. Shasta County Office of Education.
  - d. Shasta County Department of Public Works.

#### **XVI. RECREATION**

1. Shasta County General Plan, Section 6.9 Open Space and Recreation.

#### **XVII. TRANSPORTATION/TRAFFIC**

1. Shasta County General Plan, Section 7.4 Circulation.
2. Records of, or consultation with, the following:
  - a. Shasta County Department of Public Works.
  - b. Shasta County Regional Transportation Planning Agency.
  - c. Shasta County Congestion Management Plan/Transit Development Plan.
3. Institute of Transportation Engineers, Trip Generation Rates.
4. Governor's Office of Planning and Research's December 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*

#### **XVIII. TRIBAL CULTURAL RESOURCES**

1. Tribal Consultation in accordance with Public Resources Code section 21080.3.1

#### **XIX. UTILITIES AND SERVICE SYSTEMS**

1. Records of, or consultation with, the following:
  - a. Pacific Gas and Electric Company.
  - b. Pacific Power and Light Company.
  - c. Pacific Bell Telephone Company.
  - d. Citizens Utilities Company.
  - e. T.C.I.
  - f. Marks Cablevision.
  - g. Shasta County Department of Resource Management, Environmental Health Division.
  - h. Shasta County Department of Public Works.

#### **XX. WILDFIRE**

1. Office of the State Fire Marshall-CALFIRE Fire Hazard Severity Zone Maps
2. California Department of Forestry and Fire (CAL FIRE). 2019. Very High Fire Hazard Severity Zones in LRA – Shasta County. Accessed September 13, 2019. [https://osfm.fire.ca.gov/media/6806/fhszl\\_map45.pdf](https://osfm.fire.ca.gov/media/6806/fhszl_map45.pdf).

#### **XXI. MANDATORY FINDINGS OF SIGNIFICANCE**

None

**MITIGATION MONITORING PROGRAM (MMP)  
FOR GRADING PERMIT 20-0074**

Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
<b>Section V. Cultural Resources</b>			
V.b.1) In the event that an archaeological resource is encountered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped. A qualified archaeologist shall remain on-call during the course of the project and immediately examine the find. If the find appears significant, the archaeologists shall record the resource on Department of Parks and Recreation 523 Primary Record forms. In the event the resource cannot be avoided in order to complete the project, the archaeologist shall make a recommendation regarding eligibility for the California Register of Historical Resources, data recovery, curation, or other appropriate mitigation. Ground disturbance within the 50-foot radius can resume once these steps are taken.	Through the duration of construction	Contractor (Reporting) / Certified Archaeologist	
V.b.2) During the course of construction, if an alternative methodology is proposed for collecting clay target fragments within the boundary of CA-SHA-70/H, the alternative methodology must be approved by a qualified archaeologist and submitted to the Shasta County Department of Resource Management to determine if additional environmental review will be required.	Through the duration of construction	PG&E (Reporting) /  Certified Archaeologist / Resource Management, Planning Division (Review)	



**MITIGATION MONITORING PROGRAM (MMP)  
FOR GRADING PERMIT 20-0074**

Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
<b>Section XIII. Noise</b>			
<p>XIII.a.1): Construction shall be limited to between the hours of 7 a.m. and 5 p.m., Monday through Friday; no weekend construction shall be conducted. Project grading and construction plans shall include the following noise control measures to be implemented by the project contractor throughout the duration of on-site construction activities. The plans shall be subject to the review and concurrence of the Shasta County Department of Resource Management that the project complies with the following:</p> <ul style="list-style-type: none"> <li>• Fixed construction equipment such as compressors and generators shall be placed the greatest possible distance from sensitive receptors, but no closer than 200 feet from existing residential structures.</li> <li>• All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power construction equipment shall be muffled or shielded.</li> </ul>	Through the duration of construction	Contractor (Reporting) / Resource Management Planning Division (Plans review)	
<b>Section XVIII. Tribal Cultural Resources</b>			
<p>XVIII.a.1) In the event that an archaeological resource is encountered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped. A qualified archaeologist shall remain on-call during the course of the project and immediately examine the find. If the find appears significant, the archaeologists shall record the resource on Department of Parks and Recreation 523 Primary Record forms. In the event the resource cannot be avoided in order to complete the project, the archaeologist shall make a recommendation regarding eligibility for the California Register of Historical Resources, data recovery, curation, or other appropriate mitigation. Ground disturbance within the 50-foot radius can resume once these steps are taken.</p>	Through the duration of construction	Contractor (Reporting) / Certified Archaeologist	

## **Appendix A**

### **Special-Status Species Tables**

The special-status species tables have been divided into plants (Table 1) and wildlife (Table 2). See Section 3.4.3.3 of the Initial Study for a discussion on the how the likelihood of occurrence was determined.

**Table 1. Special-Status Plant Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Blooming Period	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CNPS			
<i>Astragalus lemmonii</i>	Lemmon's milk-vetch	-	-	1B.2	Great Basin scrub, meadows and seeps, and marshes and swamps (lake shores).	May-Aug (Sep)	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA associated with the fringe of the Fall River, however no suitable habitat is present within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Brasenia schreberi</i>	watershield	-	-	2B.3	Marshes and swamps (freshwater).	Jun-Sep	<b>Potential to occur.</b> There is suitable wetland habitat within the BSA associated with the fringe of the Fall River, however no suitable habitat is present within the project footprint. There is one CNDDDB occurrence within 2 miles of the BSA.
<i>Calochortus longebarbatus</i> var. <i>longebarbatus</i>	long-haired star-tulip	-	-	1B.2	Occurs in clay and mesic soils in Great Basin scrub, lower montane coniferous forest (openings and drainages), meadows and seeps, and vernal pools.	Jun-Aug	<b>Absent.</b> Suitable habitat is not present in the BSA. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Carex comosa</i>	bristly sedge	-	-	2B.1	Coastal prairie, marshes and swamps (lake margins), and valley and foothill grassland. Grows in mesic areas	May-Sep	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA, but no suitable habitat is present within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	-	E	1B.2	Occurs in marshes and swamps (lake margins) and vernal pools in clay soil.	Apr-Aug	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA, but no suitable habitat is present within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Heteranthera dubia</i>	water star-grass	-	-	2B.2	Requires a pH of 7 or higher, usually in slightly eutrophic waters. Occurs in marshes and swamps (alkaline, still or slow-moving water).	Jul-Oct	<b>Unlikely to occur.</b> There is marginally suitable wetland habitat along the fringes of the Fall River within the BSA, there is no suitable habitat within the project footprint. There is one CNDDDB occurrence within 2 miles of the BSA.
<i>Limnanthes floccosa</i> ssp. <i>bellingiana</i>	Bellinger's meadowfoam	-	-	1B.2	Occurs in cismontane woodland and meadows and seeps in mesic soil.	Apr-Jun	<b>Absent.</b> Suitable habitat is not present in the BSA. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Lysimachia thyrsiflora</i>	tufted loosestrife	-	-	2B.3	Occurs in meadows and seeps, marshes and swamps, and upper	May-Aug	<b>Unlikely to occur.</b> There is suitable wetland and mesic habitat within the BSA in proximity to the Fall River, however no suitable habitat is present within the

**Table 1. Special-Status Plant Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Blooming Period	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CNPS			
					montane coniferous forest typically in mesic soil.		project footprint. There is one CNDDDB occurrence within 2 miles of the BSA.
<i>Nemophila breviflora</i>	Great Basin nemophila	-	-	2B.3	Occurs in Great Basin scrub, meadows and seeps, and upper montane coniferous forest in mesic soil.	May-Jul	<b>Absent.</b> Suitable habitat is not present in the BSA. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Orcuttia tenuis</i>	slender Orcutt grass	T	E	1B.1	Occurs in vernal pools in often gravelly soil.	May-Sep (Oct)	<b>Absent.</b> Suitable habitat is not present in the BSA. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Potamogeton zosteriformis</i>	eel-grass pondweed	-	-	2B.2	Marshes and swamps (assorted freshwater)	Jun-Jul	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA adjacent to the Fall River, there is no suitable habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Scutellaria galericulata</i>	marsh skullcap	-	-	2B.2	Lower montane coniferous forest, meadows and seeps (mesic), and marshes and swamps.	Jun-Sep	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA associated with the fringe of the Fall River, there is no suitable habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Stachys pilosa</i>	hairy marsh hedge-nettle	-	-	2B.3	Occurs in Great Basin scrub and meadows and seeps in mesic soil.	Jun-Aug	<b>Absent.</b> Suitable habitat is not present in the BSA. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Stellaria longifolia</i>	long-leaved starwort	-	-	2B.2	Occurs in bogs and fens, meadows and seeps (mesic), riparian woodland, and upper montane coniferous forest.	May-Aug	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA associated with the fringe of the Fall River, there is no suitable habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	slender-leaved pondweed	-	-	2B.2	Found in shallow freshwater lakes, marshes, swamps, and drainage channels in the western US, 980-7055 ft.	May-Jul	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA associated with the fringe of the Fall River, there is no suitable habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Thelypodium howellii</i>	Howell's thelypodium	-	-	1B.2	Occurs in Great Basin scrub and meadows and seeps in alkaline soil.	May-Jul	<b>Absent.</b> Suitable habitat is not present in the BSA. There are no CNDDDB occurrences within 2 miles of the BSA.

Sources:

**Table 1. Special-Status Plant Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Blooming Period	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CNPS			

California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database, Biogeographic Data Branch. California Department of Fish and Wildlife. Sacramento, CA. Accessed December 17, 2020. <https://www.wildlife.ca.gov/data/cnddb>.

California Native Plant Society (CNPS). 2020. Online Inventory of Rare, Threatened and Endangered Plants of California. Accessed December 17, 2020. <http://www.rareplants.cnps.org/advanced.html>

U.S. Fish and Wildlife Service (USFWS). 2020. Environmental Conservation Online System: Information, Planning and Conservation System (IPaC), 2020. Accessed December 17, 2020. <https://ecos.fws.gov/ipac/>.

<sup>a</sup>Status designations are as follows:

Federal Designations:

(T) Federally Threatened

State Designations:

(E) State Endangered

California Native Plant Society (CNPS) California Rare Plant Rank:

(1B) Rare, threatened, or endangered in California and elsewhere; (2B) Rare, threatened, or endangered in California, but more common elsewhere

Threat Rank:

0.1 Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat)

0.2 Fairly threatened in California (20 to 80% of occurrences threatened/moderate degree and immediacy of threat)

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

**Table 2. Special-Status Wildlife Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CDFW		
<b>Crustaceans</b>						
<i>Pacifastacus fortis</i>	Shasta crayfish	E	E	-	Found only in the Fall and Hat creek sub-drainages of the Pit River system. Inhabits cool, clear water with low gradient and temperature variability; substrate is volcanic rubble on sand/gravel; little vegetation.	<b>Potential to occur.</b> Fall River within the BSA provides suitable habitat, however there is no suitable habitat within the project footprint. There is a CNDDB occurrence in Fall River approximately 1.5 miles away from the project area.
<b>Fish</b>						
<i>Cottus asperimus</i>	rough sculpin	-	T	FP	Restricted to the Pit River above and below the falls at Burney, and the Hat Creek and Fall River sub drainages. Found mostly on the muddy bottoms of large streams.	<b>Potential to occur.</b> There is suitable habitat within Fall River within the BSA, however there is no suitable habitat within the project footprint. There are 2 CNDDB occurrences within 2 miles of the BSA.

**Table 2. Special-Status Wildlife Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CDFW		
<i>Cottus klamathensis macrops</i>	bigeye marbled sculpin	-	-	SSC	Found in the Pit River system and three tributaries: Hat Creek, Burney Creek, and the Fall River system. Inhabits large, clear, cool spring-fed streams, but sometimes found in reservoirs. Prefers abundant vegetation and coarse substrates.	<b>Potential to occur.</b> There is suitable habitat within Fall River within the BSA, however there is no suitable habitat within the project footprint. There is one CNDDDB occurrence within 2 miles of the BSA.
<i>Entosphenus lethophagus</i>	Pit-Klamath brook lamprey	-	-	SSC	In California it is found only in the Pit River system. Inhabits low-gradient reaches of clear, cool rivers and streams with sand-mud bottoms or edges.	<b>Unlikely to occur.</b> There is suitable habitat within Fall River within the BSA however this is limited due to downstream dams, however there is no suitable habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Hypomesus transpacificus</i>	delta smelt	T	-	-	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	<b>Absent.</b> This species resides in the Sacramento-San Joaquin Delta and the BSA is outside of this.
<i>Lavinia symmetricus mitrulus</i>	Pit roach	-	-	SSC	Found in the upper Pit River and its tributaries, and tributaries to Goose Lake. Inhabits deep pools, but also in areas of low flows, moderate gradients, warm temperatures, and mats of vegetation.	<b>Potential to occur.</b> There is suitable habitat within Fall River within the BSA, however there is no suitable habitat within the project footprint. There are no CNDDDB occurrences within 2 miles of the BSA.
<i>Mylopharodon conocephalus</i>	hardhead	-	-	SSC	Found in low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Inhabits clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	<b>Potential to occur.</b> There is suitable habitat within Fall River within the BSA, however there is no suitable habitat within the project footprint. There is one CNDDDB occurrence within 2 miles of the BSA.
<b>Amphibians</b>						
<i>Rana pretiosa</i>	Oregon spotted frog	T	-	SSC	Inhabits low swampy areas in mountainous woodlands and wet meadows, springs, small cold streams, and lakes in northeastern California. Needs standing water for breeding.	<b>Unlikely to occur.</b> There is only marginally suitable habitat within and surrounding Fall River within the BSA. There is a CNDDDB occurrence within the project footprint; however, this occurrence is from the 1990's and is considered to be extirpated, and there is no suitable aquatic habitat within the project footprint.
<b>Reptiles</b>						
<i>Emys marmorata</i>	western pond turtle	-	-	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 ft elevation.	<b>Potential to occur.</b> There is suitable habitat within and surrounding Fall River within the BSA. There is one CNDDDB occurrences within 2 miles of the BSA.
<b>Birds</b>						



**Table 2. Special-Status Wildlife Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CDFW		
<i>Accipiter gentilis</i>	northern goshawk	-	-	SSC	Found within, and in the vicinity of, coniferous forest. Uses old nests and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	<b>Unlikely to occur.</b> Suitable habitat including coniferous forests is not present in the BSA, may occasionally pass through while foraging. There are no CNDDB occurrences within 2 miles of the BSA.
<i>Agelaius tricolor</i>	tricolored blackbird	-	T	SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Gregarious year-long resident of California's Central Valley and southern and central coast with limited distribution. Prefers to nest in large freshwater marshes with dense stands of cattails and rushes, but will also build nests concealed in vegetation in grasslands and agricultural pastures near freshwater. Breeding may occur in spring and fall. Feeds mainly on insects and seeds, foraging in open habitats, such as agricultural fields, wetlands, and grasslands.	<b>Potential to occur.</b> There are potential suitable nesting sites within vegetation near the Fall River. Suitable foraging habitat within the BSA includes wetland and grassland habitat. There are no CNDDB occurrences within 2 miles of the BSA but there are multiple CNDDB occurrences along Fall River north of the BSA within 10 miles.
<i>Antigone canadensis tabida</i>	greater sandhill crane	-	T	FP	Inhabits areas surrounding wetlands. Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA. There is one CNDDB occurrence within 2 miles of the BSA.
<i>Empidonax traillii</i>	willow flycatcher	-	E	-	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2000-8000 feet elevation. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA which contains low grasses, sage and a few juniper trees, but may occasionally pass through the BSA. There are no CNDDB occurrences within 2 miles of the BSA.
<i>Haliaeetus leucocephalus</i>	bald eagle	D	E	FP	Often found near coasts, rivers, and large bodies of water with tall, mature trees for perching. Migratory habitat may include mountains and open dry uplands. Overwinters throughout much of California. Opportunistic feeder through both scavenging and predation. Fish make up majority of diet but will take wide variety of food items.	<b>Unlikely to occur.</b> Only marginally suitable habitat is present in the BSA as it lacks tall mature trees. Presence is likely limited to fly overs. There is one CNDDB occurrence within 2 miles of the BSA.
<i>Riparia riparia</i>	bank swallow	-	T	-	Inhabits riparian habitat. Colonial nester; requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	<b>Unlikely to occur.</b> Although some riparian habitat is present within the BSA it lacks suitable banks/cliffs. There is one CNDDB occurrence within 2 miles of the BSA.
<i>Progne subis</i>	purple martin	-	-	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	<b>Unlikely to occur.</b> Suitable habitat is not present in the BSA. There are no CNDDB occurrences within 2 miles of the BSA.
<i>Strix occidentalis caurina</i>	northern spotted owl	T	T	-	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees.	<b>Unlikely to occur.</b> Suitable habitat is not present in the BSA. There are no CNDDB occurrences within 2 miles of the BSA.

**Table 2. Special-Status Wildlife Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CDFW		
Mammals						
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	-	-	SSC	Occurs throughout much of the western U.S., except alpine and sub-alpine habitats. Requires large cavities for roosting, including basal tree cavities, caves, mines, tunnels, buildings, or other man-made structures; hibernation roosts are in similar locations. In summer, females form maternity colonies to raise pups, while males are generally solitary. Hibernates in tight clusters in winter. Nocturnal predator of insects, especially (and potentially almost exclusively) moths. Prefers mesic habitats.	<b>Potential to occur.</b> Marginally suitable habitat is present within the mobile building within the BSA, but there is no suitable roosting habitat within the project footprint. There are no CNDDB occurrences within 2 miles of the BSA.
<i>Gulo gulo</i>	California wolverine	CT	T	FP	Found in the north coast mountains and the Sierra Nevada. Found in a wide variety of high elevation habitats. Needs a water source. Uses caves, logs, burrows for cover and den area. Hunts in more open areas. Can travel long distances.	<b>Unlikely to occur.</b> Suitable habitat is not present in the BSA. There is one CNDDB occurrence within 2 miles of the BSA; however, this occurrence is from 1973.
<i>Lepus americanus klamathensis</i>	Oregon snowshoe hare	-	-	SSC	Inhabits riparian woodland above the yellow pine zone in Canadian and Hudsonian provinces in Northern California. Uses alder and willow thickets in riparian zones, also thickets of young conifers.	<b>Unlikely to occur.</b> Suitable habitat is not present in the BSA. May rarely pass through the BSA. There are no CNDDB occurrences within 2 miles of the BSA.
<i>Pekania pennanti</i>	fisher	-	-	SSC	Solitary, permanent resident of the Sierra Nevada, Cascades, and Klamath Mountains, west to the coast in Washington and Oregon, and south through portions of the North Coast Ranges. Opportunistic predator, primarily of squirrels, mice, hares, and birds. Prefers mature and old-growth coniferous and mixed conifer/hardwood forests with moderate to dense canopy cover at mid to low elevation (but can occupy range of elevations). Favors forests with high structural complexity for diverse nesting and foraging options. Uses cavities in live trees, snags, and downed logs for reproductive dens and rest sites.	<b>Unlikely to occur.</b> Suitable habitat is not present in the BSA. May rarely pass through the BSA. There are no CNDDB occurrences within 2 miles of the BSA.
<i>Taxidea taxus</i>	American badger	-	-	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents.	<b>Potential to occur.</b> There is suitable habitat present in the BSA. There is one CNDDB occurrence within 2 miles of the BSA.
<i>Vulpes vulpes necator</i>	Sierra Nevada red fox	CE	T	-	Historically found from the Cascades down to the Sierra Nevada. Found in a variety of habitats from wet meadows to forested areas. Uses dense vegetation and rocky areas for cover and den sites. Prefers forests interspersed with meadows or alpine fell-fields.	<b>Unlikely to occur.</b> Marginally suitable habitat is present in the BSA, may occasionally pass through. There are no CNDDB occurrences within 2 miles of the BSA.

**Table 2. Special-Status Wildlife Species Identified in Records Searches**

Scientific Name	Common Name	Status <sup>a</sup>			Habitat	Likelihood of Presence within the Biological Study Area (BSA)
		Federal	State	CDFW		

## Sources:

California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database, Biogeographic Data Branch. California Department of Fish and Wildlife. Sacramento, CA. Accessed December 17, 2020. <https://www.wildlife.ca.gov/data/cnddb>.

U.S. Fish and Wildlife Service (USFWS). 2020. Environmental Conservation Online System: Information, Planning and Conservation System (IPaC), 2020. Accessed December 17, 2020. <https://ecos.fws.gov/ipac/>.

<sup>a</sup> Status designations are as follows:

Federal Designations:

(E) Federally Endangered, (T) Federally Threatened, (CE) Candidate Endangered, (CT) Candidate Threatened, (D) Delisted

State Designations:

(E) State Endangered, (T) State Threatened

California Department of Fish and Wildlife (CDFW) Designations:

(SSC) Species of Special Concern, (FP) Fully Protected



## **Appendix B**

# **Construction Emission Calculations**



**Construction Emissions Summary**

Year	ROG lb/day	NOx lb/day	CO lb/day	SO2 lb/day	PM10 Total lb/day	PM2.5 Total lb/day	CO2e lb/day
2021	2.54	24.82	19.11	0.04	18.07	6.21	3854.10

<b>Assumptions:</b>		
<b>1. Duration:</b>	1/1/2021 - 3/31/2021	
<b>2. Equipment - Offroad Equipment Type</b>	Number	Hours/day
Water Truck	1	4
Excavators	1	8
Rubber Tired Dozers	1	8
Tractors/Loaders/Backhoes	1	8
Generator Sets	2	8
<b>3. Vehicles</b>	Roundtrips/day	Miles/roundtrip
Worker commute	9	10
Haul truck <sup>a</sup>	200	20
<b>4. Excavation:</b>	2700 cy.	

<sup>a</sup> 10% of the haul routes were assumed to be unpaved

**Table 5.3-5**  
**SHASTA COUNTY AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS OF SIGNIFICANCE**

Threshold	Emissions (pounds per day)		
	NO <sub>x</sub>	ROG	PM <sub>10</sub>
Level A Thresholds	25	25	80
Level B Thresholds	137	137	137
Source: Shasta County Air Quality Management District.			

The SCAQMD recommends that projects apply Standard Mitigation Measures (SMM) and appropriate Best Available Mitigation Measures (BAMM) when a project exceeds Level A thresholds and that projects apply SMM, BAMM, and special BAMM when a project exceeds Level B thresholds. Projects that cannot mitigate emissions to levels below the Level B thresholds are considered significant.



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Fall River Mills - Shasta County, Winter

Date: 12/15/2020 3:46 PM  
Shasta County, Winter

<b>1.0 Project Characteristics</b>					
<b>1.1 Land Usage</b>					
<b>Land Uses</b>	<b>Size</b>	<b>Metric</b>	<b>Lot Acreage</b>	<b>Floor Surface Area</b>	<b>Population</b>
General Light Industry	100.00	1000 sq ft	2.30	100,000.00	0
<b>1.2 Other Project Characteristics</b>					
<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	82
<b>Climate Zone</b>	3	<b>Utility Company</b>		<b>Operational Year</b>	2022
<b>CO2 Intensity (lb/MW hr)</b>	0	<b>CH4 Intensity (lb/MW hr)</b>	0	<b>N2O Intensity (lb/MW hr)</b>	0
<b>1.3 User Entered Comments &amp; Non-Default Data</b>					
<b>Project Characteristics:</b>					
<b>Land Use:</b>					
<b>Construction Phase:</b>	Project Specific				
<b>Off-road Equipment:</b>	Project Specific				
<b>Grading:</b>	Project Specific				
<b>Trips and VMT:</b>	Project Specific				
<b>On-road Fugitive Dust:</b>	Project Specific				
<b>Vehicle Trips:</b>	No Operation				
<b>Water and Wastewater:</b>	No Operation				
<b>Solid Waste:</b>	No Operation				
<b>Area Coating:</b>	No Operation				
<b>Landscape:</b>	No Operation				
<b>Energy:</b>	No Operation				

Appendix B – Construction Emission  
Calculations

CalEEMod Version: CalEEMod.2016.3.2  
Fall River Mills - Shasta County, Winter

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Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	50000	0
tblAreaCoating	Area_Nonresidential_Interior	150000	0
tblConstructionPhase	NumDays	3.00	64.00
tblConstructionPhase	PhaseEndDate	2/2/2021	3/31/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.96	0.00
tblEnergyUse	T24NG	17.03	0.00
tblGrading	AcresOfGrading	96.00	2.00
tblGrading	MaterialExported	0.00	2,700.00
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation

Appendix B – Construction Emission  
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tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	100.00	90.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	124.00	0.00
tblTripsAndVMT	HaulingTripNumber	338.00	200.00
tblTripsAndVMT	WorkerTripLength	16.80	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	9.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	0.00

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Calculations

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Fall River Mills - Shasta County, Winter

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2.0 Emissions Summary																
2.1 Overall Construction (Maximum Daily Emission)																
Year	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
	lb/day										lb/day					
Unmitigated Construction																
2021	2.5389	24.8210	19.1129	0.0397	16.8840	1.1841	18.0682	5.0923	1.1164	6.2087	0.0000	3,833.7459	3,833.7459	0.8144	0.0000	3,854.1045
Maximum	2.5389	24.8210	19.1129	0.0397	16.8840	1.1841	18.0682	5.0923	1.1164	6.2087	0.0000	3,833.7459	3,833.7459	0.8144	0.0000	3,854.1045
Mitigated Construction																
2021	2.5389	24.8210	19.1129	0.0397	16.8840	1.1841	18.0682	5.0923	1.1164	6.2087	0.0000	3,833.7459	3,833.7459	0.8144	0.0000	3,854.1045
Maximum	2.5389	24.8210	19.1129	0.0397	16.8840	1.1841	18.0682	5.0923	1.1164	6.2087	0.0000	3,833.7459	3,833.7459	0.8144	0.0000	3,854.1045
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
2.2 Overall Operational																
Category	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
	lb/day										lb/day					
Unmitigated Operational																
Area	2.1410	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	0.00006		0.0233
Energy	0.0000	0.0000	0.0000	0.0000		0	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	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	2.1410	9.0000e-005	0.0102	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005		0.0219	0.0219	0.00006	0.0000	0.0233

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<i>Mitigated Operational</i>																
<b>Area</b>	2.1410	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
<b>Energy</b>	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
<b>Mobile</b>	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
<b>Total</b>	<b>2.1410</b>	<b>9.0000e-005</b>	<b>0.0102</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0219</b>	<b>0.0219</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0233</b>
<b>Percent Reduction</b>	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

CalEEMod Version: CalEEMod.2016.3.2  
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3.0 Construction Detail										
Construction Phase										
Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description			
1	Site Preparation	Site Preparation	1/1/2021	3/31/2021	5	64				
Acres of Grading (Site Preparation Phase):		2	Acres of Grading (Grading Phase):		0	Acres of Paving:		0		
Residential Indoor:	0	Residential Outdoor:	0	Striped Parking Area:		0 (Architectural Coating – sqft)				
Non-Residential Indoor:	0	Non-Residential Outdoor:	0							
OffRoad Equipment										
Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor					
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38					
Site Preparation	Excavators	1	8.00	158	0.38					
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40					
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37					
Site Preparation	Generator Sets	2	8.00	84	0.74					
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
Site Preparation	9	9.00	0.00	200.00	10.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT
3.1 Mitigation Measures Construction										

Appendix B – Construction Emission  
Calculations

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Fall River Mills - Shasta County, Winter

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3.2 Site Preparation - 2021																
Category	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
	lb/day										lb/day					
Unmitigated Construction On-Site																
Fugitive Dust					7.5670	0.0000	7.5670	4.1423	0.0000	4.1423			0.0000			0.0000
Off-Road	2.4806	23.9845	18.7414	0.0366		1.1807	1.1807		1.1131	1.1131		3,513.7749	3,513.7749	0.7970		3,533.7001
Total	2.4806	23.9845	18.7414	0.0366	7.5670	1.1807	8.7476	4.1423	1.1131	5.2554		3,513.7749	3,513.7749	0.7970		3,533.7001
Unmitigated Construction Off-Site																
Hauling	0.0238	0.8088	0.1276	2.4600e-003	9.2486	2.9900e-003	9.2516	0.9318	2.8600e-003	0.9347		257.7199	257.7199	0.0153		258.1029
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
Worker	0.0346	0.0278	0.2439	6.3000e-004	0.0685	4.8000e-004	0.0689	0.0182	4.4000e-004	0.0186		62.2511	62.2511	2.0200e-003		62.3015
Total	0.0584	0.8365	0.3715	3.0900e-003	9.3171	3.4700e-003	9.3205	0.9500	3.3000e-003	0.9533		319.9711	319.9711	0.0173		320.4044
Mitigated Construction On-Site																
Fugitive Dust					7.5670	0.0000	7.5670	4.1423	0.0000	4.1423			0.0000			0.0000
Off-Road	2.4806	23.9845	18.7414	0.0366		1.1807	1.1807		1.1131	1.1131	0.0000	3,513.7749	3,513.7749	0.7970		3,533.7001
Total	2.4806	23.9845	18.7414	0.0366	7.5670	1.1807	8.7476	4.1423	1.1131	5.2554	0.0000	3,513.7749	3,513.7749	0.7970		3,533.7001
Mitigated Construction Off-Site																
Hauling	0.0238	0.8088	0.1276	2.4600e-003	9.2486	2.9900e-003	9.2516	0.9318	2.8600e-003	0.9347		257.7199	257.7199	0.0153		258.1029
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
Worker	0.0346	0.0278	0.2439	6.3000e-004	0.0685	4.8000e-004	0.0689	0.0182	4.4000e-004	0.0186		62.2511	62.2511	2.0200e-003		62.3015
Total	0.0584	0.8365	0.3715	3.0900e-003	9.3171	3.4700e-003	9.3205	0.9500	3.3000e-003	0.9533		319.9711	319.9711	0.0173		320.4044

4.0 Operational Detail - Mobile																
4.1 Mitigation Measures Mobile																
Category	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
	lb/day										lb/day					
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
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
4.2 Trip Summary Information																
Land Use		Average Daily Trip Rate									Unmitigated		Mitigated			
		Weekday			Saturday			Sunday			Annual VMT		Annual VMT			
General Light Industry		0.00			0.00			0.00								
Total		0.00			0.00			0.00								
4.3 Trip Type Information																
Land Use		Miles				Trip %				Trip Purpose %						
		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						
General Light Industry		14.70	6.60	6.60	59.00	28.00	13.00	92	5	3						
4.4 Fleet Mix																
Land Use		LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH		
General Light Industry		0.523272	0.032530	0.181768	0.106196	0.031705	0.006508	0.012974	0.094129	0.001340	0.001253	0.005657	0.001294	0.001375		



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5.0 Energy Detail																	
Historical Energy Use:			N														
5.1 Mitigation Measures Energy																	
Category	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	
	lb/day										lb/day						
Natural Gas 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	
Natural Gas 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	
5.2 Energy by Land Use – Natural Gas																	
Unmitigated																	
Land Use	Natural Gas 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
	kBTU/yr	lb/day										lb/day					
General Light Industry	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
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
Mitigated																	
General Light Industry	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
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

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6.0 Area Detail																
6.1 Mitigation Measures Area																
Category	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
	lb/day										lb/day					
Mitigated	2.1410	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	2.1410	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
6.2 Area by Sub-Category																
Sub-Category	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
	lb/day										lb/day					
Unmitigated																
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	2.1410	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Mitigated																
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	2.1410	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

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<b>7.0 Water Detail</b>						
<b>7.1 Mitigation Measures Water</b>						
<b>8.0 Waste Detail</b>						
<b>8.1 Mitigation Measures Waste</b>						
<b>9.0 Operational Offroad</b>						
Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
<b>10.0 Stationary Equipment</b>						
<i>Fire Pumps and Emergency Generators</i>						
Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
<i>Boilers</i>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type	
<i>User Defined Equipment</i>						
Equipment Type			Number			
<b>11.0 Vegetation</b>						

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<b>1.0 Project Characteristics</b>					
<b>1.1 Land Usage</b>					
<b>Land Uses</b>	<b>Size</b>	<b>Metric</b>	<b>Lot Acreage</b>	<b>Floor Surface Area</b>	<b>Population</b>
General Light Industry	100.00	1000 sq ft	2.30	100,000.00	0
<b>1.2 Other Project Characteristics</b>					
<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	82
<b>Climate Zone</b>	3	<b>Utility Company</b>		<b>Operational Year</b>	2022
<b>CO2 Intensity (lb/MW hr)</b>	0	<b>CH4 Intensity (lb/MW hr)</b>	0	<b>N2O Intensity (lb/MW hr)</b>	0
<b>1.3 User Entered Comments &amp; Non-Default Data</b>					
<b>Project Characteristics:</b>					
<b>Land Use:</b>					
<b>Construction Phase:</b>	Project Specific				
<b>Off-road Equipment:</b>	Project Specific				
<b>Grading:</b>	Project Specific				
<b>Trips and VMT:</b>	Project Specific				
<b>On-road Fugitive Dust:</b>	Project Specific				
<b>Vehicle Trips:</b>	No Operation				
<b>Water and Wastewater:</b>	No Operation				
<b>Solid Waste:</b>	No Operation				
<b>Area Coating:</b>	No Operation				
<b>Landscape:</b>	No Operation				
<b>Energy:</b>	No Operation				

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Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	50000	0
tblAreaCoating	Area_Nonresidential_Interior	150000	0
tblConstructionPhase	NumDays	3.00	64.00
tblConstructionPhase	PhaseEndDate	2/2/2021	3/31/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.96	0.00
tblEnergyUse	T24NG	17.03	0.00
tblGrading	AcresOfGrading	96.00	2.00
tblGrading	MaterialExported	0.00	2,700.00
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation

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tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	100.00	90.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	124.00	0.00
tblTripsAndVMT	HaulingTripNumber	338.00	200.00
tblTripsAndVMT	WorkerTripLength	16.80	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	9.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	0.00

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2.0 Emissions Summary																
2.1 Overall Construction (Maximum Daily Emission)																
Year	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
	tons/yr										MT/yr					
Unmitigated Construction																
2021	0.0812	0.7941	0.6113	1.2700e-003	0.474	0.0379	0.5119	0.1563	0.0357	0.1920	0.0000	111.4573	111.4573	0.0236	0.0000	112.0476
Maximum	0.0812	0.7941	0.6113	1.2700e-003	0.474	0.0379	0.5119	0.1563	0.0357	0.1920	0.0000	111.4573	111.4573	0.0236	0.0000	112.0476
Mitigated Construction																
2021	0.0812	0.7941	0.6113	1.2700e-003	0.474	0.0379	0.5119	0.1563	0.0357	0.1920	0.0000	111.4572	111.4572	0.0236	0.0000	112.0475
Maximum	0.0812	0.7941	0.6113	1.2700e-003	0.474	0.0379	0.5119	0.1563	0.0357	0.1920	0.0000	111.4572	111.4572	0.0236	0.0000	112.0475
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
2.2 Overall Operational																
Category	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
	tons/yr										MT/yr					
Unmitigated Operational																
Area	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3906	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

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<i>Mitigated Operational</i>																
Area	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.0000	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3906	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
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



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3.0 Construction Detail																
Construction Phase																
Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description									
1	Site Preparation	Site Preparation	1/1/2021	3/31/2021	5	64										
Acres of Grading (Site Preparation Phase):		2	Acres of Grading (Grading Phase):		0	Acres of Paving:		0								
Residential Indoor:		0	Residential Outdoor:		0	Striped Parking Area:		0 (Architectural Coating – sqft)								
Non-Residential Indoor:		0	Non-Residential Outdoor:		0											
OffRoad Equipment																
Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor											
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38											
Site Preparation	Excavators	1	8.00	158	0.38											
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40											
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37											
Site Preparation	Generator Sets	2	8.00	84	0.74											
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						
Site Preparation	9	9.00	0.00	200.00	10.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT						
3.1 Mitigation Measures Construction																
3.2 Site Preparation - 2021																
Category	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
	tons/yr										MT/yr					
Unmitigated Construction On-Site																
Fugitive Dust					0.2421	0.0000	0.2421	0.1326	0.0000	0.1326	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Off-Road	0.0794	0.7675	0.5997	1.1700e-003		0.0378	0.0378		0.0356	0.0356	0.0000	102.0046	102.0046	0.0231	0.0000	102.5830
Total	0.0794	0.7675	0.5997	1.1700e-003	0.2421	0.0378	0.2799	0.1326	0.0356	0.1682	0.0000	102.0046	102.0046	0.0231	0.0000	102.5830
<b>Unmitigated Construction Off-Site</b>																
Hauling	7.5000e-004	0.0258	3.7900e-003	8.0000e-005	0.2298	9.0000e-005	0.2299	0.0232	9.0000e-005	0.0233	0.0000	7.5856	7.5856	4.1000e-004	0.0000	7.5959
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	1.0500e-003	8.0000e-004	7.7600e-003	0.00002	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8672	1.8672	6.0000e-005	0.0000	1.8687
Total	1.8000e-003	0.0266	0.0116	1.0000e-004	0.2318	1.1000e-004	0.2320	0.0238	1.0000e-004	0.0239	0.0000	9.4527	9.4527	4.7000e-004	0.0000	9.4646
<b>Mitigated Construction On-Site</b>																
Fugitive Dust					0.2421	0.0000	0.2421	0.1326	0.0000	0.1326	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0794	0.7675	0.5997	1.1700e-003		0.0378	0.0378		0.0356	0.0356	0.0000	102.0046	102.0046	0.0231	0.0000	102.5830
Total	0.0794	0.7675	0.5997	1.1700e-003	0.2421	0.0378	0.2799	0.1326	0.0356	0.1682	0.0000	102.0046	102.0046	0.0231	0.0000	102.5830
<b>Mitigated Construction Off-Site</b>																
Hauling	7.5000e-004	0.0258	3.7900e-003	8.0000e-005	0.2298	9.0000e-005	0.2299	0.0232	9.0000e-005	0.0233	0.0000	7.5856	7.5856	4.1000e-004	0.0000	7.5959
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	1.0500e-003	8.0000e-004	7.7600e-003	0.00002	2.0800e-003	2.0000e-005	2.1000e-003	5.5000e-004	1.0000e-005	5.7000e-004	0.0000	1.8672	1.8672	6.0000e-005	0.0000	1.8687
Total	1.8000e-003	0.0266	0.0116	1.0000e-004	0.2318	1.1000e-004	0.2320	0.0238	1.0000e-004	0.0239	0.0000	9.4527	9.4527	4.7000e-004	0.0000	9.4646

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4.0 Operational Detail - Mobile																			
4.1 Mitigation Measures Mobile																			
Category	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			
	tons/yr										MT/yr								
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			
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			
4.2 Trip Summary Information																			
Land Use		Average Daily Trip Rate									Unmitigated			Mitigated					
		Weekday			Saturday			Sunday			Annual VMT			Annual VMT					
General Light Industry		0.00			0.00			0.00											
Total		0.00			0.00			0.00											
4.3 Trip Type Information																			
Land Use		Miles				Trip %					Trip Purpose %								
		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							
General Light Industry		14.70		6.60		6.60		59.00		28.00		13.00		92		5		3	
4.4 Fleet Mix																			
Land Use		LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH					
General Light Industry		0.523272	0.032530	0.181768	0.106196	0.031705	0.006508	0.012974	0.094129	0.001340	0.001253	0.005657	0.001294	0.001375					

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5.0 Energy Detail																	
Historical Energy Use:			N														
5.1 Mitigation Measures Energy																	
Category	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	
	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	
Natural Gas 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	
Natural Gas 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	
5.2 Energy by Land Use – Natural Gas																	
Unmitigated																	
Land Use	Natural Gas 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
	kBTU/yr	tons/yr										MT/yr					
General Light Industry	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																	
General Light Industry	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

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5.3 Energy by Land Use - Electricity					
Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
Unmitigated					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000
Mitigated					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Appendix B – Construction Emission  
Calculations

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6.0 Area Detail																
6.1 Mitigation Measures Area																
Category	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
	tons/yr										MT/yr					
Mitigated	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6.2 Area by Sub-Category																
Sub-Category	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
	tons/yr										MT/yr					
Unmitigated																
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mitigated																
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.3906					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail					
7.1 Mitigation Measures Water					
Category	Total CO2	CH4	N2O	CO2e	
	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					
Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Unmitigated					
General Light Industry	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000
Mitigated					
General Light Industry	0/0	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	Total CO2	CH4	N2O	CO2e	
	MT/yr				
Mitigated	0.0000	0.0000	0.0000	0.0000	
Unmitigated	0.0000	0.0000	0.0000	0.0000	
8.2 Waste by Land Use					
Land Use	Waste Disposed	Total CO2	CH4	N2O	CO2e
	tons	MT/yr			
Unmitigated					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000
Mitigated					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000



Appendix B – Construction Emission  
Calculations

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

10.0 Stationary Equipment						
<i>Fire Pumps and Emergency Generators</i>						
Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
<i>Boilers</i>						
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating		Fuel Type
<i>User Defined Equipment</i>						
Equipment Type			Number			

11.0 Vegetation
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## **Appendix C**

### **Remediation Work Plan**

**Under separate cover, available online at:**

**<https://www.co.shasta.ca.us/index/drm/planning/initial-studies-and-notices-of-completion>**

## **Appendix D**

### **Waste Management and Transportation Plan**

**Under separate cover, available online at:**

**<https://www.co.shasta.ca.us/index/drm/planning/initial-studies-and-notice-of-completion>**