

Draft

YOSEMITE UNDER CANVAS

Environmental Impact Report

Prepared for
Tuolumne County Community Resources
Agency

June 2020



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EXECUTIVE SUMMARY

ES.1 Introduction

As provided by Section 15123 of the California Environmental Quality Act (CEQA) Guidelines (CEQA *Guidelines*), this chapter provides a brief summary of the proposed Under Canvas Yosemite project and its consequences. This chapter is intended to summarize in a stand-alone section the proposed project described in Chapter 2 *Project Description*, the impacts and mitigation measures discussed in Chapter 3 *Environmental Setting, Impacts, and Mitigation Measures*, and the alternatives analysis presented in Chapter 4 *Alternatives to the Proposed Project*.

This Environmental Impact Report (Draft EIR) has been prepared to evaluate the anticipated environmental effects of the project in conformance with the provisions of CEQA and the CEQA *Guidelines*. The lead agency, the County of Tuolumne (County) is the public agency that has the principal responsibility for implementing the project, which includes approving the proposed master plan and other approvals (referred to collectively hereafter as the project or proposed project).

ES.2 Project Location and Surrounding Uses

The project site is east of the town of Groveland and west of Yosemite National Park in southern Tuolumne County and is located on the Ascension Mountain, CA 7.5' U.S. Geological Survey (USGS) Quadrangle (**Figures 2-1** and **2-2**), on a private inholding within the Stanislaus National Forest. It falls within the southeastern portion of Section 26, Township 1 South, Range 18 East, Mount Diablo Baseline and Meridian. The project site is located within unincorporated Tuolumne County, and is comprised of two parcels (APNs 68-120-62 and -63), totaling approximately 80.1 acres. Figure 2-2 shows the zoning for the site. The western parcel is zoned Commercial Recreation (C-K), and the eastern parcel is zoned Commercial Recreation (C-K) and Open Space-1 (O-1).

Access to the site is provided by Hardin Flat Road via SR-120. The site consists of undeveloped land and was previously used for forestry and logging. Adjacent land uses include scattered private residences, recreation facilities, and open space. The nearest building is a Caltrans snow plow garage approximately 1,250 feet north across SR-120 from the nearest proposed project facilities. The nearest residence is approximately 1,300 feet southeast of the nearest proposed project facilities. Elevation in the project site ranges from 3,740 feet above mean sea level in the east to 4,050 feet above mean sea level in the west.

ES.3 Project Description

Figure 2-3 shows the proposed project site plan. Per the requirements of Tuolumne County Code Section 17.68.100, approval of the conceptual plans for the project would require issuance of a site development permit. As shown in Figures 2-2 and 2-3, the bulk of the project's development would occur on the C-K portion of the site, though some development would also occur on the C-K/O-1 portion of the site. Development within the C-K/O-1 portion of the site would require issuance of a use permit, as provided for in the County's Zoning Code (County Code Chapter 17.15.030). Of the 80.1 acres on the overall project site, less than half of that amount would be developed for the proposed use, and the remaining portions would remain undeveloped.

Traditional buildings with concrete foundations are not proposed for the project. However, there would be communal bathrooms, a commercial kitchen, laundry and housekeeping, and a lobby tent with a dining area. These facilities would not be permanent fixtures on the land. Utility improvements to support the camp would include water supply wells, wastewater treatment, and commercial power supplied to the kitchen, laundry, and communal bathrooms.

Project details can be found in Chapter 2, *Project Description*. Principal project elements would consist of the following:

- **Guest Tents:** The project proposes a total of 99 guest tents with 77 suite tents with an in-suite washbasin, shower, and toilet, and twenty-two safari tents with access to a communal bathroom. Four of the suite tents would be Americans with Disabilities Act (ADA) compliant. The approximate tent footprints would range from 200 to 400 square feet. Tents would be made from fire-retardant-treated canvas mounted on non-permanent wooden decks. Decks would typically be mounted on moveable above-ground concrete footings. The tents would be removed at the end of each season in October, with the decks remaining in place.
- **Bathroom Facilities:** To serve the safari tents without in-suite bathroom facilities, two communal bathroom facilities would be provided, which would be manufactured off-site and contain six stalls, with each stall consisting of a toilet, sink, and shower. The units would be prefabricated and mounted on wheels, and would be non-permanent in nature, but would likely remain on-site during the off season, though they could be transported off-site for use at other Under Canvas facilities.
- **Reception/Dining Tent and Support Facilities:** One reception/dining tent would be provided, as well as an adjacent commercial kitchen trailer and a number of support (housekeeping and maintenance) portable storage containers. The project's commercial kitchen would prepare and serve single-service meals to guests staying at the camp. As with the guest tents described previously, the reception/dining tent would be disassembled at the end of each season and stored in an on-site shipping container. The commercial kitchen trailer would be prefabricated and mounted on wheels, and would be non-permanent in nature, but would likely remain on-site during the off season, though it could be transported off-site for use at other Under Canvas facilities. The remaining housekeeping and maintenance support containers would also likely remain on-site during the off-season.
- The project would provide up to three traditional, communal campfire pits interspersed around the project site. The project would provide heating within the guest tents on an as-needed basis through the use of wood heating stoves.

- **Internal Circulation:** Internal circulation would be provided by a main internal access road (Under Canvas Way) and internal cart paths and footpaths. The proposed Under Canvas Way would begin from Hardin Flat Road at a point approximately 500 feet south from the intersection of SR-120 and Hardin Flat Road. A secondary point of access would be provided for emergency purposes on the northwest side of the site via an existing unimproved roadway that connects to Forest Service Road 1S09.
- **Transit Accessibility:** A bus stop for the Yosemite Area Regional Transportation System (YARTS) is proposed on the west side of Hardin Flat Road at the entrance to the Yosemite Under Canvas facility, approximately 800 feet south of the Hardin Flat Road/SR-120 intersection.
- **Potable Water Supply:** Drinking and potable water at the camp would be provided by groundwater source wells. The source would be developed as a Public Water System, and classified as a Transient Non-Community water system, as defined in California Health and Safety Code Section 116275. Water distribution would include storage cisterns, small diameter distribution lines, re-pressure pumps, source development, and services to the laundry, lobby tent, bath units, and deluxe/suite tents.
- **Wastewater Management:** Wastewater would be treated on-site through the use of two separated systems. Sewer mains would be constructed to convey the wastewater to the two systems, which would be located near the southeastern area of the site. Wastewater System #1 would be a domestic strength wastewater system which would receive primary treatment from code compliant septic tanks, and would be delivered to gravel filled leach trenches via pressure dosing. Wastewater System #2 would be a hybrid system to manage the high strength food facility wastewater, and the domestic strength wastewater from the laundry facilities.
- **Electricity and Lighting:** Electric power for the camp would be provided by a local utility company, but most electricity demand would be met using low voltage solar systems. Lighting for the lobby tent, common areas, and guest tents would be low voltage solar lighting. All light fixtures and the use thereof would be International Dark Sky Association (IDA) compliant, while still providing safety and guidance for guests. To provide electric power to the site during power outages, a 70 kW propane-powered standby generator would be installed. The generator would be placed inside its own enclosure for protection against the elements and for noise abatement purposes.
- **Solid Waste Management:** Trash from the guest tents would be collected daily as part of normal housekeeping activities. All solid waste produced at the site, particularly food waste, would be stored in locking wildlife-resistant containers and then removed from the site by a commercial hauler for disposal at a permitted landfill.
- **Timber Management and Wildfire Prevention:** Development on the site would be preceded by fuel reduction operation to remove standing and dead trees that pose a threat to users. Fuel treatment would involve mastication of standing dead snags and surface fuels. The project development plan would also involve conversion of greater than three acres of timberland. Both the fuel reduction efforts and conversion activities would meet the definition of timber operations as defined in the Forest Practice Act and will require development of a Timber Harvest Plan (THP). The THP would be subject to approval by CAL FIRE. In addition to the fuels reduction and road construction that would be undertaken as part of the THP, the site would be subject to ongoing fuel and vegetation management treatments as prescribed in the project's Wildfire Mitigation Plan. The plan would be subject to review and approval by the Tuolumne County Fire Department (TCFD) in cooperation with CAL FIRE.

- Operations: The operational season for the site would generally be from mid-March to mid-October, depending on weather conditions. The average occupancy at existing Under Canvas facilities is approximately 2.5 guests per tent.

ES.4 Project Objectives

CEQA *Guidelines* Section 15124(b) requires the description of the project in an EIR to state the objectives sought by the project.

A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.

The underlying purpose of the project is to provide seasonal tent camping with added amenities, including tents with beds, bathroom facilities, and a dining facility. The project objectives are:

- 1) Help meet the demand for lodging facilities near Yosemite National Park and surrounding outdoor recreational resources.
- 2) Provide a camping experience with full-service amenities for visitors to Yosemite National Park and the surrounding area in an outdoor setting.
- 3) Assist the County in meeting its General Plan goals and policies, particularly those related to natural resources, public safety, natural hazards, and economic development.
- 4) Plan for land use compatibility with adjacent landowners and land use activities through effective placement, orientation, and screening of project facilities.
- 5) Reduce hazardous wildfire fuel and timber conditions on the project site.
- 6) Provide on-site infrastructure improvements relating to potable water delivery, wastewater management, and drainage.
- 7) Develop a financially sustainable project that can fund the construction and operation of the facilities and services that are needed to serve the project.

ES.5 Proposed Project Impacts

As provided by the CEQA *Guidelines* Section 15123(b)(1), an EIR must provide a summary of the impacts, mitigation measures and significant impacts after mitigation for a proposed project. This information is presented in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, of this EIR, and summarized in **ES-1** at the end of this chapter. The proposed project would result in no significant and unavoidable impacts.

ES.6 Alternatives to the Proposed Project

Chapter 4, *Alternatives*, analyzes a range of reasonable alternatives to the proposed project, including the Reduced Project Alternative (Alternative 1), the Basic Services Campground Alternative (Alternative 2), and the No Project/No Development Alternative (Alternative 3). A number of other possible alternatives were also considered but were rejected from further evaluation because they offered no clear environmental benefits or did not meet the project applicant's goals and objectives for the type of recreational experience desired. These included an alternative site, a hotel/motel complex, a traditional commercial campground, and a destination RV/cabin resort.

The analysis of the alternatives is summarized and compared in Chapter 4, which provides a summary of impact levels within all environmental topic areas. Overall, the analysis shows that the Reduced Project Alternative would slightly lessen some of the project's less-than-significant effects, but would not meet the project objectives as well as the proposed project. The No Project Alternative would avoid all of the project's effects, but would create a significant and unavoidable impact with respect to wildfire risk. It would also not meet any of the project objectives.

Based on the evaluation described in Chapter 4, the No Project Alternative would be the most environmentally superior alternative with the fewest environmental impacts, though it would create a new potentially significant and unavoidable impact with respect to wildfire. However, the No Project Alternative would not meet any of the basic objectives of the project.

CEQA requires that a second alternative be identified when the "No Project" alternative is the environmentally superior alternative (CEQA *Guidelines*, Section 15126.6(e)). Therefore, the Reduced Project would be the Environmentally Superior Alternative for the purpose of this analysis.

ES.7 Comments on Initial Study and Notice of Preparation

The County previously circulated a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the project (State Clearinghouse No. 2019029073). The Draft IS/MND public review and comment period was February 14, 2019 through April 2, 2019. Based on responses and comments received on the IS/MND, the County decided to prepare an EIR for the project. The Draft IS/MND and the comments received on the document during the public review period are included in **Appendix A** of this EIR.

On June 18, 2019, the County issued a Notice of Preparation (NOP) of the EIR to governmental agencies and organizations and persons interested in the project (the NOP is included in Appendix B of this EIR). The NOP public review and comment period was June 19, 2019 through July 18, 2019. The County sent the NOP to agencies with statutory responsibilities in connection with the project with the request for input on the scope and content of the environmental information that should be addressed in the EIR. The County held a scoping meeting on Thursday, June 27, 2019, at the Groveland Community Hall. Public agencies, organizations, and interested members of the public were invited to attend this meeting and present verbal or written comments on the project. In addition to the comments made at the public

scoping meeting, the County received 29 written comment letters regarding the NOP (see Appendix B), including five comment letters from public agencies, six comment letters from organizations, and eighteen comment letters from individuals or businesses.

ES.8 Areas of Controversy

Section 15123(b)(2) of the CEQA *Guidelines* requires that an EIR summary identify areas of controversy known to the lead agency, including those issues raised by other agencies and the public. Issues raised during the public review periods for the Draft IS/MND and the NOP included the following items that could be issues of controversy:

- The EIR should evaluate impacts regarding public services (fire protection, ambulances, and law enforcement) and their associated response times;
- The EIR should address the limited affordable housing options in the area and how this will be impacted by increased Under Canvas employees;
- The EIR should address recreational impacts on Yosemite National Park;
- Further studies should be conducted to confirm there is adequate water supply at the project site;
- The EIR should address the location of the septic field as it is upstream of the Tuolumne River and could impact water quality.
- The EIR should evaluate impacts related to air quality as a result of camp fires at the project site;
- The EIR should evaluate traffic impacts, specifically increased entries onto SR-120 and provide valid mitigation to decrease traffic congestion;
- The EIR should address the project's impact to wildlife in the vicinity;
- The EIR should consider impacts associated with aesthetics and light pollution;
- The EIR should evaluate the increased risk of wildfire as a result of the project;
- The EIR should address cumulative impacts, specifically relating to the Terra Vi development.
- The EIR should include a finalized site plan for the project site, including tent, leachfield, and pool locations.
- The County should identify and evaluate several alternatives to the project, including a different project site.

ES.9 Issues to be Resolved

Section 15123(b)(3) of the CEQA *Guidelines* requires that an EIR present the issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects. The major issues to be resolved for the proposed project include decisions by the County of Tuolumne, as the Lead Agency, as to whether:

- This EIR adequately describes the environmental impacts of the proposed project;
- Recommended mitigation measures should be adopted or modified;
- Additional mitigation measures need to be applied to the proposed project; and
- The proposed project should or should not be approved.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.1 Aesthetics		
Impact 3.1-1: Implementation of the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.	None required	Less than significant
Impact 3.1-2: Implementation of the project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	None required	Less than significant
Impact 3.1-3: Implementation of the project, in conjunction with other development, would not substantially degrade the existing visual character or quality of public views of the project area.	None required	Less than significant
3.2 Agricultural and Forestry Resources		
Impact 3.2-1: Implementation of the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.	None required	Less than significant
Impact 3.2-2: Implementation of the proposed project, in conjunction with other development, would not result in the loss of forest land or conversion of forest land to non-forest use.	None required	Less than significant
3.3 Air Quality		
Impact 3.3-1: Implementation of the project would not conflict with or obstruct implementation of the applicable air quality plan.	None required	Less than significant
Impact 3.3-2: Implementation of the project would not 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.	None required	Less than significant
Impact 3.3-3: Implementation of the project would not expose sensitive receptors to substantial pollutant concentrations.	None required	Less than significant
Impact 3.3-4: Implementation of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	None required	Less than significant
Impact 3.3-5: Implementation of the project, in conjunction with other development, would not conflict with or obstruct implementation of the applicable air quality plan.	None required	Less than significant

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.3 Air Quality (cont.)		
Impact 3.3-6: Implementation of the project, in conjunction with other development, would not 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.	None required	Less than significant
Impact 3.3-7: Implementation of the project, in conjunction with other development, would not expose sensitive receptors to substantial pollutant concentrations.	None required	Less than significant
Impact 3.3-8: Implementation of the project, in conjunction with other development, would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	None required	Less than significant
3.4 Biological Resources		
Impact 3.4-1: Implementation of the project could result in the loss of potential nesting habitat for special-status bird species and other sensitive and/or protected bird species.	<p>Mitigation Measure 3.4-1: If vegetation removal begins during the nesting season (February 1 to September 15), a qualified biologist shall conduct a preconstruction survey for active nests in suitable nesting habitat within 500 feet of the construction area for nesting raptors and migratory birds (¼ mile for northern goshawk and California spotted owl). Areas off the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. The survey shall be conducted by a qualified biologist no more than seven days prior to the onset of construction. If no active nests are identified during the pre-construction survey, no further mitigation is necessary. If construction activities begin prior to February 1, it is assumed that no birds would nest in the project site during active construction activities and no pre-construction surveys are required. If at any time during the nesting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.</p> <p>a. If active nests are found during the survey, the project proponent shall implement mitigation measures to ensure that the species would not be adversely affected, which would include establishing a no-work buffer zone as, approved by CDFW, around the active nest.</p> <p>b. Measures shall include, but would not be limited to:</p> <ol style="list-style-type: none"> 1. For trees with active nests, the project proponent shall conduct any tree removal activities required for project construction outside of the migratory bird breeding season (February 1 through September 15). 	Less than significant with mitigation

**TABLE S-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT**

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.4 Biological Resources (cont.)		
3.4-1 (cont.)	<ol style="list-style-type: none"> 2. If active nests are found on or within 500 feet of the project site (¼ mile for northern goshawk and California spotted owl), then the project proponent shall establish no disturbance buffers for active nests of 250 feet for migratory bird species, 500 feet for non-listed raptor species, and ¼-mile for northern goshawk and California spotted owl, until the breeding season has ended, or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Depending on the conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. Nests that are inaccessible due to private property restrictions shall be monitored using binoculars from the nearest vantage point. Construction activities may be halted at any time if, in the professional opinion of the biologist, construction activities are affecting the breeding effort. 3. Depending on conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined on a case-by-case basis), the nest(s) shall be monitored by a qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the nest, the biologist shall immediately inform the construction manager and the project proponent shall notify CDFW. The construction manager shall stop construction activities within the buffer until the nest is no longer active. Completion of the nesting cycle shall be determined by a qualified biologist. If construction begins outside of the migratory bird breeding season (February 1 through September 15), then the project proponent is permitted to continue construction activities throughout the breeding season. 	
Impact 3.4-2: Implementation of the project could result in impacts to special-status bat species.	Mitigation Measure 3.4-2: For construction activities expected to occur during the breeding season of special-status bat species (April 1 to August 31), a field survey shall be conducted by a qualified biologist to determine whether active roosts are present onsite or within 100 feet of the project boundaries. Areas off the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. Field surveys shall be conducted early in the breeding season before any construction activities begin, when bats are establishing maternity roosts but before pregnant females give birth (April through early May). If no roosting bats are found, then no further mitigation is required. If roosting bats are found, then disturbance of the maternity roosts shall be avoided by halting construction until the end of the breeding season or a qualified bat biologist excludes the roosting bats in consultation with CDFW. If construction activities begin prior to April 1, it is assumed that no bats would roost in the project site during active construction activities and no pre-construction surveys are required. If at any time during the roosting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.	Less than significant with mitigation

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.4 Biological Resources (cont.)		
Impact 3.4-3: Implementation of the project would not result in a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	None required	Less than significant
Impact 3.4-4: Construction of the project could result in 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.	Mitigation Measure 3.4-3: The project proponent shall demonstrate that there is no net loss of wetlands and other waters of the U.S. and state protected waters/wetlands. To ensure this, wetland mitigation shall be developed as a part of the permitting process as described above. Mitigation shall be provided prior to construction related impacts on the existing waters/wetlands. The exact mitigation ratio would be determined in consultation with the USACE, CDFW, and/or RWQCB based on the type and value of the waters/wetlands affected by the project, but the project shall compensate for impacted waters/wetlands at a ratio no less than 1:1. Compensation shall take the form of preservation or creation in accordance with USACE and/or CDFW mitigation requirements, as required under project permits. Preservation and creation would occur offsite through purchasing credits at a USACE, CDFW, and/or RWQCB-approved mitigation bank.	Less than significant with mitigation
Impact 3.4-5: Implementation of the project would not 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.	None required	Less than significant
Impact 3.4-6: Implementation of the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	None required	Less than significant
Impact 3.4-7: Implementation of the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	None required	Less than significant
Impact 3.4-8: Implementation of the project, in conjunction with other development, could contribute to the cumulative harm to, or loss of nesting habitat for, special-status bird species and other sensitive and/or protected bird species.	Implement Mitigation Measure 3.4-1 , above	Less than significant with mitigation
Impact 3.4-9: Implementation of the project, in combination with other cumulative development, could contribute to the cumulative loss of habitat, or impacts to bat species.	Implement Mitigation Measure 3.4-2 , above	Less than significant with mitigation

TABLE S-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.4 Biological Resources (cont.)		
Impact 3.4-10: Implementation of the project, in combination with other cumulative development, could contribute to the cumulative loss of state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Implement Mitigation Measure 3.4-3 , above	Less than significant with mitigation
Impact 3.4-11: Implementation of the project, in combination with other cumulative development, would not contribute to the cumulative interference 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.	None required	Less than significant
3.5 Hydrology, Water Quality/Utilities and Service Systems		
Impact 3.5-1: Implementation of the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	None required	Less than significant
Impact 3.5-2: Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None required	Less than significant
Impact 3.5-3: Implementation of the proposed project would not 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.	None required	Less than significant
Impact 3.5-4: Implementation of the proposed project would not occur in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	None required	Less than significant
Impact 3.5-5: Implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None required	Less than significant
Impact 3.5-6: Implementation of the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	<p>Mitigation Measure 3.5-1: Prior to construction, the applicant shall acquire a will-serve letter from PG&E. The procedures to acquire PG&E approval to connect to their electrical grid are summarized Below (PG&E, undated):</p> <ol style="list-style-type: none"> 1. <u>Application package</u>: An application package that includes the following shall be submitted to PG&E: <ol style="list-style-type: none"> a. Site plan b. Improvement plans 	Less than significant with mitigation

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.5 Hydrology, Water Quality/Utilities and Service Systems (cont.)		
3.5-6 (cont.)	<ul style="list-style-type: none"> c. Architectural plans (elevation plans, for example, to review meter location) d. Project-approval and permit conditions that need to be incorporated in utility design and construction activities. This may include requirements and conditions for onsite activities, as well as to offsite improvements, along with relevant permits and project approvals. e. Additional load details beyond those listed in application. f. Electrical and mechanical plans g. Acquire permits and approvals from appropriate county and other regulatory agencies. 2. <u>Field meeting</u>: Conduct a field meeting with PG&E to review the project needs. Topics may include project conditions, engineering, service routes, meter locations, rights-of-way, tree pruning, construction responsibilities, temporary construction power needs, date the service is needed, preliminary costs, and rates. 3. <u>Engineering</u>: During the engineering phase, PG&E identify their costs, prepare construction drawings, order critical materials with long lead times and coordinate service engineering with other utilities. 4. <u>Billing, Contract, and Right-Of-Way</u>: Once PG&E receives all contracts and payments, and all requirements for rights-of-way, permits and disclosed conditions (refer to Step 1) are met, PG&E will schedule construction of the electrical connection. 5. <u>Construction</u>: Under Canvas shall complete all of the construction responsibilities Under Canvas agreed to before PG&E will complete their part of the gas and electric service. A PG&E representative may set up a pre-construction meeting to review construction responsibilities in more detail and discuss final scheduling. 6. <u>Meter Set</u>: Once construction is complete, Under Canvas shall contact PG&E to install (set) the electric meter. 	
Impact 3.5-7: Implementation of the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	None required	Less than significant
Impact 3.5-8: Implementation of the proposed project would not 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.	None required	No impact
Impact 3.5-9: Implementation of the proposed project would not 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.	None required	Less than significant

TABLE S-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.5 Hydrology, Water Quality/Utilities and Service Systems (cont.)		
Impact 3.5-10: Implementation of the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	None required	No impact
Impact 3.5-11: Implementation of the proposed project, in conjunction with other development, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	None required	Less than significant
Impact 3.5-12: Implementation of the proposed project, in conjunction with other development, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None required	Less than significant
Impact 3.5-13: Implementation of the proposed project, in conjunction with other development, would not 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.	None required	Less than significant
Impact 3.5-14: Implementation of the proposed project, in conjunction with other development, would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None required	No Impact (Construction) Less than Significant (Operation)
Impact 3.5-15: Implementation of the proposed project, in conjunction with other development, would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Implement Mitigation Measure 3.5-1 , above	Less than significant with mitigation
Impact 3.5-16: Implementation of the proposed project, in conjunction with other development, would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	None required	Less than significant
Impact 3.5-17: Implementation of the proposed project, in conjunction with other development, would not 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.	None required	Less than significant

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation								
3.6 Noise										
Impact 3.6-1: Implementation of the project would not result in 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.	<p>Mitigation Measure 3.6-1(a): The noise levels generated by activities on the project site must adhere to the following General Plan exterior noise limits as measured at the receiving property line:</p> <table border="1"> <thead> <tr> <th rowspan="2">Zoning Classification of Receiving Property</th> <th colspan="2">Noise Level (dB) of Sound Source</th> </tr> <tr> <th>Daytime (7 a.m. to 10 p.m.)</th> <th>Nighttime (10 p.m. to 7 a.m.)</th> </tr> </thead> <tbody> <tr> <td>MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP</td> <td>50 L_{eq}. (1 hour)</td> <td>45 L_{eq}. (1 hour)</td> </tr> </tbody> </table>	Zoning Classification of Receiving Property	Noise Level (dB) of Sound Source		Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)	MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP	50 L _{eq} . (1 hour)	45 L _{eq} . (1 hour)	Less than significant with mitigation
Zoning Classification of Receiving Property	Noise Level (dB) of Sound Source									
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)								
MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP	50 L _{eq} . (1 hour)	45 L _{eq} . (1 hour)								
Impact 3.6-2: Implementation of the project would not result in generation of excessive groundborne vibration or groundborne noise levels.	None required	Less than significant								
Impact 3.6-3: Implementation of the project would not expose people residing or working in the project area to excessive noise levels 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.	None required	Less than significant								
Impact 3.6-4: Implementation of the project, in conjunction with other development, would not result in 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.	None required	Less than significant								
Impact 3.6-5: Implementation of the project, in conjunction with other development, would not result in generation of excessive groundborne vibration or groundborne noise levels.	None required	Less than significant								
Impact 3.6-6: Implementation of the project, in conjunction with other development, would not expose people residing or working in the project area to excessive noise levels 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.	None required	No impact								

TABLE S-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.7 Public Services and Recreation		
Impact 3.7-1: Implementation of the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.	None required	Less than significant
Impact 3.7-2: Implementation of the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.	None required	Less than significant
Impact 3.7-3: Implementation of the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park or recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.	None required	Less than significant
Impact 3.7-4: Implementation of the project, in conjunction with other development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.	None required	Less than significant
Impact 3.7-5: Implementation of the project, in conjunction with other development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.	None required	Less than significant
Impact 3.7-6: Implementation of the project, in conjunction with other development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.	None required	Less than significant

TABLE ES-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.8 Transportation		
Impact 3.8-1: Implementation of the project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Mitigation Measure 3.8-1: During periods of peak visitation, Under Canvas staff shall coordinate with the Yosemite Area Regional Transportation System (YARTS) to identify transit runs where transit demand may exceed capacity. On those dates, and for those runs where such an exceedance is expected, Under Canvas staff will recommend alternative departure times for guests to help avoid overcrowding during the identified runs.	Less than significant with mitigation
Impact 3.8-2: Implementation of the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	None required	Less than significant
Impact 3.8-3: Implementation of the project would not substantially increase hazards due to a geometric design or incompatible uses.	None required	Less than significant
Impact 3.8-4: Implementation of the project would not result in inadequate emergency access.	None required	Less than significant
Impact 3.8-5: Implementation of the project, in conjunction with other development, would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Implement Mitigation Measure 3.8-1 , above	Less than significant with mitigation
Impact 3.8-6: Implementation of the project, in conjunction with other development, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	None required	Less than significant
Impact 3.8-7: Implementation of the project, in conjunction with other development, would not substantially increase hazards due to a geometric design or incompatible uses.	None required	Less than significant
Impact 3.8-8: Implementation of the project, in conjunction with other development, would not result in inadequate emergency access.	None required	Less than significant
3.9 Wildfire		
Impact 3.9-1: Implementation of the project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	None required	Less than significant
Impact 3.9-2: Implementation of the project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	None required	Less than significant
Impact 3.9-3: Implementation of 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.	None required	Less than significant

TABLE S-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UNDER CANVAS YOSEMITE PROJECT

Impacts	Project Design Features and Mitigation Measures	Significance Including after Project Design Features and Mitigation
3.9 Wildfire (cont.)		
Impact 3.9-4: Implementation of the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	None required	Less than significant
Impact 3.9-5: Implementation of the project, in conjunction with other development, would not substantially impair an adopted emergency response plan or emergency evacuation plan.	None required	Less than significant
Impact 3.9-6: Implementation of the project, in conjunction with other development, would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	None required	Less than significant
Impact 3.9-7: Implementation of the project, in conjunction with other development, 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.	None required	Less than significant
Impact 3.9-8: Implementation of the project, in conjunction with other development, would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	None required	Less than significant

CHAPTER 1

Introduction

This Environmental Impact Report (EIR) has been prepared pursuant to the California Environmental Quality Act (CEQA), California Public Resources Code Sections 21000, et seq., and the Guidelines for the California Environmental Quality Act (CEQA Guidelines), California Code of Regulations, Title 14, Sections 15000, et seq., to disclose the potential environmental consequences of implementing the proposed Yosemite Under Canvas Project. As required under CEQA, the EIR evaluates and describes potentially significant environmental impacts, identifies mitigation measures to avoid or reduce the significance of potential impacts, and evaluates the comparative effects of potentially feasible alternatives to the project.

1.1 Project Overview

Under Canvas Inc. (Under Canvas or project proponent) is proposing the Yosemite Under Canvas Project (project), which is a 99-tent campground with supporting facilities located adjacent to State Route 120 (SR-120) in the vicinity of Hardin Flat, east of the community of Groveland and west of Yosemite National Park, in Tuolumne County, California. Yosemite Under Canvas is a transient tent (no fixed structures) camp for guests to stay March to October as weather allows. Under Canvas specializes in camps with added amenities and currently has eight operational camps within the United States, responding to increased demand for camping accommodations where the host provides all the provisions necessary to camp in a particular location. Under Canvas camps provide guests with canvas tents, beds, bathroom facilities, meals, and community fire pits. Potable water and sanitary sewer would be provided by on-site systems owned and operated by Under Canvas. A total of 99 tents are proposed for the Yosemite Under Canvas camp along with an office/guest check-in tent, commercial kitchen, communal bathrooms, and a number of support tents.

1.2 Purpose and Use of this EIR

CEQA requires a public agency to prepare an EIR describing the environmental effects of a project before a public agency can approve a project that may have potentially significant, adverse physical effects on the environment. The EIR is a public information document that identifies and evaluates potential environmental impacts of a project, recommends mitigation measures to lessen or eliminate significant adverse impacts, and examines feasible alternatives to the project. The information contained in the EIR must be reviewed and considered by the Tuolumne County Community Development Department and by any responsible agencies (as defined in CEQA) prior to a decision to approve, disapprove, or modify the project.

1.3 CEQA Environmental Review

The CEQA Guidelines define the role and standards of adequacy of an EIR as follows:

- **Informational Document.** An EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effect(s) of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency (CEQA Guidelines Section 15121[a]).
- **Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure (CEQA Guidelines Section 15151).

CEQA Guidelines Section 15382 defines a significant effect on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project...” Therefore, in identifying the significant impacts of the project, this EIR describes the potential for the project to result in substantial physical effects within the area affected by the project, and identifies mitigation measures that would avoid or reduce the magnitude of those effects. See Section 3.0, *Introduction to the Analysis*, for further description of the approach to analyzing environmental impacts and identifying mitigation measures presented in this EIR.

1.4 Environmental Review

1.4.1 Draft Initial Study/Mitigated Negative Declaration

The County previously circulated a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the project (State Clearinghouse No. 2019029073). The Draft IS/MND public review and comment period was February 14, 2019 through April 2, 2019. Based on responses and comments received on the IS/MND, the County decided to prepare an EIR for the project. The Draft IS/MND and the comments received on the document during the public review period are included in **Appendix A**.

1.4.2 EIR Scoping

On June 18, 2019, the County issued a Notice of Preparation (NOP) of the EIR to governmental agencies and organizations and persons interested in the project (the NOP is included in **Appendix B**). The NOP public review and comment period was June 19, 2019 through July 18, 2019. The County sent the NOP to agencies with statutory responsibilities in connection with the project with the request for input on the scope and content of the environmental information that should be addressed in the EIR. The County held a scoping meeting on Thursday, June 27, 2019,

at the Groveland Community Hall. Public agencies, organizations, and interested members of the public were invited to attend this meeting and present verbal or written comments on the project. In addition to the comments made at the public scoping meeting, the County received 29 written comment letters regarding the NOP (see **Appendix B**), including five comment letters from public agencies, six comment letters from organizations, and eighteen comment letters from individuals or businesses.

Comments from the public scoping meeting and written comments generally raised issues such as:

- The EIR should evaluate impacts regarding public services (fire protection, ambulances, and law enforcement) and their associated response times;
- The EIR should address the limited affordable housing options in the area and how this will be impacted by increased Under Canvas employees;
- The EIR should address recreational impacts on Yosemite National Park;
- Further studies should be conducted to confirm there is adequate water supply at the project site;
- The EIR should address the location of the septic field as it is upstream of the Tuolumne River and could impact water quality.
- The EIR should evaluate impacts related to air quality as a result of camp fires at the project site;
- The EIR should evaluate traffic impacts, specifically increased entries onto SR-120 and provide valid mitigation to decrease traffic congestion;
- The EIR should address the project's impact to wildlife in the vicinity;
- The EIR should consider impacts associated with aesthetics and light pollution;
- The EIR should evaluate the increased risk of wildfire as a result of the project;
- The EIR should address cumulative impacts, specifically relating to the Terra Vi development.
- The EIR should include a finalized site plan for the project site, including tent, leachfield, and pool locations.
- The County should identify and evaluate several alternatives to the project, including a different project site.

The scope of this EIR includes environmental issues for which the project may trigger significant impacts, as determined through preparation of the Draft IS/MND, comments received during the public and agency review of the Draft IS/MND, responses to the NOP, scoping meeting feedback, and discussions among the public, consulting staff, other agencies, and the County. This process identified the potential for significant impacts associated with the project in the following technical areas:

- Aesthetics

- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Hydrology and Water Quality
- Noise
- Public Services and Recreation
- Traffic and Transportation
- Utilities and Service Systems
- Wildfire

This EIR evaluates the direct, indirect, and cumulative impacts that could result from implementation of the project in these issue areas in accordance with CEQA in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.

Pursuant to CEQA and CEQA Guidelines Section 15128, a lead agency need not provide a detailed discussion of the environmental effects that would not be significant, and may instead provide a brief statement of dismissal for applicable environmental issues. Upon review of the project, the County determined that due to the physical characteristics of the project site and the project as proposed, several environmental issues would involve less-than-significant impacts and therefore would not require further analysis within the Draft EIR. Brief rationales for the determination that the issues listed below do not require further consideration in this EIR are provided in Section 3.0.3 of this EIR, *Issues Previously Determined to be Less Than Significant*.

- Cultural and Tribal Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials (Not Including Wildfire Hazards)
- Land Use and Planning
- Mineral Resources
- Population and Housing

1.4.3 Public Review

The Draft EIR is available for public review and comment as set forth in the Notice of Availability circulated by the County. During the review and comment period, written comments (including email) regarding the Draft EIR may be submitted to the County at the address below.

Natalie Rizzi, Planner
Tuolumne County Community Development Department
2 S. Green Street
Sonora, CA 95370
nrizzi@co.tuolumne.ca.us

The Draft EIR, Notice of Availability, and other supporting documents, such as technical reports prepared as part of the EIR process, are available for public review at the offices of the Tuolumne County Community Development Department, 2 South Green Street, Sonora, CA 95370 and on the County's web site at <https://www.tuolumnecounty.ca.gov/1204/Under-CanvasHarding-Flat-LLC>.

1.4.4 Final EIR and EIR Certification

Following the public review and comment period for the Draft EIR, the County will prepare responses that address all substantive written and oral comments on the Draft EIR's environmental analyses received within the specified review period. The responses and any other revisions to the Draft EIR initiated by County staff will be prepared as a Final EIR document. The Draft EIR and its Appendices, together with the Final EIR, will constitute the EIR for the project.

1.4.5 Mitigation Monitoring and Reporting Plan

Throughout this EIR, mitigation measures are clearly identified, where applicable, and presented in language that will facilitate establishment of a Mitigation Monitoring and Reporting Plan (MMRP). As required under CEQA, a MMRP will be prepared and presented to the County Board of Supervisors at the time of certification of the Final EIR for the project and will identify the specific timing and roles and responsibilities for implementation of adopted mitigation measures.

1.5 Organization of the Draft EIR

The *Executive Summary* includes a brief project description and a summary table that lists the environmental impacts, proposed mitigation measures, and the level of significance after mitigation. Detailed analysis of these impacts and mitigation measures is provided in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. The Executive Summary also provides a summary of the alternatives to the project.

This *Introduction* (Chapter 1) presents an overview of the process by which this EIR will be reviewed and used by the decision-makers in their consideration of the project.

The *Project Description* (Chapter 2) describes the project location and boundaries; lists the project objectives; and provides a general description of the technical, economic, and environmental characteristics of the project. This chapter also includes a list of required approvals for the project and other agencies that may be responsible for approving aspects of the project.

The *Environmental Setting, Impacts, and Mitigation Measures* (Chapter 3) contains a description of the environmental setting (existing physical environmental conditions), the regulatory framework, and the environmental impacts (including cumulative impacts) that could result from the project. It includes the thresholds of significance used to determine the significance of adverse

environmental effects. This chapter also identifies the mitigation measures that would avoid or substantially lessen these significant adverse impacts. The impact discussions disclose the significance of each impact both with and without implementation of mitigation measures.

Alternatives (Chapter 4) evaluates a range of reasonable alternatives to the project and identifies an environmentally superior alternative, consistent with the requirements of CEQA. The alternatives analysis evaluates each alternative's ability to meet the project objectives and its ability to reduce environmental impacts.

Other Statutory Sections (Chapter 5) presents growth-inducing effects, significant irreversible changes, and a summary of cumulative impacts, significant and unavoidable environmental impacts, and effects found to be less than significant.

Report Preparation (Chapter 6) identifies the authors of the EIR. Persons and documents consulted during preparation of the EIR are listed at the end of each analysis section.

Appendices. The appendices include environmental scoping information and technical reports and data used in the preparation of the Draft EIR. These documents are included on CD at the back of the Draft EIR.

CHAPTER 2

Project Description

2.1 Project Overview

Under Canvas Inc. (Under Canvas or project applicant) is proposing the Yosemite Under Canvas Project (project), which is a 99-tent campground with supporting facilities located adjacent to State Route 120 (SR-120) in the vicinity of Hardin Flat, east of the community of Groveland and west of Yosemite National Park, in Tuolumne County, California. Yosemite Under Canvas is a transient tent (no fixed structures) camp for guests to stay March to October as weather allows. Under Canvas Inc. specializes in camps with added amenities and currently has eight operational camps within the United States, responding to the increased demand for camping accommodations where the host provides all the provisions necessary to camp in a particular location. Under Canvas camps provide guests with canvas tents, beds, bathroom facilities, meals, and community fire pits. Potable water and sanitary sewer would be provided by on-site public systems owned and operated by Under Canvas. A total of 99 tents are proposed for the Yosemite Under Canvas camp along with an office/guest check-in tent, commercial kitchen, communal bathrooms, and a number of support tents.

2.2 Project Objectives

CEQA Guidelines Section 15124(b) requires the project description in an EIR to state the objectives sought by the project. Section 15124(b) provides in part:

A clearly written statement of objectives will help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits.

The underlying purpose of the project is to provide seasonal tent camping with added amenities, including tents with beds, bathroom facilities, and a dining facility. The project objectives are:

- 1) Help meet the demand for lodging facilities near Yosemite National Park and surrounding outdoor recreational resources.
- 2) Provide a camping experience with full-service amenities for visitors to Yosemite National Park and the surrounding area in an outdoor setting.
- 3) Assist the County in meeting its General Plan goals and policies, particularly those related to natural resources, public safety, natural hazards, and economic development.
- 4) Plan for land use compatibility with adjacent landowners and land use activities through effective placement, orientation, and screening of project facilities.

- 5) Reduce hazardous wildfire fuel and timber conditions on the project site.
- 6) Provide on-site infrastructure improvements relating to potable water delivery, wastewater management, and drainage.
- 7) Develop a financially sustainable project that can fund the construction and operation of the facilities and services that are needed to serve the project.

2.3 Project Location and Surrounding Uses

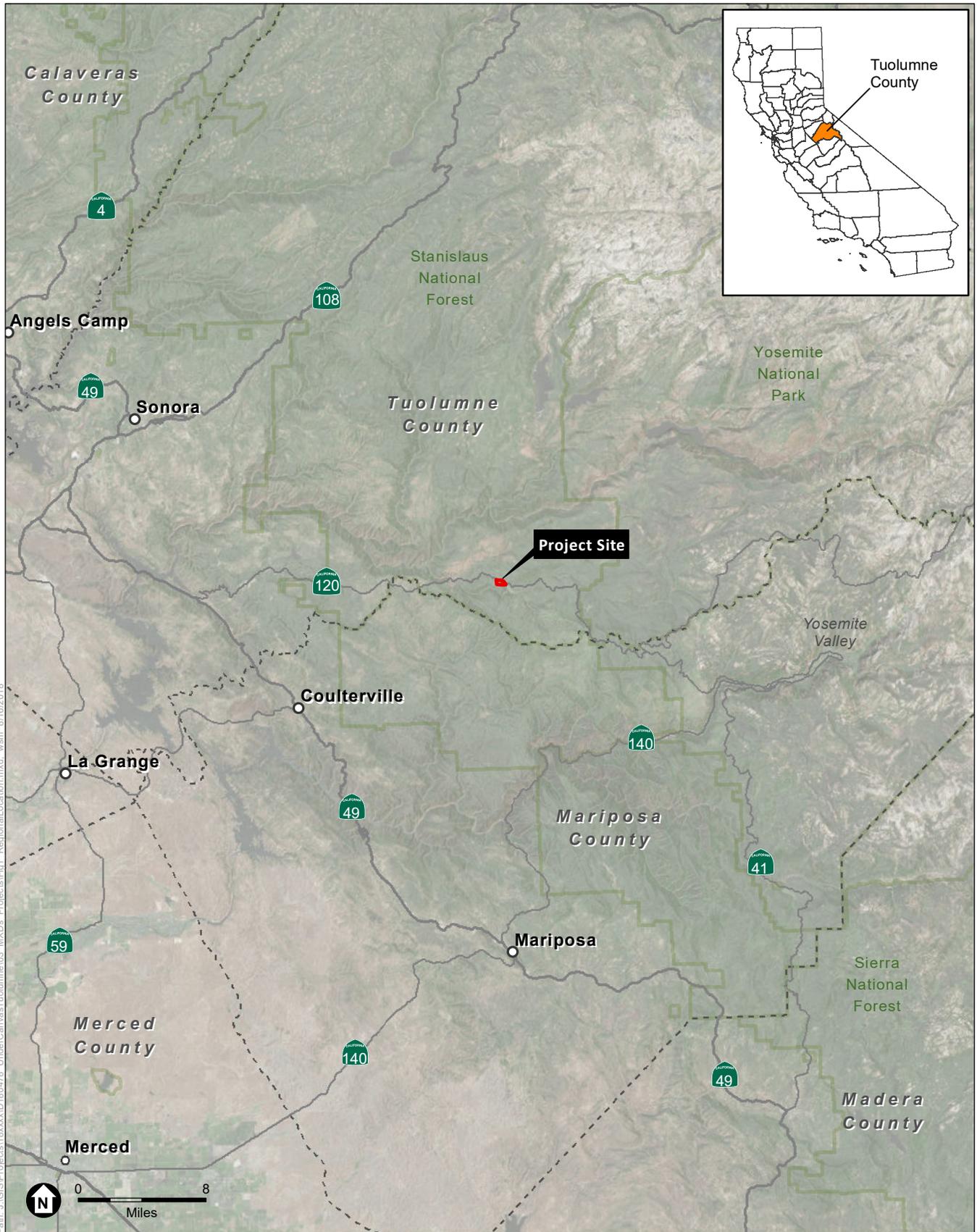
The project site is east of the town of Groveland and west of Yosemite National Park in southern Tuolumne County and is located on the Ascension Mountain, CA 7.5' U.S. Geological Survey (USGS) Quadrangle (**Figures 2-1 and 2-2**), on a private inholding within the Stanislaus National Forest. It falls within the southeastern portion of Section 26, Township 1 South, Range 18 East, Mount Diablo Baseline and Meridian. The project site is located within unincorporated Tuolumne County, and is comprised of two parcels (APNs 68-120-62 and -63), totaling approximately 80.1 acres. Figure 2-2 shows the zoning for the site. The western parcel is zoned Commercial Recreation (C-K), and the eastern parcel is zoned Commercial Recreation (C-K) and Open Space-1 (O-1).

Access to the site is provided by Hardin Flat Road via SR-120. The site consists of undeveloped land and was previously used for forestry and logging. Adjacent land uses include scattered private residences, recreation facilities, and open space. The nearest building is a Caltrans snow plow garage approximately 1,250 feet north across SR-120 from the nearest proposed project facilities. The nearest residence is approximately 1,300 feet southeast of the nearest proposed project facilities. Elevation in the project site ranges from 3,740 feet above mean sea level in the east to 4,050 feet above mean sea level in the west.

2.4 Project Description

Figure 2-3 shows the proposed project site plan. Per the requirements of Tuolumne County Code Section 17.68.100, approval of the conceptual plans for the project would require issuance of a site development permit. As shown in Figures 2-2 and 2-3, the bulk of the project's development would occur on the C-K portion of the site, though some development would also occur on the C-K/O-1 portion of the site. Development within the C-K/O-1 portion of the site would require issuance of a use permit, as provided for in the County's Zoning Code (County Code Chapter 17.15.030). Of the 80.1 acres on the overall project site, less than half of that amount would be developed for the proposed use, and the remaining portions would remain undeveloped.

Traditional buildings with concrete foundations are not proposed for the project. However, there would be communal bathrooms, a commercial kitchen, laundry and housekeeping, and a lobby tent with a dining area. These facilities would not be permanent fixtures on the land. Utility improvements to support the camp would include water supply wells, wastewater treatment, and commercial power supplied to the kitchen, laundry, and communal bathrooms. Details on guest amenities and supporting infrastructure are provided below.



SOURCE: Esri, 2015; ESA, 2018

Yosemite Under Canvas Project

Figure 2-1
Regional Location

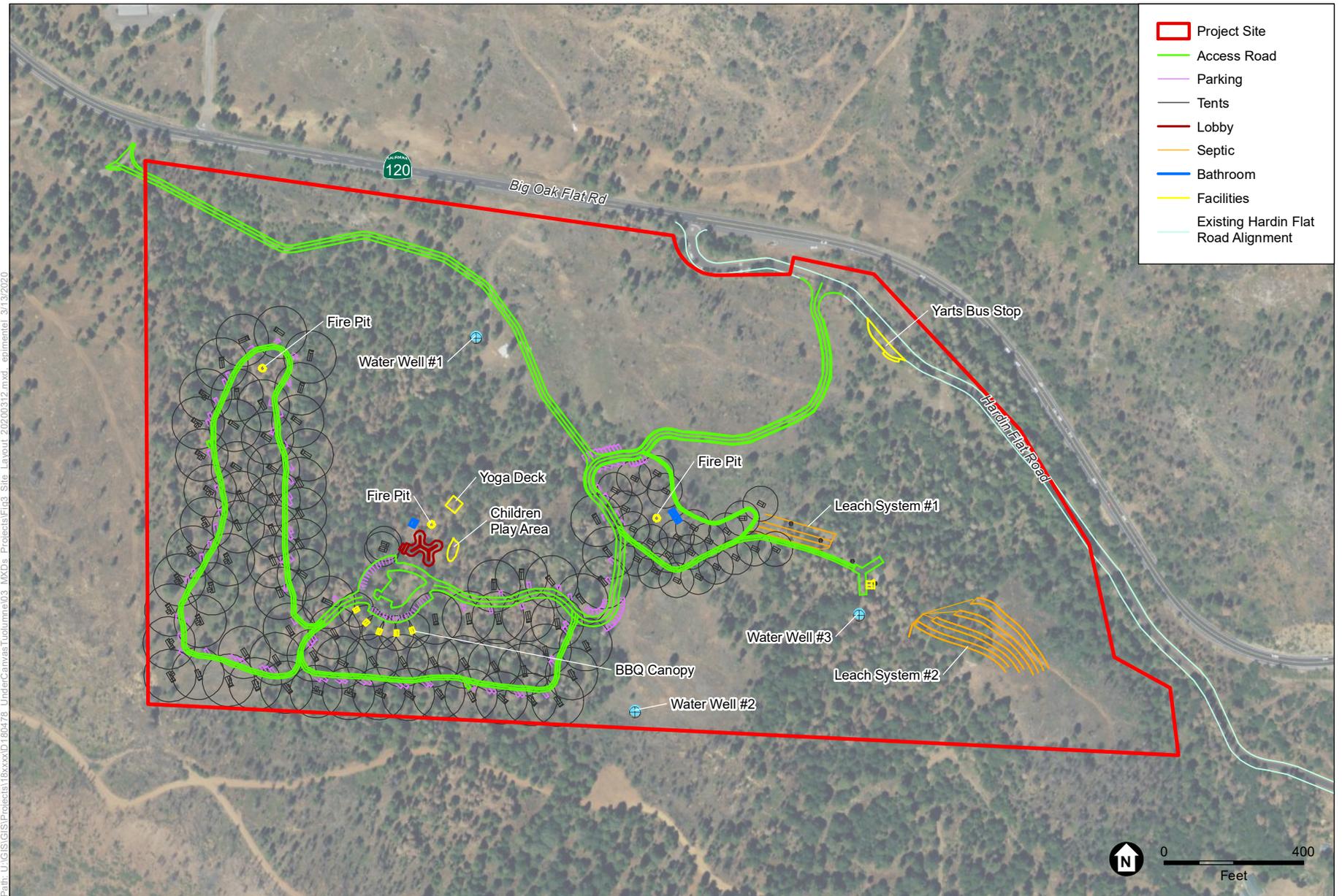




SOURCE: USDA, 2016; ESA, 2020

Yosemite Under Canvas Project

Figure 2-2
Project Site and Zoning Designations



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SOURCE: USDA, 2016; ESA, 2020

Yosemite Under Canvas Project

Figure 3
Project Site Plan



2.4.1 Guest Amenities and Supporting Facilities

Guest Tents

Figure 2-3 shows the overall site plan. The tent sites shown are approximate locations; exact tent locations would be determined with completion of final engineering design. The project proposes a total of 99 guest tents with 77 suite tents with an in-suite washbasin, shower, and toilet, and twenty-two safari tents with access to a communal bathroom. Four of the suite tents would be Americans with Disabilities Act (ADA) compliant. The approximate tent footprints would range from 200 to 400 square feet. Tents would be made from fire-retardant-treated canvas mounted on non-permanent wooden decks. Decks would typically be mounted on moveable above-ground concrete footings. The tents would be removed at the end of each season in October, with the decks remaining in place. The tents would be stored on-site in shipping containers, though some could be transported off-site for use at other Under Canvas facilities. **Figure 2-4** shows photographs of typical tents found at existing Under Canvas facilities.

Bathroom Facilities

To serve the safari tents without in-suite bathroom facilities, two communal bathroom facilities would be provided, which would be manufactured off-site and contain six stalls, with each stall consisting of a toilet, sink, and shower. The units would be prefabricated and mounted on wheels, and would be non-permanent in nature, but would likely remain on-site during the off season, though they could be transported off-site for use at other Under Canvas facilities. **Figure 2-5** shows a typical communal bathroom facility.

Reception, Dining, and Support Facilities

One reception/dining tent would be provided, as well as an adjacent commercial kitchen trailer and a number of support (housekeeping and maintenance) portable storage containers. The project's commercial kitchen trailer would prepare and serve single-service meals to guests staying at the camp. Figure 2-5 shows a typical reception/dining tent at an existing Under Canvas facility.

As with the guest tents described previously, the reception/dining tent would be disassembled at the end of each season and stored in an on-site shipping container. The commercial kitchen trailer would be prefabricated and mounted on wheels, and would be non-permanent in nature, but would likely remain on-site during the off season, though it could be transported off-site for use at other Under Canvas facilities. The remaining housekeeping and maintenance support containers would also likely remain on-site during the off-season.

Outdoor Campfires and Heating Stoves

The project would provide up to three traditional, communal campfire pits interspersed around the project site. **Figure 2-6** shows a typical communal campfire pit. The lighting, maintenance, and extinguishing of these campfires would be managed by camp staff. See below in Section 2.4.7, *Timber Management and Wildfire Prevention*, for a detailed description of wildfire prevention practices to be employed by the project.



Typical “Deluxe” guest tent, with in-suite bath. This example is from the Under Canvas Mount Rushmore campground.



Typical “Safari” guest tent. This example is from the Under Canvas Mount Rushmore campground.

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SOURCE: ESA, 2020

Yosemite Under Canvas Project

Figure 2-4
Typical Guest Tents





Typical mobile bathroom facility. This example is from the Under Canvas Mount Rushmore campground.



Typical reception/dining tent. This example is from the Under Canvas Zion campground.

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SOURCE: ESA, 2020

Yosemite Under Canvas Project

Figure 2-5
Typical Bathroom Facilities and Reception/Dining Tent





This example is from the Under Canvas Moab campground.

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SOURCE: ESA, 2020

Yosemite Under Canvas Project

Figure 2-6
Typical Community Fire Pit

The project would provide heating within the guest tents on an as-needed basis through the use of wood heating stoves. The current-specification wood stove used at most of the existing Under Canvas facilities is the “Hunter” stove, manufactured by Cylinder Stoves.¹

2.4.2 Access and Internal Circulation

Internal circulation would be provided by a main internal access road (Under Canvas Way) and internal cart paths and footpaths. There is existing access to the property by way of Hardin Flat Road via SR-120. The proposed Under Canvas Way would begin from Hardin Flat Road at a point approximately 500 feet south from the intersection of SR-120 and Hardin Flat Road. A secondary point of access would be provided for emergency purposes on the northwest side of the site via an existing unimproved roadway that connects to Forest Service Road 1S09. This road would be maintained for emergency use through an agreement with the Stanislaus National Forest, and obtaining this permit would be a condition of project approval. Onsite roadways would not be paved, but would be topped with gravel where needed. Portions of the existing emergency access road may require grading and the addition of gravel, and rolling dips are proposed to improve drainage conditions.

The construction of Under Canvas Way within the project site would require two primary crossings over ephemeral drainages and minor crossings over smaller features as described below:

- A culvert crossing is proposed near the project access to Hardin Flat Road in the northeastern portion of the project site. This crossing would utilize a 36-inch diameter corrugated metal pipe covered with a minimum cover of two feet, including at least 10-inch thick compacted aggregate base. Both ends would be fitted with a concrete headwall and to prevent erosion. The outlet would include riprap for energy dissipation.
- A steel bridge with concrete deck is proposed just northeast of the common parking area to cross another drainage. Rock head walls would utilize 4-foot minus rock and extend 25 to 35 feet in each direction of flow. Bridge design would be based on American Association of Highway and Transportation Officials bridge standards for low-volume traffic, and would be designed and maintained to support the imposed loads of fire apparatus, up to a 4,000-gallon water tender, a semi transport with dozer, or a large semi with 48-foot trailer. Radii for approach and departure would support these large vehicles. The two-lane bridge width would be 24 feet wide and designed for HS-20 loading. All bridge components and associated construction activities would be located outside of the defined bed and bank of the channel.
- Under Canvas Way crosses a small drainage feature in the southwest portion of the project site in two locations. These locations would utilize 18-inch diameter corrugated metal pipes covered with one foot of minimum compacted base. Multiple check dams would be located upstream and downstream of these crossings to reduce flow velocity.

Internal roads and pathways would be gravel-covered, as needed, and not paved, though several ADA-designated parking spaces would be paved to comply with applicable regulations. All roads would be constructed to have an unobstructed width of not less than 20 feet and an unobstructed

¹ Cylinder Stoves, Inc. Hunter Stove <https://www.cylinderstoves.com/hunter-stove.html>.

vertical clearance of not less than 13.5 feet. For dead-end roadways in excess of 150 feet in length, the project would provide a turnaround for fire apparatus.

Parking would be provided along proposed camp roads and would be located near the deluxe/suite tents. The safari tents would have a common parking area. Approximately 130 total parking spaces would be provided for guests and employees. All of the tents would be accessed via gravel paths and trails.

Transit Accessibility

A bus stop for the Yosemite Area Regional Transportation System (YARTS) is proposed on the west side of Hardin Flat Road at the entrance to the Yosemite Under Canvas facility, approximately 800 feet south of the Hardin Flat Road/SR-120 intersection. The bus stop would be designed to accommodate a typical 45-foot YARTS coach. The stop would be designed in consultation with YARTS with respect to design and safety criteria. The stop would provide Yosemite Under Canvas guests with the option to use the regional public transit system to access Yosemite National Park and other regional destinations. YARTS currently operates between May and September and offers three round trips per day into Yosemite National Park.

2.4.3 Potable Water Supply and Use

Drinking and potable water at the camp would be provided by groundwater source wells. The source would be developed as a Public Water System, and classified as a Transient Non-Community water system, as defined in California Health and Safety Code Section 116275. Water distribution would include storage cisterns, small diameter distribution lines, re-pressure pumps, source development, and services to the laundry, lobby tent, bath units, and deluxe/suite tents.

Estimated instantaneous flows for the distribution system are 80 gallons per minute (gpm). General system layout would be finalized pending development of a groundwater source, and design documents for the proposed system would be submitted for agency approval. Water use at existing Under Canvas camps in other parts of the U.S. is typically under 12 gallons per day (gpd)/person. As with all Under Canvas facilities, water usage monitoring would be implemented to verify daily water use of 20 gpd per person or less. To meet this goal, the project would incorporate a number of water efficiency features that have been implemented at other operational Under Canvas facilities, including the use of water fixtures that use minimal water, shower facilities with shower heads and faucets that turn on by pulling a handle or pushing a knob and turn off as soon as the handle or knob is released, and toilets that would use 0.8 to 1.2 gallons of water per flush. Preliminary water supply requirements for the site at full occupancy are listed in **Table 2-1**.

Based on this analysis, the water source(s) would need to be developed to supply an average demand of 7,755 gpd. Accordingly, the proposed groundwater source wells would be developed to supply 20 to 30 gpm. Wells 1 and/or 2 would be used to supply water for the project, with Well 3 retained as a backup. The locations of the wells are shown in Figure 2-3. The wastewater and water use quantities would be monitored and submitted to the Tuolumne County Community Development Department, Environmental Health Division.

**TABLE 2-1
EXPECTED TOTAL DAILY WATER USE**

Proposed Use	Design GPD	Unit Per	Number of Units	GPD	Notes
Expected Guest Demand (99 tents, 2.5 guests/tent)	20	Person	247.5	4,950	20 gpd/guest x 247.5 guests
Employees	10	Person	20	200	10 gpd/employee x 20 employees
Laundry Facility	42.5	Machine	26	1,105	42.5 gallons per wash x 26 washes
Food Preparation	4	Service	375	1,500	4.0 gpd x 375 meals
Total Expected Daily Water Use (full occupancy)				7,755	

NOTE: The expected water use values presented here are representative of expected potable water use at the site, as based on recorded observations at other Under Canvas facilities. However, the impact analysis for the project, as presented in Section 3.5, *Hydrology and Water Quality/Utilities and Service Systems*, assumes a greater quantity of water use to provide for a worst-case scenario analysis.

The site's water and wastewater systems would be winterized after closing for the season. The systems would be tested by a State Water Board Division of Drinking Water certified laboratory prior to being placed in use each season. Once in use, potable water samples would be tested the first Tuesday of each month for bacteria.

2.4.4 Wastewater Management

Wastewater treatment would be designed to meet the County's guidelines for design and evaluation of special design on-site sewage treatment and disposal systems, and would comply with Tuolumne County Ordinance Code Section 13.08.270A, as overseen by the County's Environmental Health Division. Wastewater would be treated on-site through the use of two separated systems. Sewer mains would be constructed to convey the wastewater to the two systems, which would be located near the southeastern area of the site, as shown in Figure 2-3. Wastewater System #1 would be a domestic strength wastewater system which would receive primary treatment from code compliant septic tanks, and would be delivered to gravel filled leach trenches via pressure dosing. Wastewater System #2 would be a hybrid system to manage the high strength food facility wastewater, and the domestic strength wastewater from the laundry facilities. The high strength food facility waste would have primary treatment via a code compliant grease interceptor and septic tank. High strength food facility wastewater would then receive secondary treatment from a properly sized moving bed bio-film reactor (MBBR) to reduce the high strength wastewater to domestic strength wastewater. Both employee generated wastewater and laundry service wastewater would be treated as domestic strength wastewater, and would receive primary treatment from code compliant sized septic tanks. The treated food facility wastewater, employee generated wastewater, and the laundry service wastewater would be combined and delivered to a gravel filled leach system via pressure dosing. **Table 2-2** shows the designed capacity of the wastewater system, at full occupancy.

The daily wastewater calculations presented above represent maximum daily volumes at maximum occupancy. Maximum occupancy is likely to be achieved only occasionally, so actual wastewater volumes are likely to be much less. Accordingly, the values shown represent a maximum or worst-case scenario.

**TABLE 2-2
PEAK DAILY WASTEWATER DISPOSAL**

Proposed Use	Design GPD	Unit Per	Number of Units	GPD
Wastewater System 1				
Tents (99) at maximum occupancy	30	Person	276	8,280
Total Wastewater System 1				8,280
Wastewater System 2				
Food Service Wastewater (276 guests x 3 meals/day)	2	Meal	828	1,656
Employee Generated Wastewater	20	Employee	40	800
Laundry Service	42.5	Laundry Load	26	1,105
Total Wastewater System 2				3,561
TOTAL				10,841

NOTE: All wastewater flow rate calculations and tank sizing specifications were derived from Appendix H of the 2016 California Plumbing Code. Specifically, 2016 California Plumbing Code, Estimated Waste/Sewage Flow Rates, Table H 201.1 (2), 9. Hotels (No kitchen); 30 gpd/person. Also Chart H 901.7 Design Criteria for commercial kitchen/food preparation wastewater treatment and dispersal using disposable utensils. Per Tuolumne County Environmental Health policy, the maximum daily volumes used for wastewater system design must represent maximum daily volumes at maximum occupancy. The maximum occupancy and employee/staff information was supplied by Under Canvas.

2.4.5 Electricity and Lighting

Electric power for the camp would be provided by a local utility company, but most electricity demand would be met using low voltage solar systems. Lighting for the lobby tent, common areas, and guest tents would be low voltage solar lighting. All light fixtures and the use thereof would be International Dark Sky Association (IDA) compliant, while still providing safety and guidance for guests. Incorporated lighting standards would include:

1. Lights would be on only when needed, and would only light those areas that require it.
2. Lighting would be no brighter than necessary.
3. Blue light emissions would be minimized, with LED fixtures utilizing color temperatures no greater than 3000 Kelvins.
4. All light fixtures would be down-shielded and would be pointed downwards.

To provide electric power to the site during power outages, a 70 kW propane-powered standby generator would be placed adjacent to Well #1 (see Figure 2-3). The generator would be placed inside its own enclosure for protection against the elements and for noise abatement purposes.

2.4.6 Solid Waste Management

Trash from the guest tents would be collected daily as part of normal housekeeping activities. All solid waste produced at the site, particularly food waste, would be stored in locking wildlife-resistant containers and then removed from the site by a commercial hauler for disposal at a permitted landfill.

2.4.7 Timber Management and Wildfire Prevention

Fuel Reduction

Most of the site was severely burned during the 2013 Rim Fire. Much of the Stanislaus National Forest lands adjacent to the site have undergone extensive timber salvage and fuels management activities since that time to remove excess dead and downed wood that resulted from the fire. These types of activities have not yet occurred on the project site, and significant quantities of downed wood and standing snags remain on the site. These conditions present a substantial hazard, both from a fuels management perspective and a hazardous tree perspective. Consequently, any development on the site would need to be preceded by fuel reduction operation to remove standing and dead trees that pose a threat to users. Fuel treatment would involve mastication of standing dead snags and surface fuels. It is possible that some of the material would be hauled offsite if economically feasible.

The project development plan would involve conversion of greater than three acres of timberland. Both the fuel reduction efforts and conversion activities would meet the definition of timber operations as defined in the Forest Practice Act and will require development of a Timber Harvest Plan (THP), described below in Section 2.4.8. A THP is the environmental review document submitted by landowners to the California Department of Forestry and Fire Protection (CAL FIRE) that outlines what timber the landowner wants to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment. The THP would use the environmental documentation contained in this EIR to make its own determination concerning the environmental effects of implementing the plan, and the THP would be subject to approval by CAL FIRE.

Wildfire Prevention

In addition to the fuels reduction and road construction that would be undertaken as part of the THP, the site would be subject to ongoing fuel and vegetation management treatments as prescribed in the project's Wildfire Mitigation Plan. The plan would be subject to review and approval by the Tuolumne County Fire Department (TCFD) in cooperation with CAL FIRE. The plan would include a number of standard prescriptions to be utilized in the future, including, but not limited to:

- Removal of necessary dead, down, dying, diseased, and hazardous trees.
- Removal of ladder fuel and dead limbs in trees to a minimum of 20 feet above ground level.
- Implementation of a ground litter reduction and removal program.
- Potential thinning of the trees and other vegetation that have grown since the 2013 Rim fire.
- Provision of defensible space around all areas of proposed development.
- Provision of defensible space on each side of project roadways.
- Where and necessary, establishment of defensible space, to include vegetation removal, thinning and eliminating ladder fuels within the site perimeter to a distance of 100 to 200 feet, depending on the slope.

- Fuel reduction and mitigation on and around an area recommended for designation as a temporary Refuge Zone Area for project guests and staff.

To prevent the ignition of wildfires from the project site, a number of measures would be implemented, including:

- All tent fabrics would be California State Fire Marshall approved.
- All heating stoves on the site would be equipped with spark arrestors, which would be constructed of woven or welded wire screening of 12 USA standard gage wire (0.1046 inch) having openings not exceeding 1/2-inch. The net free area of the spark arrestor would not be less than four times the net free area of the outside of the chimney outlet.
- The ashes from the stoves would be removed by camp staff in metal containers and disposed of in a steel container. Firewood and combustible materials would not be stored in unenclosed spaces, beneath tents, or on decks under eaves, canopies or other projections or overhangs. Fire wood and combustible material would be stored in defensible space, and separated from the crown of trees by a minimum horizontal distance of 15 feet.
- Smoking would be restricted to designated areas with receptacles for cigarette waste. The area and a minimum 50-foot buffer would have vegetative material cleared to bare mineral soil.
- Community campfire rings would be enclosed within a large metal ring to contain burning material, and would be installed 12 inches into the ground, with a minimum of 12 inches extending above the ground. A mesh screen would be installed to encompass and cover the fire as a spark arrestor. Branches and other vegetation above each fire area would be removed, and a cone of clearance to the sky would be established. A large metal cover would be provided to cover the fire ring when not in use and nightly after the fire is extinguished by camp staff. A hose bib would be provided in proximity to each fire ring to extinguish fires prior to covering. Remote web cameras of fire pit areas would be installed to monitor each fire pit, and would be monitored from the campground office and mobile devices. Fires would not be allowed whenever the U.S. Forest Service imposes restrictions on campfires due to the proximity of the Forest boundary.
- The mobile kitchen facility would be equipped with a hood and range dry chemical extinguishing system.
- Fire tool lockers and fire extinguishers would be provided throughout the site, meeting the requirements of Public Resources Code (PRC) 4428 and 4429. Fire extinguishers would be located in each guest tent structure, as well as in all other facilities.
- Fire hose stations with fire hoses and nozzles would be provided within the site, with 200 feet of fire hose provided at each station. These stations would be located in such a manner that no tent structure would be greater than 150 feet from a fire hose station.

Prior to operation, an Emergency Operations Plan would be developed to address wildfire and other emergency incidents at the site. This plan would be subject to review and approval by applicable emergency services providers. The plan would include, at a minimum:

- A Training and Exercise Plan, to be implemented annually with all employees, covering the Emergency Operation Plan and issues such as response to fire, fire extinguisher and firehose use, first aid and emergency medical response, and dealing with problem guests.

- An orientation briefing for guests concerning potential hazards and what to do in the event of an emergency incident.
- Provision of a site fire and emergency alert system to notify site occupants in the event of an emergency.
- A site evacuation plan, defining routes of ingress and egress, rally points, and protocols for disabled guests and/or guests without their own transport.
- Establishment and maintenance of temporary refuge areas if evacuation is not possible.
- Establishment of an emergency helicopter landing site. The site would not be a permitted heliport as described in California Code of Regulation 3554, and would be maintained for use in emergencies only.
- Basic fire and first aid training would be provided to all employees, with at least one employee onsite at any given time with advanced first aid training (Emergency Medical Technician or similar).

2.4.8 Timber Harvest Plan

The timber harvest plan (THP) would involve removal of dead and dying trees and treatment of live surface and ladder fuels along with down woody material utilizing mastication machinery. Davey Tree Service conducted an arborist inspection of the project area between March 9, 2019 and April 30, 2019. A total of 511 dead standing trees were assessed and determined to pose a safety threat. These trees would be removed as part of the project.

Outside of the timber conversion area, a defensible space silvicultural prescription would be utilized. The intent of this prescription would be to retain all live green trees and to remove dead standing trees and down logs less than 20 inches in diameter on the larger end and greater than 20 feet in length. Trees to be saved in this area would be tagged by an arborist with numbered aluminum tags. Standing dead and dying trees to be removed would be marked. Surface and ladder fuels would be treated to reduce total 1,000-hour fuel loads to a residual level of less than 5 tons per acre. Down logs greater than 3 inches in diameter and less than 20 inches in diameter would be chipped on site as part of the mastication process or removed to disposal areas and chipped on site or chipped and/or hauled to a biomass facility. Down material less than 3 inches in diameter and less than 18 inches in length would be masticated to achieve a minimum standard that results in 80 percent of the post treatment material being less than 18 inches in length and at least 60 percent being less than 12 inches in length. In addition, mastication would remove dead brush throughout 85 percent of the treatment area and would also remove live ladder fuels from within the dripline of residual trees. Areas where live brush would be retained would be marked prior to the start of operations. Post treatment depth of surface fuels would be less than 3 inches over 80 percent of the treatment area. Logs greater than 20 inches in diameter and greater than 20 feet in length would be retained on site.

Large snags and decadent black oaks are valuable wildlife habitat resources, which develop slowly and are hard to replace on the landscape. Given the habitat value of larger snags and black oak, the following measures would be applicable to tree removal operations conducted under the THP.

- Snags larger than 26 inches in diameter and all living black oak trees greater 8 inches in diameter and 20 feet in height would be retained unless a determination is made by a certified arborist in consultation with the project biologist that removal is absolutely necessary to protect life and property.
- Removal of black oaks greater than 15 inches in diameter within the fuel treatment areas or those black oaks marked for retention within the road right of way would be avoided and the road alignment adjusted to avoid individual black oak trees which meet the diameter retention threshold.
- Fuel treatment and mastication would avoid black oak sprout clumps. Dead standing black oak boles greater than 3 feet in height and less than 15 inches in diameter would be masticated while avoiding black oak sprouts, if present.

It is also recognized that understory vegetation is important to a number of wildlife species for cover, perching, nesting, and foraging habitat. To ensure retention of areas of developing understory, the following measures would be applicable to mastication operations conducted under the THP.

- To encourage more rapid development of understory brush, seedlings, and saplings to benefit wildlife generally and nesting birds specifically, the mastication treatment would retain designated understory retention areas as flagged on the ground by the project wildlife biologist or registered professional forester. Retention areas would be focused on creating minimum patch sizes of 15 feet in diameter and where available would be placed in areas with a mix of brush species, grasses and conifer seedlings.

To provide for wildlife habitat needs, all dead stem material greater than 16 inches in small end diameter outside bark and greater than 20 feet in length on site up to a maximum of three pieces per acre would be retained. Down logs which meet this description would be moved to other areas within the project area as necessary to achieve fire reduction and guest safety objectives.

2.5 Operational Characteristics

The operational season for the site would generally be from mid-March to mid-October, depending on weather conditions. The average occupancy at existing Under Canvas facilities is approximately 2.5 guests per tent. Most guests arrive for the night and then leave the site in the morning to pursue recreational and sightseeing opportunities in the area, and then return later in the day following the day's activities. Quiet hours are enforced from 10:00 p.m. to 7:00 a.m. Operation of the facility would not employ any regular sources of amplified noise. Occasional special events (weddings, etc.) could occur on the site that could include temporary sources of amplified noise, and these events would be conducted in accordance with General Plan requirements for stationary noise sources. An emergency notification public address system

would also be included as part of the project, but would only be used in the event of an emergency and for occasional testing.

Between 20 and 30 staff members would be employed by the project during the operational season, with 10 to 15 personnel working on the site at any given time. Employees would largely be drawn from the local community, though some could be recruited from elsewhere. If they desire, seasonal employees from elsewhere without housing in the local community would be housed in rental units facilitated and paid for by the project proponent.

2.6 Construction

Methods and Design

Site development activities would be preceded by an extensive timber salvage program, concurrent with implementation of a hazardous fuel reduction effort to make the site accessible and safe for use. These efforts have been discussed previously in Sections 2.4.7 and 2.4.8. Following this preliminary site preparation, construction of the campground facility itself would employ currently accepted and typical construction methods. The contractor would establish access routes and staging areas, within the proposed development area, for travel within the site and storage of materials and equipment. If needed, dust control would employ a standard water truck equipped with spray nozzles. The site plans are based on minimal site disturbance based on seasonal occupancy. Few permanent or “hard” facilities would be present. Wooden tent decks would require minimal excavation for moveable concrete footers. Access roads and paths would be designed and constructed to minimize cut and fill requirements. The project would follow Low Impact to Hydrology (LITH) Design Guidelines for the design of roads and paths. Infrastructure for wastewater collection and water distribution would be designed and constructed to minimize trenching depths and disturbance. Wherever possible, water lines and other utility infrastructure would be placed underground beneath roadways, paths, or disturbed areas.

Schedule and Work Hours

Construction of the project is expected to take one construction season, starting in Summer 2020 and extending to October 2020, for about five months of construction activity. Though the County does not have a specific noise ordinance that defines acceptable working hours, construction activity would comply with standards that are typical for other jurisdictions in California, which relegate noise-producing construction activities in non-residential areas to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday.

Equipment

Anticipated construction equipment is shown in **Table 2-3**. The actual equipment used during construction would be determined by the contractor and the construction schedule.

**TABLE 2-3
CONSTRUCTION EQUIPMENT**

Equipment	Construction Purpose
Bulldozer	Earthwork construction and clearing and grubbing
Grader	Ground leveling
Mini Excavator	Soil manipulation
Skid Steer Loader	Soil or gravel manipulation
Trencher	Trench digging

2.7 Project Entitlements and Approvals

The Tuolumne County Community Development Department would review the EIR and Mitigation Monitoring and Reporting Plan (MMRP), and the Planning Commission would certify the EIR as the lead agency. Additionally, the following permits, reviews, consultations, and approvals (see **Table 2-4**, below) would be required to be completed or approved prior to the commencement of project construction.

**TABLE 2-4
PERMITS AND APPROVALS NEEDED**

Agency	Permit/Approval
Federal	
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit
U.S. Forest Service (USFS)	Temporary Road Use Permit for construction access across USFS lands
U.S. Forest Service	Special Use Permit for seasonal access across USFS lands
State	
California Department of Fish and Wildlife (CDFW)	California Fish and Game Code Section 1600-1602 Streambed Alteration Agreement
California State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit
California Department of Forestry and Fire Protection	Timber Harvest Plan
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification
Local	
Tuolumne County	Site Development Permit
Tuolumne County	Use Permit for development of campground uses in the Commercial Recreation/Open Space (C-K/O-1) portion of the site
Tuolumne County	Tuolumne County Grading Permit
Tuolumne County Fire Department	Wildfire Mitigation Plan, Emergency Operations Plan

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CHAPTER 3

Environmental Setting, Impacts, and Mitigation Measures

3.0 Introduction to the Analysis

This draft environmental impact report (EIR) evaluates and documents the physical environmental effects that would potentially occur with the implementation of the proposed Yosemite Under Canvas Project (project) in accordance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Sections 21000, et seq., and the Guidelines for the California Environmental Quality Act (CEQA Guidelines), California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq.). Sections 3.1 through 3.9 consider the regulatory background, existing conditions, and environmental impacts associated with implementation of the project, as well as mitigation measures to reduce the impact of project-specific and cumulative environmental impacts, and the level of significance of impacts following mitigation.

This EIR discusses the physical environmental effects which would potentially be affected by implementation of the project. As certain environmental resource topics typically analyzed under CEQA would not be affected by the project, these topics are not further analyzed in Sections 3.1 through 3.9 of this EIR, and are instead considered in Section 3.0.3, below.

3.0.1 Definitions of Terms Used in the EIR

This EIR uses a number of terms that have specific meaning under CEQA. Among the most important of the terms used in the EIR are those that refer to the significance of environmental impacts. The following terms are used to describe environmental effects of the project:

- **Significance Criteria:** A set of criteria used by the lead agency to determine at what level or threshold an impact would be considered significant. Standards of significance used in this EIR were derived from Tuolumne County’s established significance standards, when applicable, those of relevant agencies, or the checklist criteria contained in Appendix G of the CEQA Guidelines. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, State, and local regulations and ordinances.
- **Significant Impact:** A project impact is considered significant if the project would result in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project-related physical change compared to specified significance criteria. A significant impact is defined as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the

project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”¹

- **Potentially Significant Impact:** A potentially significant impact is identified where the project may cause a substantial adverse change in the environment, depending on certain unknown conditions related to the project or the affected environment. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.
- **Less-than-Significant Impact:** A project impact is considered less than significant when the physical change caused by the project would not exceed the applicable significance criterion.
- **Significant and Unavoidable Impact:** A project impact is considered significant and unavoidable if it would result in a substantial adverse physical change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level.
- **Cumulative Impact:** Under CEQA, a cumulative impact refers to “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”² Like any other significant impact, a significant cumulative impact is one in which the cumulative adverse physical change would exceed the applicable significance criterion and the project’s contribution is “cumulatively considerable.”³
- **Mitigation Measure:** A mitigation measure is an action that could be taken that would avoid or reduce the magnitude of a significant impact. Section 15370 of the CEQA Guidelines defines mitigation as:
 - a. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
 - e. Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.

3.0.2 Section Format

Chapter 3 is divided into technical sections (e.g., Section 3.1, *Aesthetics*) that present for each environmental resource issue area the physical environmental setting, regulatory setting, significance criteria, methodology and assumptions, and impacts on the environment. Where required, potentially feasible mitigation measures are identified to lessen or avoid potentially significant impacts. Each section includes an analysis of project-specific and cumulative impacts for each issue area.

¹ CEQA Guidelines, Section 15382.

² CEQA Guidelines, Section 15355.

³ CEQA Guidelines, Section 15130(a).

The technical environmental sections each begin with a description of the project's **environmental setting** and the **regulatory setting** as it pertains to a particular issue. The environmental setting provides a point of reference for assessing the environmental impacts of the project and project alternatives. The environmental setting discussion addresses the conditions that exist prior to implementation of the project. This setting establishes the baseline by which the project and project alternatives are measured for environmental impacts. The regulatory setting presents relevant information about federal, state, regional, and/or local laws, regulations, plans or policies that pertain to the environmental resources addressed in each section.

Next, each section presents **significance criteria**, which identify the standards used by Tuolumne County to determine the significance of the environmental effects of the project. The significance criteria used for this analysis were derived from the County's established significance standards, as well as other criteria applicable under CEQA, including thresholds established by trustee and responsible agencies.

A **methods and assumptions** description in each section presents the analytical methods and key assumptions used in the evaluation of effects of the project, and is followed by an **impacts and mitigation** discussion. The impact and mitigation portion of each section includes impact statements, prefaced by a number in bold-faced type. An explanation of each impact is followed by an analysis of its significance. The subsection concludes with a statement that the impact, following implementation of the mitigation measure(s) and/or the continuation of existing policies and regulations, would be reduced to a less-than-significant level or would remain significant and unavoidable.

The analysis of environmental impacts considers both the construction and operational phases associated with implementation of the project. As required by section 15126.2(a) of the CEQA Guidelines, direct, indirect, short-term, long-term, onsite, and/or off-site impacts are addressed, as appropriate, for the environmental issue area being analyzed. Under CEQA, economic or social changes by themselves are not considered to be significant impacts, but may be considered in linking the implementation of a project to a physical environmental change, or in determining whether the physical change is significant.⁴

Where enforcement exists and compliance can be reasonably anticipated, this EIR assumes that the project would meet the requirements of applicable laws and other regulations.

Mitigation measures pertinent to each individual impact, if available, appear after the impact discussion section. The magnitude of reduction of an impact and the potential effect of that reduction in magnitude on the significance of the impact is also disclosed. An example of the format is shown below.

⁴ A "significant effect on the environment" is defined in CEQA Guidelines Section 15382.

Impacts and Mitigation Measures

Impact 3.X-1: Impact statement.

A discussion of the potential impact of the project on the resource is introduced in paragraph form. To identify impacts that may be site- or project element-specific, where appropriate, the discussion differentiates between construction effects and operational effects. A statement of the level of significance before application of any mitigation measures is provided in **bold**.

Mitigation Measure

If the impact is determined to be less than significant, the text will say, “None required.” If the impact is determined to be significant or potentially significant, mitigation will be included in the following format:

Mitigation Measure 3.X-1:

Recommended mitigation measure provided in italics and numbered in consecutive order.

Where appropriate, one or more potentially feasible mitigation measures are described. If necessary, a statement of the degree to which the available mitigation measure(s) would reduce the significance of the impact is included in **bold**.

Cumulative Impacts

An analysis of cumulative impacts follows the project-specific impacts and mitigation measures evaluation in each section. A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other past, present and reasonably foreseeable projects causing related impacts.⁵

The beginning of the cumulative impact analysis in each technical section includes a description of the cumulative analysis methodology and the geographic or temporal context in which the cumulative impact is analyzed (e.g., Tuolumne County, the Mountain Counties Air Basin, other activity concurrent with project construction). In some instances, a project-specific impact may be considered less than significant, but when considered in conjunction with other cumulative projects or activities may be considered significant or potentially significant.

Projects considered in the cumulative analyses include the following:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative

⁵ CEQA Guidelines Section 15355.

Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.

- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.
- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

As noted above, where a cumulative impact is significant when compared to existing or baseline conditions, the analysis must address whether the project's contribution to the significant cumulative impact is "considerable." If the contribution of the project is considerable, then the EIR must identify potentially feasible measures that could avoid or reduce the magnitude of the project's contribution to a less-than-considerable level. If the project's contribution is not considerable, it is considered less than significant and no mitigation of the project contribution is required.⁶ The cumulative impacts analysis is formatted in the same manner as the project-specific impacts, as shown above.

3.0.3 Issues Previously Determined to be Less Than Significant

CEQA requires that the discussion of any significant effect on the environment address substantial, or potentially substantial, adverse changes in the physical conditions existing within the vicinity of the project. Pursuant to CEQA and CEQA Guidelines Section 15128, a lead agency need not provide a detailed discussion of the environmental effects that would not be significant, and may instead provide a brief statement of dismissal for applicable environmental issues. Upon review of the project, and based on the preliminary analysis contained within the Initial Study prepared for the project (see **Appendix A**), the County determined that due to the physical characteristics of the project site and the project as proposed, several environmental issues would involve less-than-significant impacts and therefore would not require further analysis within the Draft EIR. The discussions below provide brief rationales for the determinations that these issues do not require further consideration in this EIR, as the project would not result in significant environmental effects on the following resources.

Cultural and Tribal Cultural Resources

Issues associated with this topic were evaluated in the Initial Study (see Appendix A), and were found to be less than significant. What follows here is a summary of those findings.

For this topic, a significant impact would occur if the project could cause a substantial adverse change to a historical resource, (i.e., historic-period architectural resources or the built environment, including buildings, structures, and objects), archaeological resource, or tribal

⁶ State CEQA Guidelines Section 15130(a)(2).

cultural resource. A substantial adverse change includes the physical demolition, destruction, relocation, or alteration of the resource.

As part of the Initial Study's preparation, a cultural resources investigation was conducted for the project that included a records search the Central California Information Center (CCIC) of the California Historical Resources Information System at California State University Stanislaus, an archaeological pedestrian survey of the project site by an ESA archaeologist, and consultation with California Native American tribes affiliated with the project area.

Staff members at the CCIC of the California Historical Resources Information System at California State University Stanislaus conducted a records search on June 1, 2018 (File No. 10723-O). The records search identified two built-environment historic-period resources were previously recorded within 0.5 miles of the project site and five previously recorded cultural resources (including four Native American archaeological sites consisting of bedrock mortars and artifact scatters) within 0.5 mile of the project site. None of the previously recorded resources identified in the records search are within the project site.

On June 11, 2018, an ESA archaeologist conducted an archaeological pedestrian survey of the project site. Two potentially historic-period roads were identified during survey. The first road is a dirt track accessed from Big Oak Flat Road north of the project site across from Forest Route 1S03. The dirt track is first recorded on a 1990 U.S. Geological Survey (USGS) topographic map (USGS, 1990) and does not appear on earlier maps or aerial photographs. Accordingly, the road is likely ineligible for listing in the California Register of Historical Resources (CRHR) and does not otherwise qualify as a historical resource pursuant to CEQA. The dirt track does not appear to be associated with an important event (CRHR Criterion 1) or significant person (CRHR Criterion 2), nor does the road represent a distinctive method or type of construction (CRHR Criterion 3) or is likely to yield data important to history (CRHR Criterion 4).

The second road identified during the survey is an overgrown road cut originating near the center of the project site that proceeds downslope north-northeast along the east bank of an intermittent drainage and connects with the dirt track near the modern wood shed. No information regarding the construction date or purpose of the road cut segment was identified during the study. The road does not appear on any historic topographic maps or aerial photographs. Accordingly, the road is likely ineligible for listing in the CRHR and does not otherwise qualify as a historical resource pursuant to CEQA. The road cut does not appear to be associated with an important event (CRHR Criterion 1) or significant person (CRHR Criterion 2), nor does the road cut represent a distinctive method or type of construction (CRHR Criterion 3) or is likely to yield data important to history (CRHR Criterion 4).

In summary, no historical resources as defined by CEQA were identified within the project site as a result of the background research and field survey. As the project would not affect any significant historic-period buildings or structures, the project would have no impact on historical resources.

As defined in PRC Section 21074, tribal cultural resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe

that are included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources.

On May 30, 2018, ESA contacted the Native American Heritage Commission (NAHC) by email to request a records search of their Sacred Lands File (SLF) and a list of Native American representatives with cultural affiliation to the project area and vicinity. ESA received a response from the NAHC on June 14, 2018 stating that the SLF has no record of any resources in the project site. The reply also included a list of two Native American representatives affiliated with the project area. On November 5, 2019, the County conveyed AB 52 consultation request letters via certified mail to the identified tribal contacts (Chicken Ranch Rancheria and Tuolumne Band of Me-Wuk). No replies or requests for consultation were received.

The cultural resources investigation determined that the project would not cause a substantial adverse change to a historical resource, archaeological resource, or tribal cultural resource. Although no significant archaeological resources or tribal cultural resources were identified, the potential remains that archaeological resources or tribal cultural resources could be encountered during project-related ground-disturbing activities. If any such resources were encountered and found to qualify as a historical resource or unique archaeological resource for CEQA purposes, project-related impacts to the resources could be significant. In addition, while there is no indication that the project site has been used for burial purposes in the recent or distant past, and it is unlikely that human remains would be encountered in the project site, damage to human remains would be a potentially significant impact.

Implementation Measure 13.B.f of the Tuolumne County General Plan directs the County to condition discretionary entitlements for any new development that requires review under CEQA and which has the potential to impact subsurface cultural resources to require such development to comply with PRC Section 21083.2, which specifies the procedures for identifying and mitigating adverse effects to unique archaeological resources, and Section 21084, which specifies that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment and defines historical resource as a resource listed in, or determined to be eligible for listing in, the CRHR. Implementation Measure 13.B.f also requires that if subsurface cultural resources are discovered during the construction process, construction shall cease until a qualified professional as defined in Title 14 of the Tuolumne County Ordinance Code has evaluated the site. If the resource is determined to be a unique archaeological resource, then the provisions of mitigation for impacts to archaeological resources contained in PRC Section 21083.2 shall be implemented, and construction work may continue on other parts of the construction site while archaeological evaluation and mitigation are being implemented.

In addition, California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097.98.

There is no indication that the project site has been used for burial purposes in the recent or distant past. If human remains are discovered during any construction activities, potentially

damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the project applicant shall notify the Tuolumne County coroner and the NAHC immediately, according to PRC Section 5097.98 and the Health and Safety Code. If the remains are determined by the NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the archaeologist, the NAHC-designated Most Likely Descendant, and the landowner, shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.98.

The project's required compliance with Implementation Measure 13.B.f of the Tuolumne County General Plan, Health and Safety Code Sections 7050.5 and 7052, and PRC Section 5097.98 would ensure that impacts to subsurface archaeological resources, tribal cultural resources, historical resources, and human remains would be less than significant, and this issue is not further addressed in this EIR.

Energy

Project construction activities would include, but not be limited to, grading, clearing of vegetation, minimal excavation for tent pads, and establishment of access roads. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for vendor trucks bringing concrete and other materials to the project site, construction equipment used on the project site, and construction workers traveling to and from the project site. Project construction would be performed by professional contractors and would not be anticipated to result in inefficient or unnecessary consumption of fuel resources. While some construction may occur during early evening (but no later than 7:00 p.m. Monday through Saturday as discussed in Section 3.6, *Noise*), electricity consumption for construction lighting would not be anticipated to have an adverse impact on available electricity supplies and infrastructure. Therefore, no impacts on electricity supply and infrastructure associated with short-term construction activities would occur. Natural gas is not anticipated to be consumed in any substantial quantities during construction of the project.

Operation of the project is not anticipated to substantially increase the demand for electricity or natural resources. Electric power for the camp would be provided by a local utility company, but most electricity demand would be met using low voltage solar systems. Lighting for the lobby, common areas, and tents would be low voltage solar lighting. All light fixtures and the use thereof would be International Dark Sky Association compliant, while still providing safety and guidance for guests. Heating within the guest tents would be provided on an as-needed basis through the use of wood heating stoves using locally-sourced wood supplies.

The project would be consistent with and support the goals of the Tuolumne County General Plan, including encouraging land uses which maximize the efficient use of energy and facilitate the use of renewable energy resources in order to reduce dependence on imported and non-renewable energy supplies. Neither construction nor operation of the project would result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This issue is not further addressed in this EIR.

Geology, Soils, and Seismicity

Most of the issues associated with this topic were evaluated in the Initial Study (see Appendix A), and were found to be less than significant. What follows here is a summary of those findings.

According to the California Department of Conservation (CDC), Division of Mines and Geology, the project site is not located within a delineated Alquist-Priolo Earthquake Fault Zone or Landslide and Liquefaction Zone (CDC, 2018). Because the project is not located in an area considered at high seismic risk, it is not expected to expose people or structures to earthquake risk, including strong seismic ground shaking, seismic-related ground failure, liquefaction, or landslides. In addition, slopes in the project area are relatively modest and pose no threat of landslides. Therefore, the project would result in no impact, and this issue is not further addressed in this EIR.

Potential soil erosion from storm events is addressed in Section 3.5, *Hydrology and Water Quality/Utilities and Service Systems*. Construction of the project would require site preparation which would expose surface soil materials to rainfall, potentially resulting in the removal and transport of these materials to ephemeral drainages within the project site. The project area is subject to the Central Valley Regional Water Quality Control Board (CVRWQCB) water quality standards. The project would require a Storm Water Construction General Permit (General Permit 2009-009-DWQ) from the CVRWQCB, which requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared for the site in accordance with National Pollutant Discharge Elimination System (NPDES) requirements (see Section 3.5, *Hydrology and Water Quality/Utilities and Service Systems*). The construction contractor would be required to protect surface water quality by preventing eroded material or contaminants from entering waterways during construction through the use of best management practices (BMPs). The SWPPP lists potential sources of impacts to surface waters and BMPs that are being used to minimize the likelihood of those impacts. Conformance with these erosion control measures in addition to mitigation measures included in Section 3.5, *Hydrology and Water Quality/Utilities and Service Systems*, and Tuolumne County's Grading Ordinance (Chapter 12.20) would reduce potential impacts to a less-than-significant level.

The soils types found on-site would be expected to contain higher clay content than that of the surface. Expansive soil materials are encountered throughout the state and are generally addressed through standardized foundation engineering practices. Compliance with state standards and practices, as well as application of the existing regulations identified in the California Building Code, as amended by the Tuolumne County Ordinance Code, would minimize the risk associated with development of the proposed project. Further, since the project would develop no permanent structures, typical foundation and structural constraints associated with expansive soils would not be applicable. Consequently, this impact is considered less than significant, and this issue is not further addressed in this EIR.

The ability of site soils to support the proposed wastewater system without adverse impacts from runoff is addressed in Section 3.5, *Hydrology and Water Quality/Utilities and Service Systems*, as is the site's soils suitability for supporting the proposed septic system.

Greenhouse Gas Emissions

This issue was evaluated in the Initial Study (see Appendix A), and was found to be less than significant. What follows here is a summary of those findings, as updated to reflect additional information and analysis that has been incorporated since the Initial Study's preparation.

Greenhouse gases (GHGs) trap heat by preventing some of the solar radiation that hits the earth from being reflected back into space. Some GHGs occur naturally and are needed to keep the earth's surface habitable. Over the past 100 years, human activities have substantially increased the concentration of GHGs in our atmosphere. This has intensified the natural greenhouse effect, increasing average global temperatures.

Carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are the principal GHGs associated with land use projects. CO₂, CH₄, and N₂O occur naturally, and through human activity. Emissions of CO₂ are largely by-products of fossil fuel combustion and CH₄ results from off gassing⁷ associated with agricultural practices and landfills.

CO₂ is the reference gas for climate change because it is the predominant GHG emitted. The effect that each of the aforementioned gases can have on global warming is a combination of the mass of their emissions and their global warming potential (GWP). GWP indicates, on a pound-for-pound basis, how much a gas contributes to global warming relative to how much warming would be predicted to be caused by the same mass of CO₂. CH₄ and N₂O are substantially more potent GHGs than CO₂, with 100-year GWPs of 28 and 265 times that of CO₂, respectively.

In emissions inventories, GHG emissions are typically reported as metric tons of CO₂ equivalents (CO₂e). CO₂e are calculated as the product of the mass emitted of a given GHG and its specific GWP. While CH₄ and N₂O have much higher GWPs than CO₂, CO₂ is emitted in such vastly higher quantities that it accounts for the majority of GHG emissions in CO₂e.

In 2012, the Tuolumne County Transportation Council conducted a regional blueprint planning effort which developed a countywide GHG emissions inventory (including incorporated and unincorporated areas), which evaluated existing (2010) GHG emissions, and projected (2020, 2030, and 2040) emissions for three growth scenarios. It also identified policies and measures Tuolumne County and land use project applicants can implement to reduce GHG emissions consistent with Assembly Bill (AB) 32 and prepare for the potential impacts of climate change. In 2010, Tuolumne County emitted approximately 782,846 metric tons of carbon dioxide equivalent GHG emissions (MT CO₂e) as a result of activities and operations that took place within the transportation, residential (energy consumption), non-residential (energy consumption), off-road vehicles and equipment, agriculture and forestry, wastewater, and solid waste sectors. The transportation sector, which accounts for GHG emissions from fuel used to power the cars and trucks that move goods and people, was the largest contributor with 58 percent of the region's total GHG emissions (Rincon, 2012). Further, the GHG Study identified a CEQA significance threshold of 4.6 Metric Tons of CO₂e per year per service population applicable in Tuolumne County. However, this threshold was developed based on achieving GHG reductions for year

⁷ Off-gassing is defined as the release of chemicals under normal conditions of temperature and pressure.

2020 as identified in the initial 2008 Climate Change Scoping Plan developed by CARB to address AB 32. The First Update to the Scoping Plan was approved by the California Air Resources Board (CARB) in May 2014 and built upon the initial Scoping Plan with new strategies and recommendations (CARB, 2014). CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update) in December 2017. The 2017 Scoping Plan Update outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels (CARB, 2017).

Consequently, project emissions at full project buildout were compared to an adjusted 2030 threshold of 2.7 MT of CO₂e per service population. This 2030 threshold was calculated based on the GHG reduction goal established under SB 32 and Governor's Executive Order B-30-15 (40 percent reduction below 1990 levels by 2030, taking into account the 1990 emissions levels). Emissions in excess of the 2030 threshold of 2.7 MT of CO₂e per service population could impede attainment of statewide GHG reduction targets for 2030 established under SB 32. See Appendix E of this EIR for the derivation of, and substantiation for, using this threshold.

Construction of the project would generate GHG emissions from a variety of sources, including off-road construction equipment and on-road worker, vendor, and hauling vehicles. Emissions from all construction emission sources were estimated using the CalEEMod emission estimator model version 2016.3.2. Peak construction-related GHG emissions would total 477 metric tons of CO₂e. These emissions would be temporary and last only for the duration of construction activities, approximately five to six months.

Table 3.0-1 summarizes the GHG emissions that would result from operation of uses under the project. The table includes those emission sources such as area sources (heating stoves), transportation, operational electricity consumption, solid waste disposal, water usage and wastewater generation. These emission estimates are conservative as the modeling effort assumed a motel land use as a proxy for the proposed campground. As there would be no natural gas service from the local utility at this rural site for the proposed project, no natural gas demand was considered. Energy demand associated with the assumed motel use would consider air conditioning and other sources that would not be present in the campgrounds and, hence, the emissions associated with the energy component are very conservative.

As shown in Table 3.0-1, emissions of GHGs under a worst-case scenario using motel energy demand assumptions would be below the County's CEQA threshold as well as below an adjusted threshold reflecting year 2030 GHG reduction targets adopted in the 2017 Update to the State's Climate Change Scoping Plan. The Supreme Court ruled in *Cleveland National Forest v. San Diego Association of Governments* (2017) that SANDAG was not required to use the Executive Order's 2050 goal as a significance threshold for GHG impacts because: (1) it is not an "adopted" target within the meaning of CEQA Guidelines section 15064.4(b)(2); (2) the Executive Order does not specify any plan or implementation measures to achieve its goal; and (3) there is no regulatory guidance on how the Executive Order's goal. Therefore, no associated threshold for year 2050 was developed.

**TABLE 3.0-1
 OPERATIONAL GHG EMISSIONS (METRIC TONS PER YEAR)**

Emission Source	Total Emissions (MT/Year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Area Sources (heating stoves)	206	0.79	<1	226
Energy Sources	137	<1	<1	138
Mobile Sources	215	<1	<1	215
Solid Waste	11.0	0.65	0	27.3
Water and Wastewater	1.92	0.57	<1	16.8
Generator	9.83	<1	<1	10.3
Total	581	2.01	<1	633
Service population 99 tents with 2.5 persons/tent				248
GHG Emissions per service population				2.6
Tuolumne County GHG Threshold				4.6
Adjusted Tuolumne County GHG Threshold to reflect year 2030 statewide reduction targets				2.7
Exceeds Significance Threshold?				No

NOTE: Columns may not total precisely due to rounding.

SOURCE: ESA, 2019 (Appendix E).

In addition, the presence of the Yosemite Area Regional Transportation System (YARTS) bus stops at the entrance to the Yosemite Under Canvas facility would provide guests with the option to use the regional public transit system to access Yosemite National Park and other regional destinations. This has the potential to further reduce operational GHG emissions through trip reductions. Consequently, the proposed project would have a less-than-significant impact with respect to generation of GHG emissions that may have a significant impact on the environment.

CEQA Guidelines Sections 15064.4 and 15183.5 address the analysis and determination of significant impacts from a proposed project’s GHG emissions and allow for projects that are consistent with an adopted GHG reduction strategy to conclude that the project’s GHG impact is less than significant. Because the project’s emissions would be below the threshold established in the Tuolumne County Regional Blueprint Greenhouse Gas Study, which was prepared to develop a GHG emission reduction target consistent with the goals of AB 32 and subsequently adjusted to reflect year 2030 GHG reduction targets adopted in the 2017 Update to the State’s Climate Change Scoping Plan, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The impact is therefore is less than significant, and this issue is not further addressed in this EIR.

Hazards and Hazardous Materials (Not Including Wildfire Hazards)

Most of the issues associated with this topic were evaluated in the Initial Study (see Appendix A), and were found to be less than significant. What follows here is a summary of those findings, as updated to reflect current search results from hazardous materials databases. The following

discussion addresses issues related to hazards and hazardous materials that do not require further consideration in this EIR, including the routine transport, use, or disposal of hazardous materials; the release of hazardous materials into the environment; hazardous emissions or handling of hazardous materials within one-quarter mile of an existing or proposed school; hazardous materials sites compiled pursuant to Government Code Section 65962.5; airport- or airstrip-related hazards; and hazards related to interference with an adopted emergency response plan or emergency evacuation plan. Project impacts related to fire risk are addressed in Section 3.9, *Wildfire*.

The term “hazardous material” is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment (State of California, Health and Safety Code, Chapter 6.95, Section 25501(o)). In some cases, past industrial or commercial uses can result in spills or leaks of hazardous materials and petroleum to the ground, resulting in soil and groundwater contamination. Federal and state laws require that soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels must be handled and disposed as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations (CCR), Title 22, Section 66261.20-24, contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste. The use of hazardous materials and disposal of hazardous wastes are subject to numerous laws and regulations at all levels of government.

Information about hazardous materials sites in the project area was collected by conducting a review of the California Environmental Protection Agency’s Cortese List Data Resources (Cortese List). The Cortese List includes the following data resources that provide information regarding the facilities or sites identified as meeting the Cortese List requirements: the list of Hazardous Waste and Substances sites from the Department of Toxic Substances Control (DTSC) EnviroStor database; the list of Leaking Underground Storage Tank sites from the GeoTracker database; the list of solid waste disposal sites identified by the Water Board; the list of active Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board; and the list of hazardous waste facilities subject to corrective action pursuant to Health and Safety Code Section 25187.5 identified by DTSC. The Cortese List is a reporting document used by the state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The Cortese List is updated at least annually, in compliance with California regulations (California Code of Regulations, Title 22, Section 65964.6(a)(4)). The Cortese List includes federal superfund sites, state response sites, non-operating hazardous waste sites, voluntary cleanup sites, and school cleanup sites. Based on a review of the Cortese List conducted in May 2020, no listed active sites are located within 0.5 miles of the project site (DTSC, 2020; SWRCB, 2020). As the project site is not included on a list of hazardous material sites pursuant to Government Code Section 6592.5, there would be no significant hazard to the public or the environment related to documented hazardous materials sites, and this issue is not further addressed in this EIR.

Construction activities associated with the project would involve the transport and use of limited quantities of fuels, lubricants, oils, solvents, and other potentially hazardous materials at the project site for the purposes of construction and equipment maintenance. The transport, storage,

and use of hazardous materials is regulated through various federal, state, and local laws and policies, enforced by an array of departments at local, municipal, and state levels. The use of hazardous materials associated with construction activities for their intended purposes in compliance with these regulations would therefore not represent a significant risk to public health or the environment. This impact is less than significant, and this issue is not further addressed in this EIR.

Operation of the project would likely involve the transport, storage, use, and/or disposal of limited quantities of common hazardous materials such as fuels, solvents, and cleaners. The use of such materials is not anticipated to occur in such quantities that would represent a significant hazard to the environment or to individuals working, residing, or recreating in the project area. Similarly, spills of small amounts of these common types of materials would not represent a significant hazard to the environment or the public. Operation of the project would occur in compliance with existing hazardous materials regulations, and impacts related to the transport, use, or disposal of hazardous materials resulting from operation of the project would be less than significant. This issue is not further addressed in this EIR.

The project would not emit hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The nearest school is Tenaya Elementary School, located approximately fourteen miles west of the project site. Therefore, the project would result in no impact, and this issue is not further addressed in this EIR.

The project is not located within two miles of a public or private airport or airstrip. The nearest airport to the project site is Pine Mountain Lake Airport, approximately twelve miles northwest of the project site. The project would result in no airport- or airstrip-related hazards, and this issue is not further addressed in this EIR.

The project site would be accessed from Hardin Flat Road which is a two lane roadway. According to the County's Emergency Response Plan, the project site does not contain any emergency facilities, nor does it serve as an emergency evacuation route (Tuolumne County, 2012). During construction, Hardin Flat Road would remain open. During operation of the project, adequate access for emergency vehicles via Hardin Flat Road and connecting roadways would remain available. The project would not result in a substantial alteration to the design or capacity of any public road, nor would it impair or interfere with evacuation procedures. Therefore, impacts related to the interference of an adopted emergency response plan or emergency evacuation plan would be less than significant, and this issue is not further addressed in this EIR.

Land Use and Planning

This issue was evaluated in the Initial Study (see Appendix A), and was found to be less than significant. What follows here is a summary of those findings, as updated to reflect additional information and analysis that has been incorporated since the Initial Study's preparation.

The project site is comprised of two parcels (APNs 68-120-62 and -63) totaling approximately 80.1 acres. The entirety of the site is designated as Parks and Recreation (R/P) by the Tuolumne County General Plan. The purpose of the R/P land use designation is to provide for recreational uses of a commercial nature to serve the tourist industry as well as provide leisure activities to the County's residents. Allowed land uses include parks, camping facilities, recreational vehicle parks, ski and other resort facilities, marinas, commercial uses in support of recreational facilities, and public utility and safety facilities.

The zoning designation for the western half of the project site is Commercial Recreation (C-K), and the zoning for the eastern half is Commercial Recreation/Open Space (C-K/O-1). As shown in Figures 2-2 and 2-3 in Chapter 3, *Project Description*, the bulk of the project's development would occur on the western C-K portion of the site, though some roadways, tent sites, and the leach field would also be constructed on the C-K/O-1 portion of the site. As defined in the County's Zoning Code, the O-1 district is intended to preserve and protect areas of valuable wildlife habitat consistent with the wildlife policies of the General Plan. Specified uses are allowed within the O-1 district with issuance of a use permit if those uses do not conflict with the wildlife habitat values of the property. Those uses include general recreation with no buildings, vegetation removal, placement of utilities and sewage systems, and roads and bridges where access through another district is not feasible (County Code Chapter 17.15). In the case of the proposed project, no buildings are proposed in the C-K/O-1 portion of the site; just non-permanent tent decks and a mobile bathroom unit. Ingress and egress to and from the site running solely through the C-K portion of the site is not feasible, since fire department requirements call for two points of ingress and egress to and from the project site, so at least one point of access would necessarily need to pass through the C-K/O-1 district. Based on these considerations, issuance of a use permit for development within the C-K/O-1 district would be allowed if it could be shown that the use would not conflict with the wildlife habitat values of the parcel.

As discussed in Section 3.4, *Biological Resources*, of this EIR, potentially valuable wildlife habitat on the project site includes wetlands, ephemeral drainages, nesting bird habitat, and potential bat roosting habitat. Each of these features is present on the C-K/O-1 portion of the project site, and the project would be in conflict with the requirements of the O-1 use if it were to significantly impact those features. However, as also noted in Section 3.4, *Biological Resources*, all project-related impacts to these resources would be less than significant: 1) the seasonal wetland and the seep on the site would be wholly avoided; 2) the ephemeral drainages on the site would also be avoided, with the exception of 0.003 acre of impacts resulting from installation of culverted crossings at three locations, but those impacts would be mitigated through preservation or creation of on-site wetlands at a ratio of 1:1 or more; 3) impacts to nesting bird and bat roosting habitat would be avoided through pre-construction surveys and avoidance of nests and roosting sites if any are found. Based on these considerations, the potentially valuable wildlife habitat on the site would not be significantly affected, and the impact would therefore be less than significant, and issuance of a use permit would not conflict with the provisions of the County's zoning code.

Section 17.68.100 of the Ordinance Code requires a Site Development Permit prior to construction or expansion of building projects in the C-K district to ensure that certain types of

proposed developments will serve to achieve a design which is desirable. The project proponent has therefore applied for Site Development Permit SDP18-002.

The project proposes to develop 99 campsites and associated infrastructure. Accordingly, the project would be consistent with the County General Plan land use designations as well as the County Ordinance Code zoning designations. Additionally, the project would not conflict with any policies or regulations.

The project site is surrounded by undeveloped land and scattered rural residences. Therefore, the project would have no impact related to physically dividing an established community.

The project is not within a habitat conservation plan (HCP) or natural community conservation plan. The nearest HCP is the PG&E San Joaquin Valley Operation and Maintenance HCP, located approximately ten miles south, in Mariposa County (CDFW, 2017).

As described above, the project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect, nor would the project conflict with any applicable habitat conservation plan or natural community conservation plan or physically divide an established community. These issues are not addressed further in this EIR.

Mineral Resources

This issue was evaluated in the Initial Study (see Appendix A), and was found to be less than significant. What follows here is a summary of those findings.

Tuolumne County contains a wide variety of mineral resources. Both the USGS and the California Geological Survey (CGS) have evaluated the potential locations and production capacity of various types of extractive resources throughout the area. No known mineral resource recovery sites have been identified in the immediate project vicinity (USGS, 2017). Additionally, Policy 4.E.1 of the Conservation Element of the Tuolumne County General Plan directs the County to protect lands classified as significant Mineral Resource Zone-2 (MRZ-2) by the State Department of Conservation Division of Mines and Geology, and meeting the criteria established in the General Plan for Mineral Preserve Zone (MPZ) overlay, from conflicts, such as incompatible development on surrounding land, which might prevent future mining activities. The State of California Division of Mines and Geology surveyed Tuolumne County for the presence of economically important mineral resources. The project site does not contain areas classified as MRZ-2. Therefore, the project would not result in the loss of availability of a known mineral resource or affect a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. This issue is not further addressed in this EIR.

Population and Housing

This issue was evaluated in the Initial Study (see Appendix A), and was found to be less than significant. What follows here is a summary of those findings.

The project would have a significant population or housing impact if it would 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), or if it would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The project proposes to develop 99 campsites and associated infrastructure on an undeveloped site. The project does not include new homes and would not displace existing housing. Minor road and utilities infrastructure would be developed to serve the project site exclusively and would not facilitate other new development.

Between 20 and 30 staff members would be employed at the site, with 10 to 15 personnel working on the site at any given time. Employees would largely be drawn from the local community, though some could be recruited from elsewhere. If they desire, seasonal employees from elsewhere without housing in the local community would be housed in rental units facilitated and paid for by the project proponent. Of the 28,919 housing units within the unincorporated area of Tuolumne County, 9,019, or 31.2 percent were vacant in 2016 according to the 2016 American Community Survey prepared by the U.S. Census Bureau. However, approximately 7,281 (81 percent) of these vacancies were vacation homes located at higher elevations within the County where winter weather is severe. When recreational homes are subtracted from the vacancy rate, the overall vacancy rate drops to 3.3 percent, the rental vacancy rate is 5.2 percent, and the homeowner vacancy rate is 2.5 percent (Tuolumne County, 2019). By comparison, the national rental vacancy rate was 6.6 percent in the first quarter of 2020 (U.S. Census, 2020a) and 3.4 percent in California (U.S. Census, 2020b). Based on this information, Tuolumne County's rental vacancy rate is about midway between the California statewide vacancy rate and the national vacancy rate, which is indicative that sufficient rental housing would be available if needed. Therefore, there is anticipated to be available housing for any employees recruited from outside of Tuolumne County, and the project would not require the construction of new homes as a result of its business operations.

Consequently, the project would not induce substantial unplanned population growth either directly through the development of new homes or businesses or indirectly through the extension of roads or other infrastructure. Nor would the project displace existing people or housing, necessitating the construction of replacement housing elsewhere. This issue is not further addressed in this EIR.

3.0.4 References

California Air Resources Board (CARB), 2008. *Climate Change Scoping Plan: A Framework for Change*. Published December 2008; amended version posted May 11, 2009. Available: <https://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>, accessed May 2020.

———, 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework Pursuant to AB 32*. Published May 2015. <https://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>, accessed March 2019.

- , 2017. *California's 2017 Climate Change Scoping Plan*. Published November 2017. <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>, accessed February 2019.
- California Department of Conservation (CDC), 2018. Earthquake Fault Zones Interactive Map. Available: <http://maps.conservation.ca.gov/cgs/fam/>.
- California Department of Fish and Wildlife (CDFW), 2017. California Regional Conservation Plan. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>. Accessed June 26, 2018.
- Department of Toxic Substances Control (DTSC), 2018. EnviroStor. Available: <https://www.envirostor.dtsc.ca.gov/public/map/>. Accessed May 5, 2020.
- Employee Development Department (EDD), 2019. Monthly Labor Force Data for Tuolumne County, September 2019. Available: <https://www.labormarketinfo.edd.ca.gov>. Accessed October 24, 2019.
- Rincon Consultants, 2012. *Tuolumne County Regional Blueprint Greenhouse Gas Study*. January 2012.
- State Water Resources Control Board (SWRCB), 2020. GeoTracker. Available: https://geotracker.waterboards.ca.gov/map/?global_id=T0610900093. Accessed May 5, 2020.
- Tuolumne County, 2012. Emergency Operations Plan for Tuolumne County. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/6165/Tuolumne-County-EOP>. Accessed June 28, 2018.
- , 2018. Tuolumne County Code of Ordinances. Available: <https://www.tuolumnecounty.ca.gov/165/Tuolumne-County-Ordinance-Code#top>. Accessed June 27, 2018.
- , 2019. Tuolumne County Housing Element Update. Adopted by the Board of Supervisors September 3, 2019. Resolution 68-19. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/13316/County-of-Tuolumne-Housing-Element-2019-Update-Adopted-9-3-2019>. Accessed May 6, 2020.
- U.S. Census Bureau, 2020a. Table 1: Rental and Homeowner Vacancy Rates for the United States, 1965-2020. Available: <https://www.census.gov/housing/hvs/data/q120ind.html>. Accessed May 6, 2020.
- , 2020b. Table 1: Quarterly Vacancy and Homeownership Rates by State and MSA. Available: <https://www.census.gov/housing/hvs/data/rates.html>. Accessed May 6, 2020.
- U.S. Geological Survey (USGS), 2017. Mineral Resources Online Spatial Data. Available: <http://mrdata.usgs.gov/mineral-resources/mrds-us.html>. Accessed June 28, 2018.

3.1 Aesthetics

3.1.1 Introduction

This section addresses the existing visual characteristics in and around the project site and considers potential changes to the visual conditions that would result from implementation of the project. The *Environmental Setting* includes descriptions of existing visual characteristics of the project site and vicinity. Applicable policies and development review requirements relevant to visual resource issues are provided. The impact discussion evaluates potential impacts to aesthetic and visual resources resulting from implementation of the project in the context of existing conditions based on analyses of photographs, site reconnaissance, and project data.

3.1.2 Environmental Setting

The scenic resources of Tuolumne County are valuable both in that they are a primary determinant of quality of life for area residents and in their capacity to promote tourism. In particular, visitors are attracted to Yosemite National Park, the Stanislaus National Forest, and historic Gold Rush communities. Private vehicles are the primary mode of transportation within the County, and views from area roadways are particularly important in defining the aesthetic experience of residents and recreational visitors.

Located in a relatively undeveloped area of Tuolumne County, the project area is characterized by mixed conifer forest, the Sierra Nevada Mountain Range, and State Route 120 (SR-120).

The approximately 80-acre project site consists of undeveloped land previously used for occasional forestry and logging. Land uses adjacent to the project site include scattered private residences, recreation facilities, and open space. The nearest residence is located approximately 1,300 feet southeast of the project site.

Much of the project site and surrounding area were burned by the Rim Fire in 2013, and the effects of the fire are visually evidenced by the numerous dead, damaged, and downed trees on the project site and adjacent areas. These fire-damaged elements of the landscape exist within an otherwise healthy and recovering natural landscape.

The project site and immediate vicinity are relatively undisturbed by development, with the exception of SR-120 and a few graded local roads, including Hardin Flat Road, which extends from SR-120 generally in a southeastern direction along the eastern edges of the project site. Views into the interior of the project site from SR-120 and Hardin Flat Road are largely obscured by trees and other vegetation, as well as hillslopes and other variations in the topography and landforms of the site.

The project site is located within a rural setting where lighting is minimal. Scattered rural residential land uses and passing vehicles generate the primary sources of nighttime light and daytime glare in the project vicinity.

An aerial view of the project site and the locations of photographic views included in subsequent figures are provided on **Figure 3.1-1**. Photographic views of the project site from select and regularly traversed publicly accessible vantage points are provided on **Figure 3.1-2** through **Figure 3.1-4**.

3.1.3 Regulatory Framework

Federal

There are no federal regulations pertaining to visual resources that are applicable to the proposed project.

State

California Scenic Highway Program

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view.

California Energy Commission Building Energy Efficiency Standards for Outdoor Lighting

Title 24, Parts 1 and 6, Building Energy Efficiency Standards, adopted by the California Energy Commission on November 5, 2003, includes requirements for outdoor lighting. These standards are updated on a 3-year cycle. The last update will take effect in 2020. These requirements vary according to which "Lighting Zone" in which the equipment is located. The standards contain lighting power (i.e., maximum zonal lumens) allowances for newly installed equipment and specific alterations that are dependent on the Lighting Zone in which the project is located. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50 percent of the existing luminaires for each outdoor lighting application that is regulated by the standards must meet the lighting power allowances for newly installed equipment.

The allowed lighting power is based on the brightness of existing lighting in the surrounding area. This is because the human eye adapts to darker surrounding conditions, and less light is needed to see properly; when the surrounding conditions get brighter, more light is needed to see. Providing greater power than is needed potentially leads to debilitating glare and to an increasing spiral of brightness as over-bright projects become the surrounding conditions for future projects causing future projects to unnecessarily consume energy and contribute to light pollution.



SOURCE: USDA, 2016; ESA, 2018

Yosemite Under Canvas Project

Figure 3.1-1
Photo Location Map





Viewpoint 1: View toward the project site from Sawmill Mountain Road and State Route 120.
View facing southeast.



Viewpoint 2: View toward the project site from State Route 120. View facing south.

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SOURCE: ESA, 2019

Yosemite Under Canvas Project

Figure 3.1-2
Viewpoints 1 and 2





Viewpoint 3: View toward the project site from Hardin Flat Road. View facing south.



Viewpoint 4: View toward the project site from Hardin Flat Road. View facing southwest.

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SOURCE: ESA, 2019

Yosemite Under Canvas Project

Figure 3.1-3
Viewpoints 3 and 4





Viewpoint 5: View toward the project site from Hardin Flat Road. View facing west.



Viewpoint 6: View toward the project site from State Route 120. View facing west.

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SOURCE: ESA, 2019

Yosemite Under Canvas Project

Figure 3.1-4
Viewpoints 5 and 6



The California Energy Commission defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas as well as the legal boundaries of wilderness and park areas. The smallest amount of power is allowed in Lighting Zone 1, and increasingly more power is allowed in Lighting Zones 2, 3, and 4. By default, government-designated parks, recreation areas, and wildlife preserves are designated Lighting Zone 1; rural areas are designated Lighting Zone 2; and urban areas are designated Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government.

Local

Tuolumne County General Plan

The following policies and implementation programs from the Tuolumne County General Plan are applicable to the project.

Community Development and Design Element

Policy 1.B.3: Require new commercial development to be designed to minimize the visual impact of parking areas on public roads and on public viewsheds.

Implementation Program 1.B.g: Require proponents of new commercial development to locate parking areas behind buildings or sufficiently screen them from public roads and public viewsheds, or, if locating behind buildings and screening are determined to be infeasible, provide other landscaping or design features to visually enhance the parking areas.

Policy 1.B.5: Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from off-site sensitive uses, and shall be hooded, shielded, and located to direct light downward and prevent glare.

Policy 1.F.4: Encourage commercial development to be designed in an architectural style that reflects the County's indigenous materials or is compatible with the historic Mother Lode design features or is consistent with the architectural guidelines in communities with design review.

Natural Resources Element

Policy 16.A.1: Recognize that agricultural and timberlands have historically defined the rural character and scenic beauty of Tuolumne County.

Policy 16.A.3: Conserve the natural scenic quality of hillsides and hilltops throughout Tuolumne County.

Implementation Program 16.A.e: Encourage hillside development to be designed and located to be compatible with, rather than imposed on, the landscape and environment by minimizing the amount of grading and topographical alteration it necessitates.

Implementation Program 16.A.f: Maintain hillside development guidelines which provide recommendations for integrating new construction with hillsides and hilltops. The guidelines should address fire-safe construction techniques, color and building materials, vegetation retention, retaining wall enhancement, alternative road construction techniques

to reduce cuts and fills, and illustrate techniques for blending new construction with the surrounding hillsides and hilltops.

Implementation Program 16.A.g: Encourage the design of new development to blend with the natural contour of the land and the natural vegetation.

Implementation Program 16.A.h: Regulate signage in terms of size, quantity and location in commercial and industrial portions of the County in order to improve the visual attractiveness and appeal of the County to new business, and to protect and enhance its visitor-serving and recreational activities.

Policy 16.A.5: Conserve scenic resources, landmarks and the natural landscape.

Implementation Program 16.A.i: Provide flexibility in development standards to facilitate the clustering of new development in order to encourage the retention of scenic resources, landmarks and the natural landscape.

Policy 16.A.6: Encourage the protection of clusters of native trees and vegetation and outstanding individual native and non-native trees which help define the character of Tuolumne County.

Implementation Program 16.A.k: Establish an incentive program to retain existing vegetation, such as Heritage Trees, stands of oak woodlands, or clusters of native shrubs within new development.

Implementation Program 16.A.l: Maintain the Premature Removal of Native Oak Trees Ordinance.

Implementation Program 16.A.m: Establish a Heritage Tree Program which:

- Establishes criteria for identifying individual or groves of native and non-native trees and street trees as heritage trees, based on outstanding scenic, historic or biological value and/or the status of the tree as unique in terms of age and/or size when compared to other trees of the same species. Trees considered local landmarks and those contained in the National Register of Big Trees also should be considered as heritage trees.
- Creates programs encouraging the preservation of heritage trees including recognition and public education programs and participation in inter-county and interstate competitions.

Policy 16.A.7: Encourage and support the voluntary conservation of scenic resources through recognition programs and the provision of incentives, such as flexibility in development standards or reductions in appropriate County fees.

3.1.4 Impacts and Mitigation Measures

Significance Criteria

Aesthetic impacts are considered significant if implementation of the project would:

- Have a substantial adverse effect on a scenic vista;

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of public views of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.
 - *Glare.* Glare is considered to be significant if it would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.
 - *Light.* Light is considered significant if it would be cast onto oncoming traffic or residential uses.

Issues not Discussed in Impacts

A scenic vista is generally considered to be a location from which the public can experience unique and exemplary high-quality views, including panoramic views of great breadth and depth, often from elevated vantage points. While scenic views of the Sierra Nevada are prevalent across much of Tuolumne County, principal travel corridors are important to an analysis of scenic vistas because they define the vantage point for the largest number of viewers. These travel corridors include scenic roadways, primarily, as well as Wild and Scenic Rivers.

Although Tuolumne County has many areas of scenic beauty, only three vista points officially designated by Caltrans are located in the County. Two of these vista points are located on SR-120 at Don Pedro Lake, approximately 20 miles west of the project site, and the third is located at the Rim of the World vista point, approximately 4 miles west of the project site on SR-120 (Tuolumne County, 2018). Implementation of the project would have no effect on these visual resources.

Although the County does not currently have any officially designated State Scenic Highways, portions of SR-49 and SR-108, approximately 15 miles west of the project site, and a portion of SR-120 through Yosemite National Park, approximately five miles east of the project site, are locally designated scenic routes. Implementation of the project would have no effect on these visual resources.

Consequently, implementation of the project would not result in a substantial adverse effect on a scenic vista or damage scenic resources in the vicinity of a scenic highway. For these reasons, the first and second significance criteria listed above are not further addressed in this section of the EIR.

Impact Assessment Methodology

The analysis of aesthetics involves a qualitative comparison of the existing built and natural environment to the future built and natural environment and evaluation of the visual changes that would result from implementation of the project. Key view corridors were examined, and existing views to and from the project site were compared to those that would be expected to occur in the future with the project. In addition, the changes proposed in the project were evaluated in the context of adopted County policies and regulations.

Impact Analysis

Impact 3.1-1: Implementation of the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. (*Less than Significant*)

Changes in the visual character or quality of a site affect each individual differently, and thus to some extent are based on subjective and individual perspectives. Implementation of the project would result in visible physical changes within the project site. The project would introduce 99 campsites, reception, dining, and support facilities, and associated infrastructure on a portion of the currently undeveloped project site. The proposed layout for the tent sites and other project elements are shown on Figure 2-3 in Chapter 2, *Project Description*, and in the project design plans in **Appendix C**. The depicted tent sites are approximate locations, and exact tent locations would be determined with completion of final engineering design. In addition, development on the project site would be preceded by an extensive timber salvage program, concurrent with implementation of a hazardous fuel reduction effort to make the site accessible and safe for use. These physical changes would result in changes to the existing visual character of the project site as viewed by members of the local community from vantage points within or immediately adjacent to the developed portions of the project site.

With implementation of the project, a portion of a currently undeveloped wooded site would be cleared of dead, damaged, and fallen timber and developed with modern campground uses, including canvas tents and the reception, dining, and support facilities. Tents would be mounted on wooden decks, and the tents would be removed at the end of each season. Traditional buildings with concrete foundations are not proposed for the project. Communal bathrooms, a commercial kitchen, laundry and housekeeping, and a lobby tent with dining area also would not be permanent fixtures on the land. The closest campground tents to SR-120 and Hardin Flat Road would be more than 500 feet from each roadway. Views of project features and project activities from off-site residences and roadways, including SR-120 and Hardin Flat Road, would be largely obscured by living trees and topography that prevent views into the interior of the project site from these vantage points.

While the project would result in a noticeable change to the visual character of the project site, the introduction of tented camp sites and associated low-profile supporting facilities that would be largely obscured from public view would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Project elements would be of high-quality materials designed to be attractive and visually compatible with the surrounding natural environment.

The project must be consistent with applicable Tuolumne County General Plan policies pertaining to visual quality and compatibility with the surrounding environment. Relevant policies were listed previously in Section 3.1.3. The project would not interfere with County policies to maintain scenic agricultural landscapes, hillsides, hilltops, and landmarks. In addition, because the proposed project would be located within the portion of the project site that is zoned Commercial Recreation (C-K), the project proponent would be required to obtain a site development permit pursuant to Section 17.68.100 of the Tuolumne County Ordinance Code for a

campground use. The purpose of the site development permit is to ensure that developments subject to the permit achieve a design that is appropriate to the surrounding environment.

For these reasons, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and this impact would be **less than significant**.

Mitigation Measure

None required.

Impact 3.1-2: Implementation of the project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. (*Less than Significant*)

In Tuolumne County, sources of light and glare are generally limited to major transportation corridors and clusters of development that include commercial and industrial uses. Nighttime lighting is necessary to provide safe environments (e.g., roadways, sidewalks, and parking lots) and promote nighttime activities (e.g., signs for movie theaters and restaurants).

“Light pollution” refers to all forms of unwanted light in the night sky, including glare, light trespass, sky glow, and over-lighting. Views of the night sky can be an important part of the natural environment, particularly in communities surrounded by extensive open space. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species.

At night, light pollution is present in and around the County. However, light pollution is primarily confined to the developed urban communities, as the vast majority of the County consists of agricultural, natural resource conservation, and open space uses. Specific sources of nighttime illumination include streetlights and vehicular lights associated with roadways, as well as commercial buildings and residences.

Glare is typically produced by exterior building materials, surface paving materials, and vehicles traveling or parked on roads and driveways. Any highly reflective facade materials are of particular concern, as buildings reflect sunlight.

As described in the *Environmental Setting*, the project site is located within a rural setting where lighting is minimal. Scattered rural residential land uses and passing vehicles generate the primary sources of nighttime light and daytime glare in the project vicinity.

The project must be consistent with applicable Tuolumne County General Plan policies intended to preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. Specifically, Policy 1.B.5 requires that new lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from off-site areas, and shall be hooded, shielded, and located to direct light downward and prevent glare.

Accordingly, lighting for the project would be designed and operated to minimize glare, light trespass, sky glow, and over-lighting. Lighting for the lobby tent, common areas, and guest tents would be low-voltage solar lighting. All light fixtures and the use thereof would be International Dark Sky Association (IDA) compliant, while still providing safety and guidance for guests. Incorporated lighting standards would specify that lights would only be on when needed and would only light those areas that require it; lighting would be no brighter than necessary; light-emitting diode (LED) fixtures would utilize color temperatures no greater than 3000 Kelvins to minimize the production of blue light, and all light fixtures would be shielded and pointed downwards. Based on these design features and the limited use of lighting on the site, lighting outputs associated with the project would be well below applicable standards. Further, the nearest offsite receptors to potential project light sources on the site are residences located 1,300 feet to the southeast and 1,400 feet to the north. There is substantial vegetation and topographic variance lying between the potential light sources and the sensitive receptors. Views of the project facilities and of any light emanating from the project would be blocked by these existing natural features.

In addition, the project would not include building materials such as reflective glass and polished surfaces to a degree that could create glare that could result in a public hazard or a substantial annoyance to nearby receptors.

Consequently, implementation of the project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area, and this impact would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

The potential visual impacts of the project must be analyzed in conjunction with past, present, and future development projects which, combined with the project, could result in cumulative impacts. The cumulative context for changes in the visual character of the project vicinity is generally limited to projects within a similar viewshed or along the same roadways within close proximity of the project site. The cumulative context for lighting is the developed areas surrounding the project site that affect views of the night sky.

Projects considered in the cumulative analyses include the following:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative

Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.

- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.
- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

Impact 3.1-3: Implementation of the project, in conjunction with other development, would not substantially degrade the existing visual character or quality of public views of the project area. (*Less than Significant*)

As discussed previously in the *Environmental Setting*, the project site is located in a relatively undeveloped area of Tuolumne characterized by mixed conifer forest, the Sierra Nevada Mountain Range, and SR-120. Land uses adjacent to the project site include scattered private residences, recreation facilities, and open space.

As discussed above in Impact 3.1-3, while the project would result in a noticeable change to the visual character of the project site, the introduction of tented camp sites and associated low-profile supporting facilities that would be largely obscured from public view by living trees and topography would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Project elements would be of high-quality materials designed to be attractive and visually compatible with the surrounding natural environment.

The proposed project and all discretionary development projects in Tuolumne County are subject to adherence to applicable Tuolumne County General Plan policies and regulations pertaining to visual quality and compatibility with the surrounding environment. New development in the project area, including, but not limited to, the project, the Terra Vi Lodge Yosemite project, the Berkeley Tuolumne Restoration project, and the Thousand Trails / Yosemite Lakes RV expansion project are subject to County policies, permit requirements, and environmental reviews, where applicable, aimed to ensure that the projects are designed in a manner that is consistent and compatible with the visual character of the surrounding environment and possess aesthetic quality. Required adherence to these policies, permit requirements, and reviews ensures that cumulative impacts related to visual character and quality would be **less than significant**.

Mitigation Measure

None required.

Impact 3.1-4: Implementation of the project, in conjunction with other development, would not create substantial light or glare which would adversely affect daytime or nighttime views in the area. (*Less than Significant*)

As discussed previously in the *Environmental Setting*, the project site is located within a rural setting where lighting is minimal. Scattered rural residential land uses and passing vehicles generate the primary sources of nighttime light and daytime glare in the project vicinity.

As previously noted, the project and all discretionary development projects in Tuolumne County are subject to adherence to applicable Tuolumne County General Plan policies and intended to preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. Specifically, Policy 1.B.5 requires that new lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from off-site sensitive uses, and shall be hooded, shielded, and located to direct light downward and prevent glare. In addition, development permit requirements and required environmental reviews discourage the use of building materials such as reflective glass and polished surfaces that could create glare that could result in a public hazard or a substantial annoyance to nearby receptors. Required adherence to these policies, permit requirements, and reviews ensures that cumulative impacts related to the production of substantial light or glare that could adversely affect daytime or nighttime views would be **less than significant**.

Mitigation Measure

None required.

3.1.5 References

California Department of Transportation (Caltrans), 2011. California Scenic Highway Mapping System, Tuolumne County. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed June 29, 2018.

Tuolumne County, 2018. Draft Recirculated Environmental Impact Report for the Tuolumne County General Plan Update Project, State Clearinghouse No. 2015082027. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11308/Tuolumne-County-GPU-Recirculated-DEIR-full-report>. Accessed October 14, 2019.

3.2 Agricultural and Forestry Resources

3.2.1 Introduction

This section assesses potential effects on agricultural and forestry resources that could result from implementation of the proposed project. The *Environmental Setting* includes descriptions of existing conditions on the project site and surrounding vicinity pertinent to agriculture and forestry resources. Applicable laws, regulations, and policies relevant to agriculture and forestry resources are provided. The analysis of potential impacts to agricultural and forestry resources is based on the proposed construction and operation of the project, the draft Timber Harvesting Plan prepared by the project applicant, reconnaissance surveys of the project site, and information from the U.S. Department of Agriculture Natural Resources Conservation Service, the California Department of Conservation, the California Department of Forestry and Fire Protection, the Tuolumne County General Plan, and the Tuolumne County Ordinance Code.

3.2.2 Environmental Setting

The approximately 80-acre project site consists of undeveloped land that was previously used for occasional forestry and logging. Adjacent land uses include scattered private residences, recreation facilities, and undeveloped federal lands under the jurisdiction of the U.S. Forest Service. Most of the project site and surrounding vicinity was burned during the 2013 Rim Fire. Since that time, much of the federal and private lands adjacent to the project site have undergone roadside hazard tree removal, timber salvage, fuels management, and reforestation activities to remove excess dead and downed wood that resulted from the fire, and to restore fire-impacted landscapes where appropriate. Similar activities have taken place on the project site. A salvage of fire-killed trees was conducted on the project site in 2014. In areas where tree cover was lost, the landowner replanted trees or facilitated successful natural reestablishment of young trees. However, in spite of these efforts, drought and decline of fire-damaged trees since the initial salvage has led to additional mortality of overstory trees. As a result, significant quantities of downed wood and standing snags remain on the site.

The project site is zoned as Commercial Recreation (C-K) and Open Space-1 (O-1) under the Tuolumne County Ordinance Code and designated as Parks and Recreation (R/P) in the Tuolumne County General Plan. The project site is not zoned as forest land, timberland, or for timber production. The project site is not within a Timberland Production Zone (TPZ) as defined by Tuolumne County or the California Timberland Productivity Act of 1982 (Tuolumne County, 2018).

The California Department of Conservation Farmland Mapping and Monitoring Program has not prepared a map of Tuolumne County (CDC, 2015; Tuolumne County, 2018). However, based on soil types, there is no Prime Farmland, Unique Farmland, or Farmland of Statewide importance on or adjacent to the project site (CDC, 2018; Tuolumne County, 2018).

The project site and surrounding parcels are not under a Williamson Act contract (CDC, 2017a; Tuolumne County, 2018).

3.2.3 Regulatory Framework

Federal

No federal regulations apply to the proposed project as it relates to agriculture and forestry resources.

State

California Department of Conservation Farmland Mapping and Monitoring Program

Typically, agricultural land is considered under CEQA in terms of its designation as Important Farmland under the Farmland Mapping and Monitoring Program (FMMP), which is maintained by the California Department of Conservation. The FMMP defines “Important Farmland” as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, based on soil conditions. Agricultural land under the FMMP is rated according to soil quality and irrigation status. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. Mapping pursuant to the FMMP has not been prepared for Tuolumne County.

California Land Conservation Act

The California Land Conservation Act of 1965 (Government Code Section 51200 et seq.), commonly known as the Williamson Act, provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The Act allows local governments to assess agricultural land based on the income-producing value of the property, rather than the “highest and best use” value, which had previously been the rule. The contract restricts the land to agricultural and open space uses and compatible uses defined in state law and local ordinances. An agricultural preserve, which is established by local government, defines the boundary of an area within which a city or county will enter into contracts with landowners. Local governments calculate the property tax assessment based on the actual use of the land instead of the potential land value assuming full development.

California Environmental Quality Act Definition of Agricultural Lands

Public Resources Code (PRC) Section 21060.1 defines “agricultural land” as prime farmland, farmland of statewide importance or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California.

California Timberland Productivity Act of 1982

The California Timberland Productivity Act of 1982 (Government Code Sections 51100 et seq.) was enacted to help preserve forest resources. Similar to the Williamson Act, this program gives landowners tax incentives to keep their land in timber production. Contracts involving Timber Production Zones are on 10-year cycles.

Forest Practice Act of 1973

The California Department of Forestry and Fire Protection enforces the laws that regulate logging on privately owned lands in California. These laws are found in the Z’berg-Nejedly Forest Practice Act of 1973 (PRC Section 4511 et seq.), which was enacted to ensure logging is done in a manner that will protect natural resources. The removal of commercial timber species from

areas of pending new construction, and from the area around existing structures, is included in these regulations. In Tuolumne County, commercial timber species include Ponderosa Pine, Jeffrey Pine, Sugar Pine, Western White Pine, White Fir, Red Fir, Douglas Fir, Lodgepole Pine, and Incense Cedar.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is the State of California's agency responsible for fire protection in State Responsibility Areas of California totaling 31 million acres, as well as the administration of the state's private and public forests. In addition, the department provides varied emergency services in 36 of the state's 58 counties via contracts with local governments.

CAL FIRE enforces the laws that regulate logging on privately owned lands in California. These laws are found in the Forest Practice Act of 1973 (described above). Additional rules enacted by the California Board of Forestry and Fire Protection are also enforced to protect these resources.

CAL FIRE is responsible for ensuring that private landowners abide by these laws when harvesting trees. Although there are specific exemptions in some cases, compliance with the Forest Practice Act and California Board of Forestry and Fire Protection rules applies to all commercial harvesting operations for landowners of small parcels, to ranchers owning hundreds of acres, and to large timber companies with thousands of acres.

A Timber Harvesting Plan is the environmental review document submitted by landowners to CAL FIRE that identifies the extent of timber to be harvested, how it will be harvested, and the steps that will be taken to prevent damage to the environment. Timber Harvesting Plans are prepared by Registered Professional Foresters who are licensed to prepare these comprehensive, detailed plans.

Local

Tuolumne County Agricultural Rating System Matrix

Tuolumne County utilizes an Agricultural Rating System Matrix to determine the relative value of agricultural land. The Agricultural Rating System Matrix was adopted to evaluate the value of agricultural land based on the parcel size, productivity, availability of water, physical characteristics, adjacent land uses, adjacent roads, and proximity to utilities. Applications for land development projects on or adjacent to lands designated Agricultural in the County's land use diagram require use of the Rating System Matrix for the purpose of applying the policies and implementation programs contained in the Agricultural Resources Element of the Tuolumne County General Plan.

Currently, land development applications that are on or adjacent to parcels that have a General Plan land use designation of Agricultural are referred to the Agricultural Advisory Committee for review. Projects for parcels that have a land use designation other than Agricultural are referred to the Committee for review only if a change in the land use is proposed that could affect adjacent agricultural operations. The project planner for each application conducts the evaluation using the Agricultural Rating System Matrix. Once all the boxes in the matrix are circled with the

corresponding information regarding the parcel being evaluated, the circled number is multiplied by the Rating Weight number. This number is then entered into the Score column. All the numbers are added up to obtain a total at the bottom of the Score column. The maximum possible score is 240 points.

The total score indicates the relative value of the land as follows:

- High-value Agricultural Lands are those parcels that receive a score of 175 or higher as determined by the Agricultural Rating System Matrix.
- Agricultural Lands of Local Importance are those parcels which receive a score of at least 125 but not more than 174 as determined by the Agricultural Rating System Matrix.
- Agricultural Lands of Limited Importance are those parcels which receive a score of 124 or lower as determined by the Agricultural Rating System Matrix.

Tuolumne County General Plan

Agriculture and forestry resources are addressed in the Tuolumne County General Plan. Agriculture resources are addressed in the Agriculture Element, timberland is addressed in the Managed Resources Element, and forestry resources are addressed in the Natural Resources Element. Applicable policies from each of these elements are listed below.

Agriculture Element

Policy 8.B.5: Encourage development of non-agricultural lands before development of land designated Agricultural by the General Plan land use diagrams.

Policy 8.C.2: Establish a buffer between agricultural land uses and residential/non-agricultural land uses. It shall be the obligation of the party seeking the land use change to ensure that a sufficient buffer is established between the parcels. The buffer shall favor protection of the agricultural land.

Managed Resources Element

Policy 7.A.1: Encourage the conservation and management of timberlands through incentive programs while conforming with California forest practice law.

Policy 7.A.2: Minimize the potential for conflicts between timberland and non-timber related uses.

Natural Resources Element

Policy 16.A.1: Recognize that agricultural and timberlands have historically defined the rural character and scenic beauty of Tuolumne County.

Policy 16.A.6: Encourage the protection of clusters of native trees and vegetation and outstanding individual native and non-native trees which help define the character of Tuolumne County.

Policy 16.C.5: Encourage the conservation of oak woodlands and the preservation of heritage trees.

3.2.4 Impacts and Mitigation Measures

Significance Criteria

Implementation of the proposed project could have a significant impact on the environment if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use
- Conflict with existing zoning for agricultural use, or a Williamson Act contract
- 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))
- Result in the loss of forest land or conversion of forest land to non-forest use

Issues not Discussed in Impacts

As discussed above in Section 3.2.2, *Environmental Setting*, the project site and its surrounding parcels do not contain Prime Farmland, Unique Farmland, or Farmland of Statewide importance pursuant the FMMP, and neither the project site nor its surrounding parcels are under a Williamson Act contract or zoned for agricultural use. Consequently, the proposed project would not convert farmland to a non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract.

Also as discussed above in Section 3.2.2, *Environmental Setting*, the project site is zoned as Commercial Recreation (C-K) and Open Space-1 (O-1) under the Tuolumne County Ordinance Code and designated as Parks and Recreation (R/P) in the Tuolumne County General Plan. The project site is not zoned as forest land, timberland, or for timberland production. The project site is not within a Timberland Production Zone (TPZ) as defined by Tuolumne County or the California Timberland Productivity Act of 1982 (Tuolumne County, 2018). Therefore, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

For the reasons described above, the first three significance criteria listed above are not addressed further in this EIR.

Impact Assessment Methodology

The analysis of potential impacts to forestry resources is based on the proposed construction and operation of the project, the draft Timber Harvesting Plan prepared by the project applicant, reconnaissance surveys of the project site, and information from the California Department of Forestry and Fire Protection, the Tuolumne County General Plan, and the Tuolumne County Ordinance Code.

Impact Analysis

Impact 3.2-1: Implementation of the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. (*Less than Significant*)

As discussed above in Section 3.2.2, *Environmental Setting*, the approximately 80-acre project site consists of undeveloped land that was previously used for forestry and logging. Most of the project site and surrounding vicinity was burned during the 2013 Rim Fire. Since that time, much of the lands adjacent to the project site have undergone roadside hazard tree removal, timber salvage, fuels management, and reforestation activities to remove excess dead and downed wood that resulted from the fire, and to restore fire-impacted landscapes where appropriate. Similar activities have taken place on the project site. A salvage of fire-killed trees was conducted on the project site in 2014. In areas where tree cover was lost, the landowner replanted trees or facilitated successful natural reestablishment of young trees. However, in spite of these efforts, drought and decline of fire-damaged trees since the initial salvage has led to additional mortality of overstory trees. As a result, significant quantities of downed wood and standing snags remain on the site.

The proposed project includes development and operation of a 99-tent campground with supporting facilities on a portion of the project site, as depicted in Figure 2-3 in Chapter 2, Project Description. The project would include fuels reduction in the form of dead tree and vegetation removal as prescribed in the project's Wildfire Mitigation Plan described in Chapter 2, *Project Description*. The project development and fuel treatment footprint covers approximately 55 acres, of which an estimated 45 acres has an overstory canopy of trees. Current overstory stands are made up of a wide variety of tree species including ponderosa pine, sugar pine, Douglas fir, incense cedar and black oak. Overall there are an estimated 1,352 live trees within the 55-acre development and fuel treatment footprint, with a total basal area of 4,165 square feet.¹

The proposed project would result in the conversion of approximately 80 acres of timberland as defined in PRC Article 1, Section 4526 of Division 4, Chapter 8, Section 4526 to a recreational land use. Consistent with PRC 4582, timber operations require preparation of a Timber Harvesting Plan and approval of the plan by CAL FIRE. A Timber Harvesting Plan is the environmental review document submitted by landowners to CAL FIRE that identifies the extent of timber to be harvested, how it will be harvested, and the steps that will be taken to prevent damage to the environment.

In addition to the requirements necessitating preparation of a Timber Harvesting Plan, PRC Article 9 also requires that the timberland owner submit an application to CAL FIRE for approval subject to the provisions of Article 9 Sections 4621, 4622, 4623, and 4625. No timber operations are to be conducted until the Timber Harvesting Plan associated with the timberland conversion is approved. In addition, the Timber Harvesting Plan cannot be approved by CAL FIRE until the associated Timberland Conversion Permit is approved and issued to the timberland owner, which in the case of the proposed project is the project applicant.

¹ Basal area is the common term used to describe the average amount of an area occupied by tree stems. It is defined as the total cross-sectional area of all stems in a stand measured at breast height, and expressed as per unit of land area (typically square feet per acre).

CAL FIRE is a Responsible Agency for the proposed project pursuant to CEQA as defined in PRC Section 21609 and as set forth in Section 15231 of the CEQA Guidelines. CAL FIRE would use the environmental documentation contained in this EIR to make its own determination concerning the environmental effects of implementing the Timber Harvesting Plan and would be responsible for determination that the Timberland Conversion Permit meets the requirements of the Forest Practice Act and associated regulations.

Conversions of timberland that result in complete removal of forest cover have the potential to have an adverse impact on forest productivity and can impact both the capability of the forest to produce the environmental benefits normally associated with forests and the availability of forest lands for production of wood products. While the proposed project would result in a conversion of the project site from a focus on timber management to a focus on recreational use, the project has been designed to maintain the existing forest cover largely intact. With implementation of the proposed project, the project site would be capable of maintaining current levels of productivity. In addition, the project site would be available for future harvests consistent with the recreational use. Removal of live trees for the proposed project would be limited to removal of 45 trees from within the road right-of-way and those trees which the arborist determined to pose a safety hazard. This represents less than 3 percent of the total number of live trees on the developed portion of the project site that would be removed for the proposed project. Approximately 1,307 live trees within the developed portion of the site would remain, as would substantial quantities of live trees on the undeveloped portions of the site. In addition, after the initial fuel treatment in the understory, understory vegetation is anticipated to recover, and areas of existing plantations and naturally regenerated areas would be avoided. In both the short term and long term, the overall productivity of the forest on the project site would be anticipated to improve as forest stands recover from the Rim Fire. Consequently, the project is not anticipated to result in a loss of capability of the project site to produce wood products. Moreover, timber harvesting on private lands dedicated to recreational use is a common practice and is often necessary to address guest safety and maintain forest health. Finally, conversion of timberland on the project site would be the subject to approval of the Timber Harvesting Plan and issuance of a Timberland Conversion Permit by CAL FIRE to ensure avoidance and minimization of impacts to the environment. Consequently, the limited extent of live tree removal that would take place with implementation of the proposed project and the project's required compliance with existing regulations, including approval of a Timberland Conversion Permit, which would be designed to avoid or minimize impacts to the environment, would ensure that impacts related to loss of forest land or conversion of forest land to non-forest use would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

The impact of the proposed project on forestry resources must be analyzed in conjunction with past, present, and future development and timber harvesting projects which, combined with the proposed project, could result in cumulative impacts.

Projects considered in the cumulative analyses include the following:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.
- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.
- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

However, the cumulative analysis also considers past, present, and future development projects throughout Tuolumne County that involve the loss of forest land or conversion of forest land to non-forest use. Conversions of timberland in Tuolumne County that result in complete removal of forest cover have the potential to have an adverse impact on forest productivity and can impact both the capability of the forest to produce the environmental benefits normally associated forests and the availability of the forest lands for production of wood products. Consequently, the cumulative context for impacts related to the loss of forest land or conversion of forest land to non-forest use is Tuolumne County as a whole.

Impact 3.2-2: Implementation of the proposed project, in conjunction with other development, would not result in the loss of forest land or conversion of forest land to non-forest use. (*Less than Significant*)

While the proposed project would result in a conversion of the project site from a focus on timber management to a focus on recreational use, as discussed above in Impact 3.2-1, the project has been designed to maintain the existing forest cover largely intact. With implementation of the proposed project, the project site would be capable of maintaining current levels of productivity, and the project site would be available for future harvests consistent with the recreational use. Removal of live trees for the proposed project would be limited to removal of 45 trees from within the road right-of-way and those trees which the arborist determined to pose a safety

hazard. This represents less than 3 percent of the total number of live trees on the developed portion of the project site that would be removed for the proposed project. Approximately 1,307 live trees within the developed portion of the site would remain, as would substantial quantities of live trees on the undeveloped portions of the site. In addition, after the initial fuel treatment in the understory, understory vegetation is anticipated to recover, and areas of existing plantations and naturally regenerated areas would be avoided. In both the short term and long term, the overall productivity of the forest on the project site would be anticipated to improve as forest stands recover from the Rim Fire. Consequently, the limited extent of tree removal that would take place with implementation of the proposed project and the project's required compliance with existing regulations, including approval of a Timberland Conversion Permit, designed to avoid or minimize impacts to the environment would ensure that the project's contribution to cumulative impacts related to the loss of forest land or conversion of forest land to non-forest use would be **less than significant**.

Mitigation Measure

None required.

3.2.5 References

- California Department of Conservation (CDC), 2015. California Farmland Conversion Report. Available: http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf. Accessed March 30, 2020.
- , 2017a. State of California Williamson Act Contract Land. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/2016%20Statewide%20Map/WA_2016_11X17.pdf. Accessed June 27, 2018.
- , 2017b. Stanislaus County Important Farmland. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/sta16_no.pdf. Accessed June 27, 2018.
- California Department of Forestry and Fire Protection (CAL FIRE), 2018. 2018 Priority Landscapes. Available: <https://calfire-forestry.maps.arcgis.com/apps/MapSeries/index.html?appid=f767d3f842fd47f4b35d8557f10387a7>. Accessed October 30, 2019.
- Tuolumne County, 2018. Draft Recirculated Environmental Impact Report for the Tuolumne County General Plan Update Project, State Clearinghouse No. 2015082027. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11308/Tuolumne-County-GPU-Recirculated-DEIR-full-report>. Accessed March 30, 2020.

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3.3 Air Quality

3.3.1 Introduction

This section discusses the existing air quality conditions in the project area, presents the regulatory framework for air quality management, and analyzes the potential for the project to affect existing air quality conditions, both regionally and locally, due to activities that emit criteria and non-criteria air pollutants. It also analyzes the types and quantities of emissions that would be generated on a temporary basis due to proposed construction activities as well as those generated over the long term due to proposed operation of project elements. The analysis determines whether those emissions are significant in relation to applicable air quality standards. The section also includes an analysis of cumulative air quality impacts. The potential for odor impacts is also addressed to determine if the project would result in new significant impacts or substantially increase the severity of impacts on air quality with respect to odors.

The analysis in this section is based on a review of existing air quality conditions in the region and air quality regulations administered by the United States Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the Tuolumne County Air Pollution Control District (TCAPCD).

3.3.2 Environmental Setting

Physical Setting

Climate and Meteorology

Air pollution is directly related to a region's topographic features, and CARB has divided California into regional air basins according to topographic air drainage features. The project site is located within the Mountain Counties Air Basin (MCAB). The MCAB includes Plumas, Sierra, Nevada, Placer (middle portion), El Dorado (western portion), Amador, Calaveras, Tuolumne, and Mariposa Counties. The basin lies along the northern Sierra Nevada Mountain Range, close to or contiguous with the Nevada border, and covers an area of roughly 11,000 square miles. Elevations range from over 10,000 feet at the Sierra crest down to several hundred feet above sea level at the Stanislaus County boundary.

Throughout the MCAB basin, the topography is highly variable, and includes rugged mountain peaks and valleys with extreme slopes and differences in elevation in the Sierras, as well as rolling foothills to the west. The general climate of the MCAB varies considerably with elevation and proximity to the Sierra ridge. The terrain features of the basin make it possible for various climates to exist in a relatively close proximity. The Sierra Nevada receives large amounts of precipitation in the winter, with lighter amounts in the summer. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the basin.

Winter temperatures in the mountains can be below freezing for weeks at a time, and substantial depths of snow can accumulate, but in the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow. In the summer, temperatures in the mountains are mild, with daytime peaks in the 70s to low 80s, but the western

end of the basin can routinely exceed 100 degrees. The mean annual precipitation is 33 to 49 inches (838 to 1,245 millimeters). Mean annual temperature is 41 to 53 degrees Fahrenheit.

Attainment Status and Existing Air Quality

Under amendments to the federal Clean Air Act (CAA), the USEPA has classified air basins or portions thereof as either “attainment” or “non-attainment” for each criteria air pollutant, based on whether or not the national standards have been achieved. The California CAA, which is patterned after the federal CAA, also requires areas to be designated as “attainment” or “non-attainment” for the state standards. Thus, areas in California have two sets of attainment/non-attainment designations: one set with respect to the national standards and one set with respect to the state standards. The MCAB is currently designated as a nonattainment area for the state ozone standard and unclassified for state particulate matter (PM₁₀ and PM_{2.5}) standards based on a lack of available monitoring data.

The Amador and Tuolumne air districts, and the western portion of the Mariposa air district are designated as unclassified for the state PM₁₀ standards, since no PM₁₀ data is available for these areas. While there are no PM₁₀ or PM_{2.5} data available for the TCAPCD, there is a monitoring station in Sonora, approximately 23 miles northwest of the project site that monitors ozone. The Turtleback Dome monitoring station near Yosemite Valley in Mariposa County approximately 16 miles east of the project site also monitors ozone. **Table 3.3-1** presents the air pollutant data monitored at these two nearest stations. As can be seen from the table, the one-hour and eight-hour ozone standards have been exceeded at these stations in the past four years for which data are available, largely during July and August, prior to wildfire occurrences in California, indicating that wildfires were likely not responsible for these elevated values.

The nearest PM_{2.5} monitoring station to the project site is the San Andreas-Gold Strike Road station located approximately 47 miles northwest of the project site. The Table Mountain station is 60 miles southeast of the project site but is located in an area with similar geological features as the project site and is slightly more rural than at the San Andreas-Gold Strike Road station. The only other stations with three or more years of recent PM_{2.5} monitoring data are located in or near Merced. These stations are at a great distance from the project site and are not representative of the project site because of the city’s population and nearby major highways. These PM_{2.5} concentrations are also shown in Table 3.3-1.

Criteria Air Pollutants

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). ROG and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

**TABLE 3.3-1
AIR QUALITY MONITORING DATA SUMMARY (2015-2018)**

Pollutant	Monitoring Data by Year			
	2015	2016	2017	2018
Ozone (Sonora Station)				
Highest 1 Hour Average (ppm) ^b	0.078	0.091	0.083	0.087
Days over State Standard (0.09 ppm) ^a	1	3	0	4
Ozone (Turtleback Dome Station)				
Highest 1 Hour Average (ppm) ^b	0.102	0.082	0.113	0.111
Days over State Standard (0.09 ppm) ^a	1	0	3	11
Highest 8 Hour Average (ppm) ^b	0.083^c	0.078	0.088	0.092
Days over National/State Standard (0.070 ppm) ^a	1	11	11	25
PM_{2.5} (San Andreas-Gold Strike Road Station)				
Annual Average (ug/m ³) ^b	8.70	8.04	13.38	14.67
Days over National/State Standard (12.0 ug/m ³) ^a	--	--	--	--
98 th percentile 24 Hour Average (ug/m ³)	22.7	19.5	30.8	40.6
Days over National Standard (35.0 ug/m ³) ^a	4	0	4	16
PM_{2.5} (Table Mountain Station)^d				
Annual Average (ug/m ³) ^b	--	7.93	9.59	11.53
Days over National/State Standard (12.0 ug/m ³) ^a	--	--	--	--
98 th percentile 24 Hour Average (ug/m ³)	--	20.9	32.8	41.1
Days over National Standard (35.0 ug/m ³) ^a	--	0	7	17

NOTES:

- ^a Generally, state standards and national standards are not to be exceeded more than once per year.
- ^b ppm = parts per million; ug/m³ = micrograms per cubic meter.
- ^c In 2015, the USEPA strengthened the 8-hour ozone standard from 0.075 ppm to 0.070 ppm, and the new standard became effective December 28, 2015. Consequently, the highest 8-hour average of 0.075 ppm did not exceed the standard applicable in 2013.
- ^d Reporting year 2015 is unavailable for the Table Mountain Station.

Values in **Bold** exceed the respective air quality standard, while attainment designation of state and federal standards are determined regionally for each air basin.

SOURCE: CARB, 2019.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

Nitrogen Dioxide (NO₂)

NO₂ is an air quality pollutant of concern because it acts as a respiratory irritant. NO₂ is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_x.

A precursor to ozone formation, NO_x is produced by fuel combustion in motor vehicles, industrial

stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, NO_x emitted from fuel combustion is in the form of nitric oxide (NO) and NO₂. NO is often converted to NO₂ when it reacts with ozone or undergoes photochemical reactions in the atmosphere.

Carbon Monoxide (CO)

CO is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Particulate Matter

Particulates less than 10 microns in diameter (PM₁₀) and less than 2.5 microns in diameter (PM_{2.5}) can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

Other Criteria Pollutants

Sulfur dioxide (SO₂) is a combustion product of sulfur or sulfur-containing fuels such as coal. SO₂ is also a precursor to the formation of atmospheric sulfate and particulate matter (both PM₁₀ and PM_{2.5}) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Lead has a range of adverse neurotoxic health effects, and was formerly released into the atmosphere primarily via the combustion of leaded gasoline. The use of leaded gasoline ceased in the US after 1995, resulting in decreasing levels of atmospheric lead.

Toxic Air Contaminants (TACs)

TACs comprise a wide variety of compounds determined to pose an actual or potential risk to public health, either by increasing cancer risks or increasing other health risks such as respiratory diseases like asthma. The ambient background of TACs is the combined result of many diverse human activities, including gasoline stations, automobiles, dry cleaners, industrial operations, hospital sterilizers, and painting operations. In general, mobile sources contribute more significantly to health risks than do stationary sources.

Growing evidence indicates that exposure to emissions from diesel-fueled engines, about 95 percent of which come from diesel-fueled mobile sources, may result in cancer risks that exceed those attributed to other measured TACs. In 1998, the Office of Environmental Health

Hazard Assessment (OEHHA) issued a health risk assessment that included estimates of the cancer potency of diesel particulate matter (DPM) (OEHHA, 2009). Because DPM cannot be directly monitored in the ambient air, however, estimates of cancer risk resulting from DPM exposure must be based on concentration estimates made using indirect methods (e.g., derivation from ambient measurements of a surrogate compound).

Asbestos is also a TAC of concern, particularly in association with demolition of older buildings and structures. Asbestos is a fibrous mineral, which is both naturally occurring in ultramafic rock (a rock type commonly found in California) and used as a processed component of building materials. Because asbestos has been proven to cause serious adverse health effects, including asbestosis and lung cancer, it is strictly regulated based on its natural widespread occurrence and its former use as a building material. Geological mapping does not indicate the presence of naturally occurring asbestos at the project site (CDMG, 2000).

Sensitive Receptors

Some receptors are considered more sensitive than others to air pollutants. Reasons for greater sensitivity include pre-existing health problems, proximity to an emissions source, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are also sensitive to poor air quality because people usually stay home for extended periods of time. The nearest sensitive receptor to the project is a residence located approximately 1,400 feet southeast and downhill of the nearest proposed project facilities. Another residence is located about the same distance from the northwest corner of the site, across SR-120.

3.3.3 Regulatory Framework

Development within the project site boundaries must comply with federal, state, regional, and local regulations. This section discusses the requirements applicable to the project.

Federal

Criteria Pollutants

The USEPA is required by the federal CAA to identify and establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The USEPA has set NAAQS for six principal pollutants, called criteria air pollutants. These criteria air pollutants include ozone, NO₂, SO₂, CO, particulate matter, and lead. The original indicator for particulate matter was total suspended particulates (TSP); currently the standards are in terms of PM₁₀ and PM_{2.5}.

The USEPA must designate areas as meeting (attainment) or not meeting (nonattainment) the standard. In attainment areas, the states are required to develop a general plan to attain and maintain the NAAQS, or develop a specific plan to attain the standards in nonattainment areas. As discussed above, the MCAB is currently designated as a nonattainment area for the state ozone standard and unclassified for state particulate matter (PM₁₀ and PM_{2.5}) standards based on a lack of available monitoring data.

The EPA has established Standards of Performance for New Residential Wood Heaters authorized by section 111(b) and section 114 of the federal CAA. The rule achieves several objectives for new residential wood heaters, including applying updated emission limits that reflect the current best systems of emission reduction; eliminating exemptions over a broad suite of residential wood combustion devices; strengthening test methods as appropriate; and streamlining the certification process. It should be noted that regulations promulgated as part of these requirements (40 CFR 60 Subpart AAA, et seq.) are principally directed towards *residential* wood heaters, as defined in 40 CFR 60.531, with *camp stoves*, as also defined in 40 CFR 60.531, exempted from applicable emissions limits.

State

Criteria Pollutants

States are required to meet the NAAQS or adopt more stringent ambient air quality standards within the state. The California CAA establishes California Ambient Air Quality Standards (CAAQS) which are more stringent than the NAAQS for certain pollutants and averaging periods. In addition to the six criteria air pollutants identified by the USEPA, California has also established state ambient air quality standards for visibility reducing particulates, sulfates, hydrogen sulfide, and vinyl chloride. The current CAAQS and NAAQS are presented in **Table 3.3-2**.

Senate Bill 563

Senate Bill 563, enacted in 2017, established the Woodsmoke Reduction Program to be administered by the California Air Resources Board (CARB) to promote the voluntary replacement of old residential wood-burning stoves with cleaner and more efficient alternatives. The program is designed to help replace an uncertified wood stove or wood insert, or a fireplace used as a primary source of heat with a cleaner burning and more efficient device. The replacement devices emit less greenhouse gases (GHG) and other air pollutants.

Regional

The TCAPCD is the regional air quality authority in the project area. The TCAPCD has established thresholds of significance for assessing potential air quality impacts under CEQA (TCAPCD, 2013). Specifically, a project would have a significant impact on air quality if, pursuant to TCAPCD regulations, it would result in emissions in excess of:

- 100 tons per year or 1,000 pounds per day of reactive organic gases (ROG);
- 100 tons per year or 1,000 pounds per day of oxides of nitrogen (NOx);
- 100 tons per year or 1,000 pounds per day of particulate matter (PM10); or
- 100 tons per year or 1,000 pounds per day of carbon monoxide (CO).
- The Tuolumne County Air Pollution Control District offers vouchers to replace non-EPA certified wood stoves, fireplace inserts, or open-hearth fireplaces used as a primary source of heat with new, cleaner burning devices. The new device may be an EPA certified woodstove or insert, a natural gas or propane heating device, or an electric heating device.

**TABLE 3.3-2
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	State Standard	Federal Primary Standard
Ozone	8 Hour	0.070 ppm	0.070 ppm
	1 Hour	0.09 ppm	---
Carbon Monoxide	8 Hour	9.0 ppm	9 ppm
	1 Hour	20 ppm	35 ppm
Nitrogen Dioxide	Annual Average	0.030 ppm	0.053 ppm
	1 Hour	0.18 ppm	0.100 ppm
Sulfur Dioxide	Annual Average	---	0.030 ppm
	24 Hour	0.04 ppm	0.14 ppm
	1 Hour	0.25 ppm	0.075 ppm
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	---
	24 Hour	50 µg/m ³	150 µg/m ³
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	12.0 µg/m ³
	24 Hour	---	35 µg/m ³
Sulfates	24 Hour	25 µg/m ³	---
Lead	Calendar Quarter	---	1.5 µg/m ³
	30-Day Average	1.5 µg/m ³	---
	3-Month Rolling Average	---	0.15 µg/m ³
Hydrogen Sulfide	1 Hour	0.03 ppm	No Federal Standard
Vinyl Chloride	24 Hour	0.010 ppm	---
Visibility Reducing Particles	8 Hour	Extinction of 0.23/km; visibility of 10 miles or more	No Federal Standard

NOTES:

ppm = parts per million

µg/m³ = micrograms per cubic meter

SOURCE: BAAQMD, 2019

Local

Tuolumne General Plan Air Quality Element

Air quality is addressed in the Tuolumne County General Plan in the Air Quality Element. Policies and Implementation Programs from the element applicable to the project are listed below:

Policy 15.A.1: Accurately determine and fairly mitigate the local and regional air quality impacts of land development projects proposed in the County.

Policy 15.A.2: Integrate land use planning, transportation planning, and air quality planning to make the most efficient use of public resources and to create a more livable environment.

Implementation Program 15.A.b: Require an air quality impact evaluation for development projects, as necessary, pursuant to the requirements of the Tuolumne County Air Pollution Control District. The air quality impact evaluation shall be the responsibility of the developer or proponent and prepared by a qualified consultant at their expense.

Implementation Program 15.A.c: Require project applicants to identify alternatives or amendments for proposed projects that would reduce emissions of air pollutants, if air pollutant emissions exceed applicable air quality standards. Require all air quality mitigation to be real, feasible, cost effective, and enforceable.

Implementation Program 15.A.d: Require project applicants to implement innovative mitigation measures that include best available control technology and/or best management practices as needed to reduce air quality impacts.

Implementation Program 15.A.e: Require proposed new development projects to analyze their contribution to increased traffic and to implement, as needed, transportation demand management measures or other improvements to reduce vehicle miles traveled, which, in turn, reduces air pollutant and GHG emission.

Policy 15.A.4: Reduce air emissions from project construction.

Implementation Program 15.A.k: Require the following dust-control measures during all project-related site preparation activities (i.e., grading, excavation and associated materials hauling) to reduce air quality impacts:

- Exposed soils shall be watered as needed to control wind borne dust.
- Exposed piles of dirt, sand, gravel, or other construction debris shall be enclosed, covered and/or watered as needed to control wind borne dust.
- Vehicle track-out shall be minimized through the use of rumble strips and wheel washers for all trucks and equipment leaving the site.
- Sweep streets once a day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water).
- On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.
- Loads on all haul/dump trucks shall be covered securely or at least two feet of freeboard shall be maintained on trucks hauling loads.
- Construction equipment shall be maintained and tuned at the interval recommended by the manufacturers to minimize exhaust emissions.
- Equipment idling shall be kept to a minimum when equipment is not in use.
- Construction equipment shall be in compliance with the California Air Resources Board off-road and portable equipment diesel particulate matter regulations.

Policy 15.C.1: Require development to reduce criteria and toxic air pollutant emissions from the use of wood burning appliances, through low emission technology, and maximize the use of energy conservation and clean or renewable energy sources.

Implementation Program 15.C.a: Continue to require the installation of only low-emitting, EPA-certified fireplaces, woodstoves or pellet stoves where such wood-burning devices are desired by the developers and/or future homeowners, except in areas with poor air quality or dispersion, or where otherwise prohibited.

With respect to Policy 15.C.1 and Implementation Program 15.C.a, the TCAPCD has determined that the policy is specific to residential development, and is not applicable to transient lodging (TCAPD, 2020).

3.3.4 Impacts and Mitigation Measures

Significance Criteria

Consistent with Appendix G of the State CEQA Guidelines, the project would have a significant impact on air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan?
- 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?
- Expose sensitive receptors to substantial pollutant concentrations?
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact Assessment Methodology

Consistency with an Applicable Air Quality Plan

Potential conflicts or obstruction of the implementation of an air quality plan would occur if a project would result in emissions or sources that would not be controlled or minimized to reduce criteria pollutant emissions in areas designated as non-attainment. Tuolumne County does not currently have a Clean Air Plan that addresses efforts to reduce non-attainment pollutants (ozone precursors) within the County. However, the County General Plan does contain an Air Quality Element that was updated in March of 2018. General Plan Policies and Implementation Measures with respect to land development projects are qualitatively assessed with respect to potential emission sources of ozone precursors associated with the project.

Criteria Pollutants

Construction-related and operational emissions are estimated using the CalEEMod (version 2016.3.2). The model inputs include project-specific net new vehicle trips, which are discussed further in Section 3.8, *Transportation*.

Health Risk Impacts

Health risk impacts from TACs and PM_{2.5} exposures are assessed based on the proximity of sensitive receptors to emission sources, and buffer distances generally recognized as a zone of influence from a source beyond which impacts from exposure (in most common instances) are assumed to be less than significant.

Impact Analysis

Impact 3.3-1: Implementation of the project would not conflict with or obstruct implementation of the applicable air quality plan. (*Less than Significant*)

Although designated as a non-attainment area for state ozone standard, Tuolumne County does not currently have a Clean Air Plan that addresses efforts to reduce ozone precursors within the County. However, since there are no existing substantial sources of air pollutants in the project area, the project site would not be considered to be within a poor air quality area.

Additionally, as discussed below in Impact 3.3-2, the project would generate emissions that the TCAPCD would consider to be a less-than-significant air quality impact. Consequently, the project would not conflict or obstruct implementation of an applicable air quality plan. This impact would be **less than significant**.

Mitigation Measure

None required.

Impact 3.3-2: Implementation of the project would not 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. (*Less than Significant*)

To evaluate this potential impact, project related emissions were estimated and compared to the thresholds of significance established by TCAPCD. The thresholds of significance applied to project emissions were developed by TCAPCD and are based on the trigger levels for the requirements of a general federal conformity analysis with respect to non-attainment criteria air pollutant, including ozone precursors ROG and NOx.

Project construction-related and operational emissions were conservatively estimated using the CalEEMod model version 2016.3.2. As the model does not have land use estimates specific to recreational campgrounds, a motel land use was conservatively assumed as a proxy for the proposed campground. This is a conservative assumption because it assumes operational emissions from mobile sources (vehicle trips) and natural gas combustion 12 months per year, while the proposed campground would only operate March through October. Additionally, natural gas combustion associated with a campground would likely be substantially less than that associated with a motel land use.

Estimated construction-related emissions are presented in **Table 3.3-3** below. These emissions assume use of off-road equipment for excavation and grading for the proposed campground and septic system as well as building construction, which is also likely conservative as a majority of the proposed structures would be temporary or constructed off-site and transported and installed prefabricated. These emissions also consider vehicle trips by construction workers and vendor truck trips bringing materials to the project site over the course of ten months. Again, these assumptions are all conservative, considering the low-impact nature of the project and the limited

permanent facilities on the site. As can be seen from Table 3.3-3, construction-related emissions of the project would be well below the significance thresholds established by TCAPCD.

**TABLE 3.3-3
 MAXIMUM ANNUAL CRITERIA POLLUTANT EMISSIONS (TONS/YEAR)**

Emissions Category	ROG	NOx	PM₁₀	CO
Construction Emissions				
Maximum Annual Construction Emissions	2.02	3.24	0.32	2.98
TCAPCD Thresholds	100	100	100	100
Exceed Thresholds?	No	No	No	No
Operational Emissions				
Annual Operational Emissions	0.86	0.45	0.19	1.59
Woodstove and Fire Ring Emissions	1.50	0.16	1.58	8.93
Generator Emissions	0.17	0.016	0.001	0.001
Maximum Annual Operational Emissions	2.53	0.63	1.77	10.52
TCAPCD Thresholds	100	100	100	100
Exceed Thresholds?	No	No	No	No

SOURCE: ESA, 2019 (Appendix E)

Grading for the proposed improvements could create fugitive dust. Therefore, the project would be conditioned to mitigate dust during construction through the use of a watering truck or other dust suppressant device, as required by Section 12.20.370 of the Tuolumne County Code.

Table 3.3-3 also presents the operational emissions associated with vehicle trips and natural gas combustion, including a backup, propane-fueled generator. As shown in the table, all project-related criteria pollutant emissions would be well below TCAPCD thresholds. In addition, a separate CalEEMod model run was performed to estimate emissions associated with the wood-burning heating stoves proposed for use in the guest tents. The modelling conservatively assumed that all 99 tents would operate a woodstove simultaneously at the default model usage rate of 82 days per year, a scenario which is unlikely to occur, given the project’s operating season and likely occupancy rates.

A 70 kW propane-powered emergency generator would be located near Well #1 on the project site, and would provide backup power during unplanned power outages and potential Pacific Gas & Electric (PG&E) Planned Safety Power Shutoff (PSPS) events. During the fall of 2019, PG&E implemented a preventative program to avoid equipment-caused fires during high fire meteorological conditions. Based on PG&E reports for October 2019, Yosemite National Park experienced two PSPS events, one of which lasted 48 hours and the other 72 hours (PG&E, 2019a; 2019b). For a conservative analysis, it was assumed that the emergency generator would be run 30 minutes per week for planned maintenance purposes, as well as four times per year during potential PSPS events at 96 hours per event. Based on these assumptions, emissions were

calculated for the generator using CalEEMod factors for compressed natural gas, and are summarized in Table 3.3-3.

As can be seen from Table 3.3-3, operational emissions of the project would be well below the regional air quality significance thresholds established by TCAPCD. Localized concentrations of wood smoke particulate matter from operation of wood burning is addressed in Impact 3.3-3, below. Consequently, both construction-related emissions and operational emissions associated with the project with respect to the potential to result in a cumulatively considerable net increase in non-attainment criteria pollutants would be **less than significant**. In addition, the presence of the YARTS bus stops near the entrance to the project site would provide guests with the option to use the regional public transit system to access Yosemite National Park and other regional destinations. This has the potential to further reduce operational emissions through trip reductions.

Mitigation Measure

None required.

Impact 3.3-3: Implementation of the project would not expose sensitive receptors to substantial pollutant concentrations. (*Less than Significant*)

The project would generate TACs in the form of diesel particulate matter during construction activities and, once operational, (wood smoke) particulate matter from proposed wood burning associated with up to 99 woodstoves and three group fire rings.

Some California Air Districts such as the Bay Area Air Quality Management District (BAAQMD) have developed methodologies for analyzing health risk impacts and in doing so have established a 1,000-foot zone of influence from an emission source, beyond which impacts from TAC exposure in most common instances are assumed to be less than significant. Given the absence of a TAC threshold for Tuolumne County, this analysis uses the BAAQMD methodology for assessing TAC impacts. The nearest sensitive receptors are located approximately 1,400 feet from those areas of the site that are proposed for development, and most construction would be concentrated an even further distance from those receptors. Because construction areas of the project would be further than 1,000 feet from the nearest existing sensitive receptor, construction related impacts from localized TAC emissions would be **less than significant**.

While operation of the project would not result in excessive emissions of TACs, the proposed emergency generator and wood-burning heating stoves in the guest tents would emit fine particulate matter (PM_{2.5}). The emergency generator would be located approximately 1,800 feet from the nearest off-site sensitive receptor. The guest tents, which would each have a wood stove, would be located throughout the project site, resulting in emissions sources located at distances ranging from about 1,600 feet to over 3,000 feet from the nearest off-site sensitive receptor.

An air dispersion screening model, U.S. EPA's AERSCREEN version 16216, was used to estimate "worst-case" 1-hour PM_{2.5} concentrations which were subsequently converted to 24-hour and annual average concentrations using EPA guidance. AERSCREEN produces conservative

concentration estimates by utilizing worst case meteorological and terrain data. To estimate PM_{2.5} concentrations generated from the wood-burning heating stoves and group campfire rings, the model was configured as a single point source representing a single wood stove stack (i.e., all 99 tent stoves and three group fire rings operating at a single, concentrated, location), which represents a “super” worst-case concentration scenario that would never actually be realized in real-world operating conditions. The AERSCREEN output selection was chosen to produce concentrations by distance up to 5,000 meters away. To determine the PM_{2.5} concentrations at the various sensitive receptor from the aggregated wood stove stack, each source was given a distance designation in 200 foot increments. For example, a stack located at 1,700 feet from the nearest sensitive receptor was estimated at 1,600 feet because it fell into the grouping of greater than or equal to 1,600 feet but not more than 1,800 feet from the sensitive receptor. To estimate the project’s contribution to PM_{2.5} concentrations at the nearest off-site sensitive receptor, modeling results for operation of the emergency generator, modeled as a single point source, were conservatively combined with modeling results for operation of the wood-burning stoves.

The NAAQS include standards for annual PM_{2.5} concentrations as well as 24-hour PM_{2.5} concentrations, while the CAAQS include only 24-hour PM_{2.5} standards. As shown in Table 3.2-2, above, the national and state standards for 24-hour PM_{2.5} are the same. The ambient air quality standards for PM_{2.5} are based on a three-year average for both the 24-hour and annual standard. Because there are no nearby air monitoring stations, the PM_{2.5} data for the Table Mountain Station in Table 3.3-1 was used as a conservative representation of the existing ambient air quality for the region of the project. **Table 3.3-4** presents the estimated existing, and existing plus project contribution to the ambient air quality and compares them to the applicable air quality standard for PM_{2.5}.

**TABLE 3.3-4
 MAXIMUM PM_{2.5} CONCENTRATIONS (UG/M³)**

Emissions Category	Annual	24-Hour ^a
Operational Emissions		
Existing Conditions, 3-year average	9.68	31.6
Project Contribution	0.44	3.29
Combined Estimated Impact	10.1	34.9
TCAPCD Thresholds	12.0	35.0
Exceed Thresholds?	No	No

NOTE:

^a 24-hour PM_{2.5} concentrations were modeled under worst-case scenario conditions, which assume 24-hour use of emergency generators in the event of a PG&E PPS event.

SOURCE: ESA, 2019 (Appendix E)

As shown in Table 3.3-4, the project’s contribution plus the existing condition for both annual and 24-hour PM_{2.5} concentrations at the nearest sensitive receptor would be below the state and federal standards, even under “super” worst-case scenario conditions, and thus localized impacts from operational PM_{2.5} concentrations would be less than significant. The modeling was

conducted using very conservative assumptions to provide a worst-case scenario; in actuality, such a scenario is extremely unlikely to occur, given the project's operating season and likely occupancy rates, together with the fact that the operating stoves would be spread throughout the site, and not concentrated at a single location. Even under this extremely worst-case scenario, the modeling determined that the project would have a **less-than-significant** impact with regard to exposure of sensitive receptors to substantial pollutant concentrations.

Mitigation Measure

None required.

Impact 3.3-4: Implementation of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less than Significant*)

Typical sources of odor emissions include wastewater treatment plants, oil refineries, asphalt plants, chemical manufacturing, painting/coating operations, coffee roasters, food processing facilities, recycling operations and metal smelters. There are no facilities of these types in the vicinity of the project site, and none are proposed as part of the project. Toilets would be flush toilets and would discharge into the proposed septic system and leach field, avoiding very localized odors associated with pit toilets. Consequently, potential odor impacts would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

Impact 3.3-5: Implementation of the project, in conjunction with other development, would not conflict with or obstruct implementation of the applicable air quality plan. (*Less than Significant*)

A project's consistency with an air quality plan is, by definition, a cumulative assessment of a project's contribution to the cumulative air quality conditions within an air basin or in this case within Tuolumne County. As previously discussed in Impact 3.3-1, this impact was determined to be less-than-significant. Therefore, the contribution of the project to the cumulative conditions within Tuolumne County would not be cumulatively considerable and the cumulative impact with respect to obstruction of or conflict with implementation of air quality plans is **less than significant**.

Mitigation Measure

None required.

Impact 3.3-6: Implementation of the project, in conjunction with other development, would not 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. (*Less than Significant*)

To evaluate this potential impact, and as discussed previously in Impact 3.3-2, project related emissions were estimated and compared to the thresholds of significance established by TCAPCD.

The thresholds of significance applied to project emissions were developed by TCAPCD and are based on the trigger levels for the requirements of a general federal conformity analysis with respect to non-attainment criteria air pollutant, including ozone precursors ROG and NOx. The USEPA developed the General Conformity requirements in the 1990 Amendments to the Clean Air Act. The General Conformity Rule ensures that the actions taken by federal agencies in nonattainment and maintenance areas do not interfere with a state's plans to meet national standards for air quality. Therefore, the 100 tons per year screening threshold for general conformity represents the emissions beyond which a project would be considered to contribute to a cumulatively considerable air quality impact by exacerbating existing concentrations of criteria air pollutants or their precursors in an area designated as non-attainment for these pollutants.

Because the project would be substantially below these screening values for ozone precursors, which is the only designated non-attainment pollutant in the County, the project would not contribute considerably to cumulative emissions during construction and operation and the cumulative air quality emissions impact with respect to criteria air pollutants would be **less than significant**.

Mitigation Measure

None required.

Impact 3.3-7: Implementation of the project, in conjunction with other development, would not expose sensitive receptors to substantial pollutant concentrations. (*Less than Significant*)

In general, TAC emissions and emissions of PM_{2.5} are localized health impacts which may affect sensitive receptors near the point of emissions. As discussed earlier in Impact 3.3-3, methodologies have been developed for analyzing health risk impacts, and in doing so have established a 1,000-foot zone of influence from a source beyond which impacts from TAC exposure in most common instances are assumed to be less than significant.

The past, present, and reasonably foreseeable future conditions of the Under Canvas project site and vicinity include the Terra Vi Lodge Yosemite project, the Berkeley Tuolumne Restoration project, and the Thousand Trails/Yosemite Lakes RV expansion project. Both the Berkeley Tuolumne Restoration project and the Thousand Trails/Yosemite Lakes RV expansion project would be sufficiently distant (beyond 1,000 feet) from the Under Canvas project to preclude a possible cumulative contribution to localized health effects from the project, as addressed previously in Impact 3.3-3.

The Terra Vi Lodge Yosemite project site is located north and across the highway from the Under Canvas project site and could be constructed concurrently. Like the Under Canvas project, the Terra Vi Lodge Yosemite project would generate TACs in the form of diesel particulate matter during construction activities. While isolated rural residential receptors approximately 250 feet north of the Terra Vi Lodge Yosemite project could be impacted by construction activity associated with Terra Vi, the Under Canvas project's contribution to this potential impact would be negligible, given its distance (approximately 1,400 feet) from those receptors. As such, the Under Canvas project would be too distant to contribute to this impact in any substantive manner, beyond that potentially resulting from construction of the Terra Vi project. Therefore, the project would not contribute considerably to cumulative health risk exposure during construction and the cumulative air quality emissions impact with respect to TACs and localized PM_{2.5} would be **less than significant**.

Mitigation Measure

None required.

Impact 3.3-8: Implementation of the project, in conjunction with other development, would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less than Significant*)

In general odors are localized impacts which may affect sensitive receptors near the point of emission. As discussed earlier in Impact 3.3-4, the project would not be a potential source of odor emissions. Toilets of the project would be flush toilets and would discharge into the proposed septic system and leach field, avoiding very localized odors that may be associated with pit toilets. Therefore, the project would not contribute to a cumulatively considerable impact with respect to other emissions (such as those leading to odors) adversely affecting a substantial number of people, and the impact would be **less than significant**.

Mitigation Measure

None required.

3.3.5 References

Bay Area Air Quality Management District, 2017. California Environmental Quality Act Air Quality Guidelines. May 2017. Available: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed November 6, 2019.

California Air Resources Board (CARB), i-ADAM air quality Data Statistics on-line tool, Available: <https://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed November 6, 2019.

California Department of Mines and Geology (CDMG), 2000. A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring

Asbestos, Open File Report 2000-19, Compiled By Ronald K. Churchill and Robert L. Hill, ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-019.pdf, August 2000. Accessed November 6, 2019.

Pacific Gas & Electric Company (PG&E), 2019a. *Amended PG&E Public Safety Power Shutoff (PSPS) Report to the CPUC, October 9-12, 2019 De-Energization Event*. November 8, 2019. Available: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/PGE%20Public%20Safety%20Power%20Shutoff%20Oct.%209-12%20Report_Amended.pdf. Accessed March 20, 2020.

———, 2019b. *PG&E Public Safety Power Shutoff (PSPS) Report to the CPUC, October 26 & 29, 2019 De-Energization Event*. November 18, 2019. Available: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/Nov.%2018%202019%20PGE%20ESRB-8%20Report%20for%20Oct.%2026%2029%202019.pdf. Accessed March 20, 2020.

State of California, Office of Environmental Health Hazard Assessment (OEHHA), 2009. *Technical Support Document for Cancer Potency Factors*. May 2009. Available: <https://oehha.ca.gov/air/crn/technical-support-document-cancer-potency-factors-2009>. Accessed November 6, 2019.

Tuolumne County Air Pollution Control District, 2013. *CEQA Thresholds of Significance*, July 11, 2013, Available: https://www.tuolumnecounty.ca.gov/DocumentCenter/View/1072/TCAPCD_Significance_Thresholds__2_?bidId=. Accessed November 6, 2019.

———, 2020. *Comments to Under Canvas/Harding Flat LLC (UC) Site Development Permit SDP18-002 (Regarding UC Wood Stove Requirements)*. February 7, 2020.

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3.4 Biological Resources

3.4.1 Introduction

This section identifies the existing biological resources at the project site; identifies the federal, state, and local regulations pertaining to biological resources within the region; and describes project impacts on those biological resources as well as mitigation measures to reduce project-related potentially significant impacts. The information and analysis presented in this section is focused on special-status species,¹ wildlife habitats, vegetation communities, and jurisdictional waters of the United States (U.S.) and of the state that occur or have the potential to occur on the project site. The results of the assessment presented in this section are based upon literature review and queries of the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDDB), the U.S. Fish and Wildlife Service (USFWS) list of federal endangered and threatened species, and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants, as well as surveys conducted at the project site. Biological resources within the project site were identified through field reconnaissance surveys conducted in June 2018, January 2019, and May 2019; special-status plant species surveys conducted in May and July 2019; and an aquatic resources delineation conducted in June 2018 and January 2019.

The sources of reference data reviewed for this evaluation included the following:

- Ascension Mountain U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle;
- Google Earth aerial photographs of the project site (Google Earth, 2020);
- USFWS list of federal endangered and threatened species that may occur in the proposed project location, and/or may be affected by the project (USFWS, 2020a) (see **Appendix F**);
- CNDDDB list of special-status species occurrences within the Ascension Mountain and eight surrounding USGS 7.5-minute topographic quadrangles (Cherry Lake South, Lake Eleanor, Ackerson Mountain, El Portal, Kinsley, Buckhorn Peak, Jawbone Ridge, and Duckwall Mountain) (CDFW, 2020a) (see Appendix F);
- CNPS Inventory of Rare and Endangered Plants (v8-03 0.39) known to occur within the Ascension Mountain and eight surrounding USGS 7.5-minute topographic quadrangles (CNPS, 2020) (see Appendix F);
- USFWS Critical Habitat for Threatened and Endangered Species (online mapping program) (USFWS, 2020b);
- National Wetlands Inventory (USFWS, 2020c);
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2020b);
- CDFW Special Animals List (CDFW, 2020c);

¹ Species that are protected pursuant to federal or state endangered species laws, or have been designated as Species of Special Concern by the CDFW, or species that are not included on any agency listing but meet the definition of rare, endangered or threatened species of the CEQA Guidelines section 15380(b), are collectively referred to as "special-status species".

- *Yosemite Under Canvas Project Aquatic Resources Delineation* (ESA, 2019); and
- *Tuolumne County Wildlife Handbook* (Tuolumne County, 1987).

During the biological surveys, ESA biologists walked meandering transects through the entire project site, spaced closely to obtain maximum visual coverage of the habitats present. Existing habitat types, plants, and wildlife species within and adjacent to the project site were recorded. Vegetation communities and wildlife habitats were identified and mapped using aerial photo interpretation and field reconnaissance. Prior to the field surveys, special-status species characteristics and habitat requirements were reviewed to aid in field recognition of suitable habitats. During the surveys, habitats were evaluated for their potential to support regionally occurring special-status species and the presence of any other biologically sensitive resources such as wetlands, riparian habitat, or drainages. A formal aquatic resource delineation was also conducted (ESA, 2019). Potentially jurisdictional wetlands and other waters of the U.S. were delineated according to methods outlined in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE, 2010).

Focused botanical surveys were conducted by botanist Joshua Boldt on May 9 and July 16, 2019. Conditions at the time of the surveys were typical for spring (May 2019) and summer (July 2019) in Tuolumne County. The surveys conducted in May and those conducted in July each encompassed the entirety of the study area, meaning the entire study area was surveyed once in the spring and once in summer. The timing of the surveys corresponded to the flowering season of all species with at least moderate potential to occur in the study area. All surveys were conducted on foot by walking systematic or meandering transects affording complete visual coverage of the study area. The survey was floristic in nature, meaning that every plant taxon that occurred in the floristic survey area at the time of the survey was identified to the taxonomic level necessary to determine rarity and listing status. Plant taxa not identified in the field were collected and identified in the laboratory at a later date. All plants were identified using *The Jepson Manual: Vascular Plants of California (Second Edition)* (Baldwin et al., 2012). The surveys followed the procedures described in the California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018). Plant nomenclature follows *The Jepson Manual: Vascular Plants of California (Second Edition)* (Baldwin et al., 2012) as revised by the Jepson eFlora (Jepson Flora Project, 2020). Common names of plant species are derived from the Jepson Manual or Calflora (2020).

3.4.2 Environmental Setting

Regional Setting

Regionally, the project site is located in the central portion of the Sierra Nevada, within the central High Sierra Nevada district of the California Floristic Province (Baldwin et al., 2012). Regional natural vegetation communities in the vicinity of the project site include montane hardwood-conifer forests, mixed conifer forests, ponderosa pine forests, oak woodlands, riparian woodlands, perennial grasslands, wetlands, and riverine habitat. Within the project site vegetation communities and

wildlife habitats include mixed conifer forest, seasonal wetland, seep, ephemeral drainages, and disturbed. Land use immediately surrounding the project site is characterized by open space, rural residences, and recreation facilities. Elevation in the project site ranges from 3,740 feet above mean sea level in the east to 4,050 feet above mean sea level in the west.

Project Site Setting

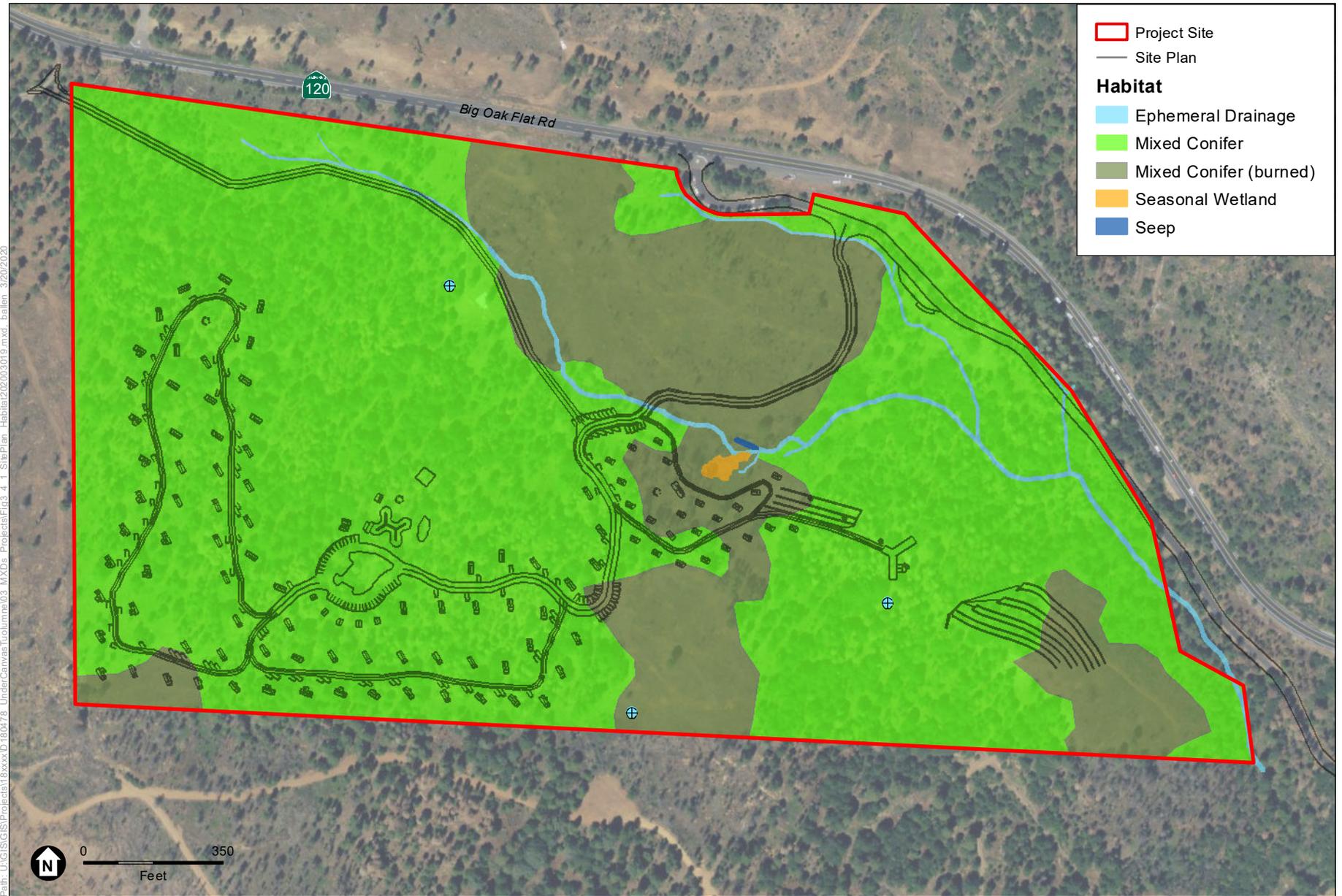
Wildlife Habitats and Vegetation Communities

Wildlife habitats are generally described in terms of vegetation types along with landform, disturbance regime, and other unique environmental characteristics. Vegetation communities are assemblages of plant species that occur together in the same area, are repeated across landscapes, and are defined by species composition and relative abundance. Wildlife habitats generally correspond to vegetation communities. The wildlife habitat types described in this document were classified using the CDFW’s *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988), a habitat classification scheme that was developed to support the CDFW’s California Wildlife Habitat Relationship (CWHR) System. The CWHR System is a wildlife information system and predictive model for California’s regularly-occurring wildlife species. The vegetation types described in this section were classified according to *A Manual of California Vegetation, 2nd Edition* (Sawyer et al., 2009). Within CDFW’s current vegetation classification system, vegetation alliances are the scientifically derived hierarchical class that corresponds best with plant communities and are designed to be the unit for conservation of rare or threatened plant communities. Vegetation alliances typically represent a much finer scale of vegetation description than wildlife habitats, but correspond approximately with one or several wildlife habitat types. CDFW provides crosswalks to help correlate vegetation alliances with wildlife habitats and the descriptions below make use of the crosswalk. A description of each wildlife habitat type is presented below. Related vegetation alliances are listed following the wildlife habitat description and are based on the alliance descriptions presented by Sawyer, et al. (2009). Vegetation alliances considered a Sensitive Natural Community by CDFW are marked below by an asterisk (*) and should therefore be considered a sensitive natural community under CEQA regulations. **Table 3.4-1** and **Figure 3.4-1** summarize the extent of wildlife habitats that occur within the project site.

**TABLE 3.4-1
 HABITAT TYPES WITHIN THE PROJECT SITE**

Habitat Type	Area (acres)
Mixed Conifer Forest	64.99
Mixed Conifer Forest (Burned)	19.42
Seasonal Wetland	0.09
Seep	0.01
Ephemeral Drainage	0.62
Total for the Project Site	85.13

SOURCE: ESA, 2019



SOURCE: USDA, 2016; ESA, 2018

Yosemite Under Canvas Project

Figure 3.4-1
Habitat Types

Of note, the 2013 Rim Fire, which burned approximately 257,000 acres in Tuolumne and Mariposa counties, burned of the project site and much of the surrounding area. Fire severity on the project area ranged from low to severe. On the project site, fire behavior in areas mapped as mixed conifer forest (see Figure 3.4-1 and Table 3.4-1) was generally moderate in that primary impacts were to understory and surface fuels with light to moderate impact to the overstory. For areas mapped as mixed conifer forest (burned) (see Figure 3.4-1 and Table 3.4-1), fire behavior was severe and resulted in loss of surface ladder and overstory trees. The landscape is still recuperating from the fire and much of the vegetation of the project site and surrounding area is still recovering.

Mixed Conifer Forest

The majority of the project site consists of mixed conifer forest. Dominant overstory vegetation includes ponderosa pine (*Pinus ponderosa*), sugar pine (*P. lambertiana*), incense cedar (*Calocedrus decurrens*), Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*), and black oak (*Quercus kelloggii*). Dominant shrubs include deer brush (*Ceanothus integerrimus*), mountain misery (*Chamaebatia foliolosa*), Sierran gooseberry (*Ribes roezlii*), and both whiteleaf manzanita (*Arctostaphylos viscida*) and green leaf manzanita (*Arctostaphylos manzanita*). Dominant understory species includes blue grass (*Poa bulbosa*), ripgut grass (*Bromus diandrus*), sanicula (*Sanicula crassicaulis*), tall sock-destroyer (*Torilis arvensis*), silver hair grass (*Aira caryophyllea*), winter vetch (*Vicia villosa*), and nemophila (*Nemophila heterophylla*).

The mixed conifer community is naturally adapted to low-intensity, frequent fires. Nearly 100 years of fire suppression has resulted in a change from open forest to dense thickets of shade-tolerant tree species, including incense cedar, white fir (*Abies concolor*), and Douglas-fir throughout much of the mixed conifer zone. Under natural conditions, the return interval for fire is estimated at 8–12 years. Present conditions, however, often generate fires of much greater intensity than under a natural fire regime. The intensity of the 2013 Rim Fire was partially due to these conditions. Approximately 19.4 acres of the site were completely burned in 2013 during the Rim Fire, while much of the remaining acreage of the site experienced low to moderate fire severity resulting in impacts to understory vegetation and surface fuels with light to moderate impacts to the overstory. An investigation of historical aerial photographs indicates that up until 2013 these areas supported mixed conifer forest at densities similar to adjacent unburned areas (Google Earth, 2019). In addition to areas that were completely burned, individual trees and small stands of trees outside of those areas were also damaged or burned. Due to the recent wildfire history of the project site, much of the mixed conifer forest community in the project site is disturbed and does not support plant densities and diversity typical of undisturbed examples of this community type. Many trees within the project site were burned during the wildfires. Many saplings are found throughout the project site; unburned mature trees are located in healthy stands left untouched by the fire.

Mixed conifer forest provides habitat for a variety of wildlife species. Mature forests are valuable to cavity nesting birds. Moreover, mast crops are an important food source for many birds as well as mammals. Canopy cover and understory vegetation are variable which makes the habitat suitable for numerous species. In mesic areas, many amphibians may be found in the detrital layer.

Vegetation Alliances

- *Pinus ponderosa* – *Calocedrus decurrens* – *Quercus kelloggii* (87.015.02) Mixed conifer forest

Seasonal Wetland

A seasonal wetland occurs within the central portion of the project site. Dominant vegetation within the seasonal wetland consists entirely of small-fruited bulrush (*Scirpus microcarpus*).

Vegetation Alliances

- *Scirpus micorcarpus* (52.113.00) Small-fruited bulrush marsh*

Seep

A seep occurs within the central portion of the project site. The seep receives groundwater from the surrounding land and drains to an ephemeral drainage. Dominant vegetation includes small-fruited bulrush and nutsedge (*Cyperus eragrostis*).

Vegetation Alliances

- *Scirpus micorcarpus* (52.113.00) Small-fruited bulrush marsh*

Ephemeral Drainage

An ephemeral drainage system occurs within the project site, draining towards the southeast and eventually to the South Fork Tuolumne River, approximately 0.6 miles south of the project site. The main ephemeral drainage begins in the northwestern portion of the project site and extends east then southeast, exiting at the southeastern corner of the project site. A number of small ephemeral drainages drain to this main drainage. Dominant vegetation along the banks of the drainage includes mostly upland plant species including ponderosa pine, incense cedar, Brewer's bittercress (*Cardamine breweri*), lupine (*Lupinus* sp.), and bristly dogtail grass (*Cynosurus echinatus*).

Vegetation Alliances

- None

Disturbed

Disturbed habitat includes graded haul roads and a landing constructed for dead tree removal. The disturbed areas lack vegetation. Disturbed areas were minimal and thus not included in Table 3.4-1 or Figure 3.4-1.

Vegetation Alliances

- None

Aquatic Resources

Wetlands are ecologically complex habitats that support a variety of plant and animal life. In a jurisdictional sense, the federal government defines wetlands in Section 404 of the Clean Water Act (CWA) as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b] and 40 CFR 230.3). Under normal circumstances, the federal definition of wetlands requires three

wetland identification parameters be present: wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to other waters of the U.S (see definition below for “other waters of the U.S.”). The U.S. Army Corps of Engineers (USACE) is the responsible agency for regulating wetlands under Section 404 of the CWA, while the U.S Environmental Protection Agency (USEPA) has overall responsibility for the CWA. “Other waters of the U.S.” refers to those hydric features that are regulated by the CWA but are not wetlands (33 CFR 328.4). To be considered jurisdictional, these features must exhibit a defined bed and bank and an ordinary high-water mark. Examples of other waters of the U.S. include rivers, creeks, intermittent and ephemeral channels, ponds, and lakes.

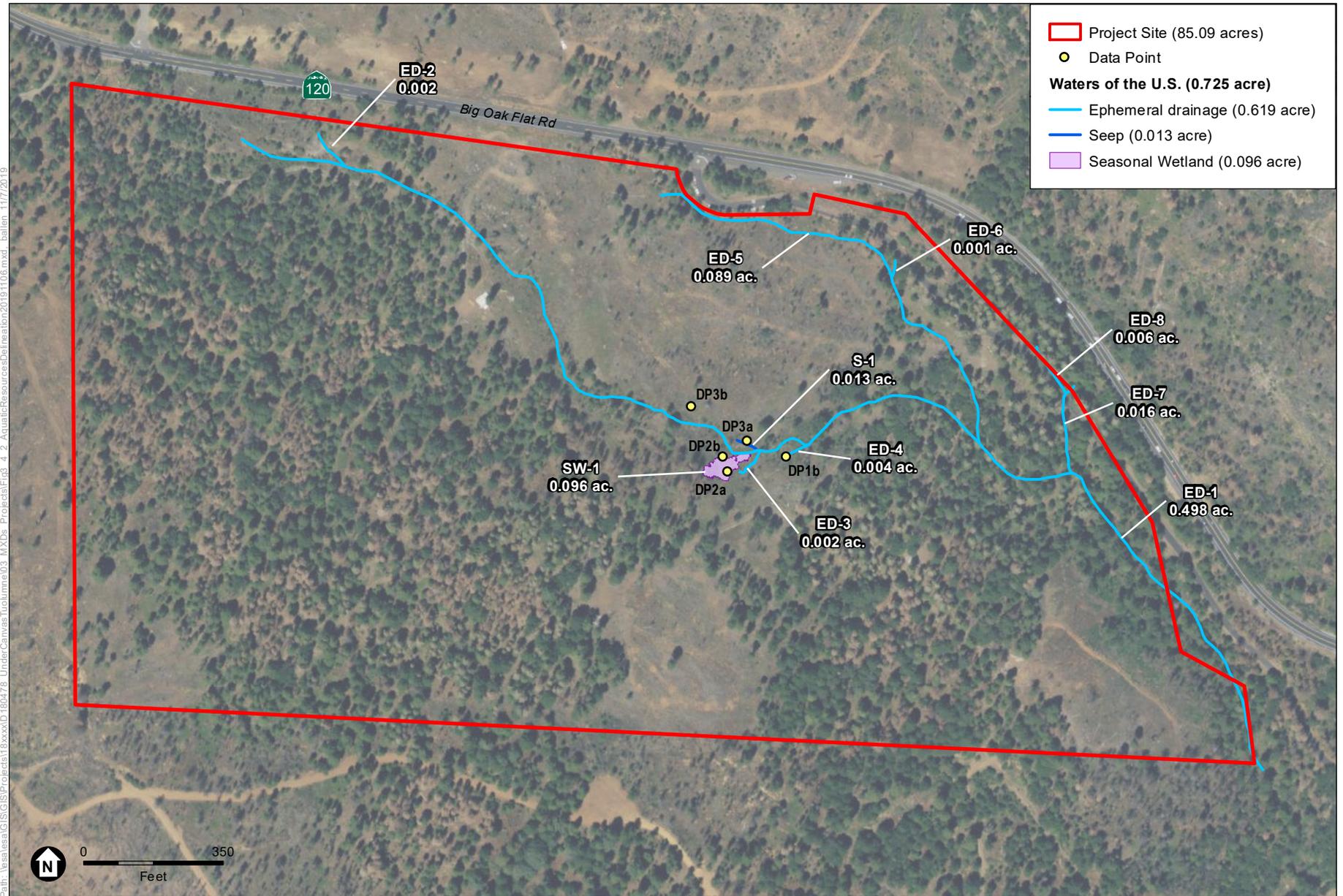
An aquatic resources delineation was conducted for the project site by ESA in June 2018 and January 2019 (ESA, 2019). The aquatic resources delineation identified 0.728 acre of potentially jurisdictional waters of the U.S. within the project site that are expected to be subject to regulation under Section 404 of the CWA (see **Figure 3.4-2**). These features may also be protected under state regulations, including the Porter-Cologne Act and California Fish and Game code. Aquatic resources within the project site consist of seasonal wetland, seep, and ephemeral drainage. Aquatic community and habitat were classified using the *Classification of Wetlands and Deepwater Habitats of the United States (Cowardin Classification)* (Federal Geographic Data Committee, 2013). Potentially jurisdictional features within the project site are summarized in **Table 3.4-2**. The aquatic resources delineation has not yet been verified by the USACE and should be considered preliminary until verification in writing is received from the USACE.

**TABLE 3.4-2
 AQUATIC RESOURCES**

Aquatic Resource Type – Cowardin Classification	Total Acres
Wetlands	
Seasonal Wetland	
Seasonal Wetland – Palustrine Emergent Wetland (Seasonally Flooded)	0.096
Seep	
Seep – Palustrine Emergent Wetland (Seasonally Flooded)	0.013
Other Waters of the U.S.	
Ephemeral Drainage	
Ephemeral Drainage – Riverine Intermittent	0.619
Total Area of Jurisdictional Features:	
	0.728

SOURCE: ESA, 2019

In addition to the potentially jurisdictional waters of the U.S. within the project site, a swale dominated by upland vegetation was noted in the southwestern part of the project site. While this feature does not meet the definition of a water of the U.S. under the Clean Water Act, this feature is assumed to be protected under state regulations, including the Porter-Cologne Act and California Fish and Game Code.



SOURCE: USDA, 2016; ESA, 2018

Yosemite Under Canvas Project
Figure 3.4-2
 Aquatic Resources Delineation

Seasonal Wetland (Palustrine Emergent Wetland – Seasonally Flooded)

Seasonal wetlands are ephemeral wetlands that pond water or remain saturated for extended periods during a portion of the year, often throughout the wet season, then dry up in spring or early summer. The seasonal wetland within the project site is classified as *Palustrine Emergent Wetland (Seasonally Flooded)* using the *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee, 2013). Dominant vegetation within the seasonal wetland consists entirely of small-fruited bulrush. Surface water was present in the seasonal wetland at the time of the field survey.

Seep (Palustrine Emergent Wetland – Seasonally Flooded)

Seeps are wet places where groundwater reaches the surface from an underground source, usually only during portions of the year. The seep in the project site is classified as *Palustrine Emergent Wetland (Seasonally Flooded)* using the *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee, 2013). The seep in the project site receives groundwater from the surrounding land and drains to the main ephemeral drainage. Dominant vegetation includes small-fruited bulrush and nutsedge. Surface water was not present in the seep at the time of the field survey; however, a high water table was present as water was present in the soil pit at a depth of one inch.

Ephemeral Drainage/Riverine Intermittent

Ephemeral channels are classified as “riverine intermittent” using the *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee, 2013). An ephemeral channel has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the only source of water for stream flow.

Terrestrial Wildlife

The habitats described above provide food, water, migration and dispersal corridors, nesting, and thermal cover for many invertebrates, reptiles, amphibians, birds, and mammals. Large mammals known or expected to occur in the project vicinity include coyote (*Canis latrans*), black bear (*Ursus americanus*), mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), and bobcat (*Lynx rufus*). Smaller mammals include the golden-mantled ground squirrel (*Callospermophilus lateralis*), California ground squirrel (*Otospermophilus beecheyi*), western gray squirrel (*Sciurus griseus*), several species of chipmunks (*Tamias* spp.), deer mouse (*Peromyscus maniculatus*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and porcupine (*Erethizon dorsatum*). Reptiles known or expected to occur in the project site include western fence lizard (*Sceloporus occidentalis*) and northern alligator lizard (*Elgaria coerulea*), while amphibians include Sierran treefrog (*Pseudacris sierra*). A wide variety of bird species utilize habitat types in the project site for nesting and foraging. These include Stellar’s jay (*Cyanocitta stelleri*), mountain quail (*Oreortyx pictus*), Lewis’s woodpecker (*Melanerpes lewis*), northern flicker (*Colaptes auratus*), olive-sided flycatcher (*Contopus cooperi*), western wood-pewee (*Contopus sordidulus*), and raptors such as red-tailed hawk (*Buteo jamaicensis*) and sharp-shinned hawk (*Accipiter striatus*).

Sensitive Natural Community

A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, state, or federal agencies. Most sensitive natural communities are given special consideration because they perform important ecological functions, such as maintaining water quality and providing essential habitat for plants and wildlife. Some plant communities support a unique or diverse assemblage of plant species and therefore are considered sensitive from a botanical standpoint. CEQA may identify the elimination of such communities as a significant impact.

Sensitive natural communities include: (a) areas of special concern to federal, state, or local resource agencies; (b) areas regulated under Section 404 of the CWA; (c) areas protected under Section 402 of the CWA; and (d) areas protected under state and local regulations and policies. Habitat types on the project site that would be considered sensitive by regulatory agencies include wetlands and ephemeral drainages, which are regulated under Section 404 of the CWA.

The CDFW's *California Natural Community List* (CDFW, 2020d) ranks vegetation alliances in California according to their degree of rarity imperilment (as measured by rarity, trends, and threats). All alliances are listed with a G (global) and S (state) rank. Alliances with state ranks of S1-S3 are considered of special concern by the CDFW, and all associations within them are also considered to be highly imperiled. CDFW guidance recommends all alliances with state ranks of S1-S3 be considered and analyzed under CEQA. *Scirpus microcarpus* (52.113.00), small-fruited bulrush marsh, which occurs in a seasonal wetland and a seep on the project site, has a state rank of S2 and is considered a sensitive natural community.

Wildlife Movement Corridors

Wildlife movement corridors are considered an important ecological resource by various agencies (CDFW and USFWS) and under CEQA. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Topography and other natural factors, in combination with urbanization, can fragment or separate large open-space areas. Areas of human disturbance or urban development can fragment wildlife habitats and impede wildlife movement between areas of suitable habitat. This fragmentation creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely affect genetic and species diversity. Movement corridors mitigate the effects of this fragmentation by allowing animals to move between remaining habitats, which in turn allows depleted populations to be replenished and promotes genetic exchange between separate populations.

The project site and surrounding area could potentially be used by a variety of wildlife species for dispersal and seasonal migration. However, there are no known wildlife movement corridors on the project site. The project site is located in an area of "connections with implementation flexibility" according to the CDFW's Essential Habitat Connectivity natural landscape blocks (CDFW, 2020e). This category includes areas that have been identified as having connectivity importance, but have not been identified as channelized areas, species corridors, or habitat

linkages at this time. Similarly, the site and the surrounding area were not identified as an area of Essential Habitat Connectivity in the County's 2018 EIR for the General Plan Update Tuolumne County, 2018a). Further, the Tuolumne County Deer Herds and Migration Map prepared in support of the General Plan Update's EIR shows the nearest deer migration route for the Yosemite Migrant Deer Herd as occurring about one mile west of the project site (Tuolumne County, 2018b).

Special Status Species

Special-status species are legally protected under the state and federal Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are classified under the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations [CCR] 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- Animal species of special concern to CDFW;
- Animals fully protected under Fish and Game Code (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (State CEQA Guidelines, Section 15380); and
- Plants considered under the CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B, and 2 in CNPS, 2020).

A list of special-status species that have the potential to occur within the vicinity of the project site was compiled based on data contained in the CNDDDB (CDFW, 2020a), the USFWS list of federal endangered and threatened species that occur in or may be affected by the proposed project (USFWS, 2020a), and the CNPS Inventory of Rare and Endangered Plants (CNPS, 2020). A list of special-status species, their general habitat requirements, and an assessment of their potential to occur within and adjacent to the project site is provided below in **Table 3.4-3**.

The "Potential to Occur" categories are defined as follows:

Unlikely: The project site and surrounding area does not support suitable habitat for a particular species and/or the project site is outside of the species known range; or, species-specific protocol-level surveys were conducted on the project site for the species and the results were negative;

Low Potential: The project site and/or adjacent area provides only limited amounts and low quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate project vicinity;

Medium Potential: The project site and/or adjacent area provides suitable habitat for a particular species; and

High Potential: The project site and/or adjacent area provide ideal habitat conditions for a particular species and/or known populations occur in the within the project site and adjacent area.

**TABLE 3.4-3
 REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Fish			
<i>Hypomesus transpacificus</i> Delta smelt	FT/SE/--	Found in the Sacramento-San Joaquin delta, Suisun Bay, Carquinez Strait, and San Pablo Bay.	Unlikely. No suitable habitat within the project site. Project site outside of geographic range.
Amphibians			
<i>Anaxyrus canorus</i> Yosemite toad	FT/CSC/--	In the vicinity of wet meadows in the central High Sierra, 6,400 to 11,300 feet in elevation. Primarily montane wet meadows; also in seasonal ponds associated with lodgepole pine and subalpine conifer forest.	Unlikely. No suitable habitat within the project site. Project site outside of elevation range of the species.
<i>Hydromantes brunus</i> limestone salamander	--/ST,CFP/--	Limestone outcrops in foothill-pine-chaparral belt along the Merced River and its tributaries, from 800 to 2,600 feet in elevation. California buckeye is an indicator of optimal habitat. Seeks cover in limestone caverns, talus, rock fissures, and surface objects.	Unlikely. No suitable habitat within the project site. Project site outside of elevation range of the species.
<i>Rana boylei</i> Foothill yellow-legged frog	--/SCT,CSC/--	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying.	Unlikely. No suitable habitat within the project site. Drainages onsite are ephemeral, seasonally dry, and have no in-stream vegetation to provide cover and breeding habitat.
<i>Rana draytonii</i> California red-legged frog	FT/CSC/--	Breeds in slow moving streams, ponds, and marshes with emergent vegetation and an absence or low occurrence of predators.	Unlikely. No suitable habitat within the project site. Drainages onsite are ephemeral, seasonally dry, and have no in-stream vegetation to provide cover and breeding habitat.
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	FE/ST/--	Streams, lakes, and ponds in montane riparian habitats. Always encountered within a few feet of water. Tadpoles may require 2–4 years to complete their aquatic development.	Unlikely. No suitable habitat within the project site. Perennial water features are not present within the project site.

**TABLE 3.4-3
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Reptiles			
<i>Emys marmorata</i> western pond turtle	--/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	Unlikely. No suitable habitat within the project site. Perennial water features are not present within the project site.
Birds			
<i>Accipiter gentilis</i> northern goshawk	--/CSC/--	Within, and in 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.	Medium. The project site provides suitable habitat for this species.
<i>Empidonax traillii</i> willow flycatcher	--/SE/--	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters, from 2,000 to 8,000 feet. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	Unlikely. No suitable habitat within the project site.
<i>Falco peregrinus anatum</i> American peregrine falcon	--/CFP/--	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, and mounds as well as human-made structures. Nest consists of a scrape or depression or ledge in an open site.	Unlikely. No suitable habitat within the project site.
<i>Haliaeetus leucocephalus</i> Bald eagle	BEPA/SE, CFP/--	Found at lakes, reservoirs, river systems, and coastal wetlands. The breeding range is generally in mountainous areas near lake or river margins, where they find large trees (usually conifers) with open branches for nesting.	Low. The South Fork Tuolumne River is approximately 0.6-mile south of the project site. Marginal nesting trees within the project site.
<i>Strix nebulosa</i> great gray owl	--/SE/--	Occurs within old growth red-fir, mixed conifer, and lodgepole pine habitats above 4,500 feet. Most occurrences along the Tuolumne River and the Merced River in Yosemite Valley. Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy micro-climate.	Unlikely. No suitable habitat within the project site.
<i>Strix occidentalis occidentalis</i> California spotted owl	--/CSC/--	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure greater than 40%. Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	Medium. The project site provides suitable habitat for this species.

**TABLE 3.4-3
 REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Mammals			
<i>Antrozous pallidus</i> Pallid bat	--/CSC/--	A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. Roosts in buildings, caves, tree hollows, crevices, mines, and bridges.	Medium. Mature trees in the project site may provide suitable roosting habitat, and open areas within and adjacent to the project site provide suitable foraging habitat.
<i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver	--/CSC/--	Dense growth of small deciduous trees and shrubs, wet soil, and an abundance of forbs in the Sierra Nevada and east slope. Needs dense understory for food and cover. Burrows into soft soil. Needs abundant supply of water.	Unlikely. No suitable habitat within the project site.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--/CSC/--	Found throughout California in a wide variety of habitats. Roost in caves, mines, tunnels with minimal disturbance but can also be found in abandoned open buildings or other human made structures. Extremely sensitive to human disturbance.	Unlikely. No suitable habitat within the project site.
<i>Euderma maculatum</i> spotted bat	--/CSC/--	Forages over water and along washes within a wide variety of habitats including grasslands, deserts, and mixed conifer forests. Roosts on rock crevices in caves or on cliffs.	Medium. Suitable foraging habitat present within the project site. Suitable roost sites are absent.
<i>Eumops perotis californicus</i> western mastiff bat	--/CSC/--	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral etc. Isolated occurrences in northern California. Roosts primarily in crevices within cliffs and canyons, occasionally in buildings. Primarily feeds on moths. Maternity colonies active May through July.	Medium. Suitable foraging habitat present within the project site. Suitable roost sites are absent.
<i>Lasiurus blossevillii</i> western red bat	--/CSC/--	Forages in a wide range of habitats but prefers habitat edges and mosaics with large trees that have open understories. Roosts primarily in trees.	Medium. Suitable roosting habitat is present in the mixed conifer forest. Suitable foraging habitat is present in areas of open understory of mixed conifer forest.
<i>Pekania pennanti</i> fisher – West Coast DPS	FP/ST,CSC/--	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning. Needs large areas of mature dense forest.	Unlikely. No suitable habitat within the project site.

**TABLE 3.4-3
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Mammals (cont.)			
<i>Vulpes vulpes necator</i> Sierra Nevada red fox	FC/ST/--	Historically found from the Cascades down to the Sierra Nevada. Found in a variety of habitats from wet meadows to forested areas. Use dense vegetation and rocky areas for cover and den sites. Prefer forests interspersed with meadows or alpine fell-fields.	Unlikely. No suitable habitat within the project site.
Invertebrates			
<i>Bombus crotchii</i> Crotch bumble bee	--/SCE/--	Crotch bumble bee is nearly endemic to California, historically ranging across southern California, from the coast and coastal ranges, through the Central Valley, and to the adjacent foothills. This species inhabits open grassland and scrub habitats. Like all bumble bees, this species requires floral resources, and undisturbed nest sites and overwintering sites.	Unlikely. No suitable habitat within the project site. Project site outside of elevation range of the species.
<i>Bombus occidentalis</i> Western bumble bee	--/SCE/--	Formerly found in much of California, the Western bumble bee is now much reduced in abundance and mostly restricted to high elevation meadows or coastal environments. Western bumble bees nest, forage, and overwinter in meadows and grasslands with abundant floral resources. Like all bumble bees, this species requires floral resources, and undisturbed nest sites and overwintering sites.	Unlikely. No suitable habitat within the project site.
Plants			
<i>Agrostis humilis</i> mountain bent grass	--/--/2B.3	Meadows, seeps, and alpine boulder and rock fields in subalpine coniferous forest. Sometimes on carbonate soils. 8,750 – 10,500 feet. Blooms July to September.	Unlikely. No suitable habitat within the project site. Project site outside of elevation range of the species.
<i>Allium tribracteatum</i> three-bracted onion	--/--/1B.2	Volcanic slopes in coniferous forest and chaparral. 3,600 – 9,850 feet. Blooms April to August.	Unlikely. No suitable habitat within the project site.
<i>Allium yosemitense</i> Yosemite onion	--/--/1B.3	Rocky, metamorphic, or granitic soils in broadleaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest. 1,750 – 7,200 feet. Blooms April to July.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	--/--/1B.2	Open grassy or rocky slopes in chaparral, cismontane woodland, and grasslands. Often on serpentine soils. 295 – 5,085 feet. Blooms March to June.	Unlikely. No suitable habitat within the project site.

**TABLE 3.4-3
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Plants (cont.)			
<i>Brasenia schreberi</i> watershield	--/--/2B.3	Freshwater marshes and swamps. 100 – 7,200 feet. Blooms June to September.	Unlikely. No suitable habitat within the project site.
<i>Carex limosa</i> med sedge	--/--/2B.2	Freshwater bogs, fens, marshes, swamps, meadows, and seeps in montane coniferous forest. 3,900 – 8,850 feet. Blooms June to August.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Carex viridula</i> subsp. <i>viridula</i> green yellow sedge	--/--/2B.3	Freshwater bogs, fens, marshes, and swamps. Also found in North Coast mesic forests. 0 – 5,250 feet. Blooms June to November.	Unlikely. No suitable habitat within the project site.
<i>Cinna bolanderi</i> Bolander's woodreed	--/--/1B.2	Streambanks and other mesic sites such as meadows and seeps in upper montane coniferous forest. 5,500 – 8,000 feet. Blooms July to September.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Clarkia australis</i> Small's southern clarkia	--/--/1B.2	Open, rocky sites in Sierra Nevada yellow pine forest. 2,625 – 6,800 ft. Blooms May to August.	Unlikely. No suitable habitat within the project site.
<i>Clarkia biloba</i> subsp. <i>australis</i> mountain bent grass	--/--/1B.2	Chaparral and woodlands of the Sierra Nevada Foothills. Sometimes on serpentine. 985 – 4,790 ft. Blooms May to July.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Clarkia lingulata</i> Mariposa clarkia	--/--/1B.1	Chaparral and cismontane woodland. 1,300 – 1,500 feet. Blooms May to June.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Diplacus pulchellus</i> yellow-lip pansyflower	--/--/1B.2	Vernally mesic, often disturbed sites on clay soils. Meadows and seeps within lower montane coniferous forest. 2,000 – 6,500 feet. Blooms April to June.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Eriophyllum congdonii</i> Congdon's woolly sunflower	--/--/1B.2	Rocky, metamorphic soils in chaparral, cismontane woodland, lower montane coniferous forest, and grasslands. 1,650 – 6,250 feet. Blooms April to June.	Unlikely. No suitable habitat within the project site.
<i>Eriophyllum nubigenum</i> Yosemite woolly sunflower	--/--/1B.3	Gravelly, granitic soils in chaparral and montane coniferous forest. 5,000 – 9,000 feet. Blooms May to August.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Erythranthe filicaulis</i> slender-stemmed monkeyflower	--/--/1B.2	Vernally mesic sites such as meadows and seeps in woodland and coniferous forest. 2,950 – 5,750 feet. Blooms April to August.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.

**TABLE 3.4-3
REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Plants (cont.)			
<i>Erythronium taylorii</i> Pilot Ridge fawn lily	--/--/1B.2	Metamorphic, rocky soils on cliffs in lower montane coniferous forest. 4,400 – 4,600 feet. Blooms April to May.	Unlikely. No suitable habitat within the project site.
<i>Erythronium tuolumnense</i> Tuolumne fawn lily	--/--/1B.2	Broadleaf upland forests, chaparral, cismontane woodland, coniferous forests 1,675 – 4,475 feet. Flowering period: Mar–June.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Horkelia parryi</i> Parry's horkelia	--/--/1B.2	Open chaparral on lone formation and limestone soils. 260 – 3,510 feet. Blooms April–September.	Unlikely. No suitable habitat within the project site.
<i>Hulsea brevifolia</i> short-leaved hulsea	--/--/1B.2	Granitic, volcanic, gravelly, or sandy soils in coniferous forest. 4,900 – 10,500 feet. Blooms May to August.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Lewisia congdonii</i> Congdon's lomatium	--/--/1B.3	Granitic and metamorphic soils on rocky, mesic sites in chaparral, woodland, coniferous forest, and grassland. 1,650 – 9,200 feet. Blooms April to June.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Lomatium congdonii</i> Congdon's lomatium	--/--/1B.2	Serpentine soil in chaparral, cismontane woodland. 985 – 6,890 feet. Blooms Mar-Jun.	Unlikely. No suitable habitat within the project site.
<i>Lupinus spectabilis</i> shaggyhair lupine	--/--/1B.2	Serpentine soil in chaparral and woodland of the Sierra Nevada foothills. 855 – 2,700 ft. Blooms Apr-May.	Unlikely. No suitable habitat within the project site.
<i>Mielichhoferia shevockii</i> Shevock's copper moss	--/--/1B.2	Found on metamorphic rock, usually acidic, usually vernal mesic, sometimes carbonate. 0 – 6,450 feet.	Unlikely. No suitable habitat within the project site.
<i>Orthotrichum holzingeri</i> Holzinger's orthotrichum moss	--/--/1B.3	Usually on rocks in and along streams, rarely on tree limbs. 2,350 – 5,900 feet.	Unlikely. No suitable habitat within the project site.
<i>Plagiobothrys torreyi</i> var. <i>torreyi</i> Yosemite popcornflower	--/--/1B.2	Meadows and seeps in lower montane coniferous forest. 3,950 – 4,500 feet. Blooms April to June.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Potamogeton epihydrus</i> Nuttall's ribbon-leaved pondweed	--/--/2B.2	Marshes and swamps and assorted shallow freshwater habitats. 1,200 – 7,125 feet. Blooms June to September.	Unlikely. No suitable habitat within the project site.
<i>Potamogeton robbinsii</i> Robbin's pondweed	--/--/2B.3	Deep water in lakes, marshes, and swamps. 5,000 – 10,800 feet. Blooms July to August.	Unlikely. No suitable habitat within the project site.

**TABLE 3.4-3
 REGIONALLY OCCURRING SPECIAL-STATUS SPECIES**

Scientific Name Common Name	Listing Status USFWS/ CDFW/CNPS	General Habitat	Potential to Occur in the Project Site or Adjacent Area
Plants (cont.)			
<i>Rhynchospora californica</i> California beaked rush	--/--/1B.1	Bogs, fens, marshes, swamps, meadows, and seeps in coniferous forests. 150 – 3,300 feet. Blooms May to July.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Rhynchospora capitellata</i> brownish beaked rush	--/--/2B.2	Mesic sites such as meadows, seeps, marshes, and swamps in coniferous forest. 150 – 6,500 feet. Blooms July to August.	Unlikely. Suitable habitat is present within the project site. However, species not observed during focused botanical surveys conducted in 2019.
<i>Schoenoplectus subterminalis</i> water bulrush	--/--/2B.3	Montane lake margins. 2,450 – 7,400 feet. Blooms June to September.	Unlikely. No suitable habitat within the project site.

STATUS CODES:

FEDERAL (U.S. Fish and Wildlife Service):

- BEPA = Bald Eagle Protection Act
- FE = Listed as Endangered by the Federal Government
- FT = Listed as Threatened by the Federal Government
- FP = Proposed for Federal Listing
- FC = Candidate for Federal Listing

STATE (California Department of Fish and Wildlife):

- SE = Listed as Endangered by the State of California
- ST = Listed as Threatened by the State of California
- SCE = Candidate for State Listing (Endangered)
- SCT = Candidate for State Listing (Threatened)
- CSC = California species of special concern
- CFP = California fully protected bird species

California Native Plant Society (CNPS):

- Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere
- Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
- Rank 2A = Plants presumed extirpated in California but common elsewhere
- Rank 2B = Plants rare, threatened, or endangered in California but more common elsewhere
- Rank 3 = Plants about which more information is needed
- Rank 4 = Plants of limited distribution

CNPS Code Extensions

- .1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 = Fairly threatened in California (20-80% occurrences threatened)
- .3 = Not very threatened in California (less than 20% of occurrences threatened or no current threats known)

SOURCE: CDFW, 2020a; USFWS, 2020a; CNPS, 2020

Conclusions regarding habitat suitability and species occurrence are based on the analysis of existing literature and databases described previously and known habitats occurring within the project site and regionally.

Database queries identify 51 special-status plant and wildlife species records. Of these, 45 species were eliminated from further consideration based upon a lack of suitable habitat in the project site, the project site being outside the known range of the species, or protocol-level surveys were conducted on the project site for the species and the results were negative. Six special-status species have medium potential to occur in the project site or adjacent area. No special-status

species have high potential to occur in the project site or adjacent area. Species with a medium or high potential to occur are described in detail below. Only species classified as having a medium or high potential for occurrence were considered in the impact analysis.

Northern Goshawk (*Accipiter gentilis*)

Status. California species of special concern

General Distribution. Northern goshawks occupy temperate and boreal forests throughout the northern hemisphere. In California, they breed in the north Coast Ranges through the Sierra Nevada, Klamath, Cascade, and Warner Mountains. They are year-round residents throughout all or most of their California range, although in winter some individuals remain on or near breeding territories while others migrate short distances to winter elsewhere. Throughout their range, they inhabit moderately dense coniferous forests broken by meadows and other openings. Within the Sierra Nevada, northern goshawks breed from approximately 2,500 feet in the ponderosa pine forests through approximately 10,000 feet in red fir and lodgepole pine forests, and throughout eastside pine forests on the east slope. Additionally, northern goshawks nest in aspen stands occurring within shrub vegetation types on the eastern slope of the Sierra Nevada and throughout the Great Basin.

Habitat Requirements. Throughout their range, whether at sea level or in alpine settings, northern goshawks nest in mature and old-growth forests with more than 60% closed canopy. Goshawks often build nests near breaks in the canopy, such as a forest trail, jeep road, or opening created by a downed tree, and prefer sites with a creek, pond, or lake nearby. Northern goshawks forage in mature and old-growth forests that have relatively dense canopies and open understories but also hunt among a variety of vegetative cover, including meadow edges. Goshawks hunt from tree perches, scanning the ground and lower canopy for prey. As such, an open understory improves the chances of detection and capture of prey.

Status in the Project Site. Suitable nesting habitat for northern goshawk occurs within the mixed conifer forest on and adjacent to the project site. In addition, the project site and surrounding area supports foraging habitat for this species. There are no records of northern goshawk from the CNDDDB within five miles of the project site (CDFW, 2020a). This species was not observed during the reconnaissance-level biological surveys conducted for the proposed project.

California Spotted Owl (*Strix occidentalis occidentalis*)

Status. California species of special concern

General Distribution. The California spotted owl is continuously distributed throughout the forests of the western Sierra Nevada mountains, from Shasta County south to the Tehachapi Pass. There is a gap in the distribution south of the Sierras, and California spotted owls again occur in southern and central coastal California. Just north of Lassen Peak to south of the Pit River, the range of California spotted owl transitions into that of the northern spotted owl. The owl resides in forest habitats at elevations of below 1,000 feet along the coast to as high as 8,500 feet inland. The Sierra Nevada offers the only extensive, nearly continuous habitat for the California spotted owl and is of critical importance for protecting this subspecies.

Habitat Requirements. California spotted owls generally inhabit older forests that contain structural characteristics necessary for nesting, roosting, and foraging. Nests are typically found in areas of high canopy cover, with a multi-layered canopy, old decadent trees, a high number of large trees, and coarse downed woody debris. Within an owl territory, spatial heterogeneity to some degree is important for foraging habitat. The California spotted owl is strongly associated with areas of mature and old forest with thick canopy that contains many dense, old, live, and dead trees and fallen logs. Spotted owls prey mainly on small to medium-sized mammals, primarily rodents in the Sierra Nevada. It mostly consumes northern flying squirrels (*Glaucomys sabrinus*) in the higher elevations (conifer forests) and woodrats (*Neotoma* spp.) at lower elevations (burned mixed-conifer, oak woodlands, and riparian forests) and throughout southern California. Downed woody debris in higher-elevation forests of the Sierra Nevada is strongly associated with underground fungi, which are important food for spotted owl prey species, such as northern flying squirrels.

Status in Project Site. Suitable nesting habitat for California spotted owl occurs within the mixed conifer forest on and adjacent to the project site. In addition, the project site and surrounding area supports foraging habitat for this species. There are 14 records of California spotted owl “activity centers²” from the CNDDDB within five miles of the project site, the most recent from 2010 (CDFW, 2020a). This species was not observed during the reconnaissance-level biological surveys conducted for the proposed project.

Pallid Bat (*Antrozous pallidus*)

Status. California species of special concern

General Distribution. The pallid bat is found from southern British Columbia and Montana to central Mexico and Cuba, and east to Texas, Oklahoma, and Kansas. Throughout California, the species inhabits primarily low to mid elevations, although it has been found up to 11,000 feet in the Sierra Nevada. Habitats range from desert to coniferous forest and broadleaved woodlands.

Habitat Requirements. This species is quite versatile in its choice of roosting sites and has been documented using tree hollows (both oak and ponderosa pine), rock crevices, caves, abandoned mines, and other anthropogenic structures such as buildings and bridges. This species is gregarious and roosts in nursery colonies of typically between 30 and several hundred individuals. The pallid bat feeds primarily on large, flightless arthropods such as scorpions, Jerusalem crickets, cicadas, wolf spiders, and centipedes. Large cerambycid beetles are also major prey items.

Status in Project Site. Suitable roosting habitat for pallid bat occurs within the mixed conifer forest on and adjacent to the project site. In addition, the project site and surrounding area supports foraging habitat for this species. There are four records of pallid bat from the CNDDDB within five miles of the project site, the most recent from 1999 (CDFW, 2020a). This species was not observed during the reconnaissance-level biological surveys conducted for the proposed project.

² Activity Center: Spotted owls have been characterized as central-place foragers, where individuals forage over a wide area and subsequently return to a nest or roost location that is often centrally located within the home range. Activity centers are a location or point within the core area that represent this central location. Nest or roost sites are typically used to identify activity centers.

Spotted Bat (*Euderma maculatum*)

Status. California species of special concern

General Distribution. Although considered one of North America's rarest mammals, the spotted bat is widely distributed throughout much of the western United States, with its range extending as far north as southern British Columbia and as far south as Durango, Mexico. In the Sierra Nevada, spotted bats are widely distributed in habitats ranging from desert scrub to montane coniferous forest, with acoustic detections at elevations up to 9,800 feet.

Habitat Requirements. Limited information suggests that spotted bats do not roost in colonies and roost predominantly in crevices in caves or on cliffs. Surveys in the Sierra Nevada suggest that they are most abundant in areas with fractured rock. The spotted bat is capable of long distance and rapid flight, thus foraging ranges can be large. In montane habitats, the spotted bat forages over meadows, along forest edges, or in open coniferous woodland. Spotted bats feed primarily on large moths.

Status in Project Site. Suitable foraging habitat for spotted bat occurs within the mixed conifer forest on and adjacent to the project site. There is no suitable roosting habitat for this bat species in the project site or adjacent area. There is a single record of spotted bat from the CNDDDB within five miles of the project site. This occurrence was recorded in 1999 (CDFW, 2020a). This species was not observed during the reconnaissance-level biological surveys conducted for the proposed project.

Western Mastiff Bat (*Eumops perotis californicus*)

Status. California species of special concern

General Distribution. The subspecies of western mastiff bat that occurs in North America, *E. p. californicus*, ranges from central Mexico across the southwestern United States (parts of California, southern Nevada, Arizona, southern New Mexico and western Texas). The western mastiff bat is found along the west side of the Sierra Nevada, primarily at low to mid-elevations but has been detected up to 9,800 feet in the summer.

Habitat Requirements. Western mastiff bats are found in a variety of habitats, from desert scrub and chaparral to montane coniferous forest. Its presence is determined by the availability of significant rock features offering suitable roosting habitat. This species may forage in flocks, and can forage considerable distances from their roosting sites. Foraging habitats include dry desert washes, floodplains, chaparral, oak woodland, open ponderosa pine forest, grassland, agricultural areas, and high-elevation meadows surrounded by mixed-conifer forests. The diet of western mastiff bats consists primarily of moths but also includes beetles, crickets, and katydid.

Status in Project Site. Suitable foraging habitat for western mastiff bat occurs within the mixed conifer forest on and adjacent to the project site. There is no suitable roosting habitat for this bat species in the project site or adjacent area. There are four records of western mastiff bat from the CNDDDB within five miles of the project site, the most recent from 1999 (CDFW, 2020a). This species was not observed during the reconnaissance-level biological surveys conducted for the proposed project.

Western Red Bat (*Lasiurus blossevillii*)

Status. California species of special concern

General Distribution. The western red bat is broadly distributed from southern British Columbia in Canada, through much of the western United States, through Mexico and Central America, to Argentina and Chile in South America. In California, the majority of records are from the coastal areas from the San Francisco Bay Area south, plus the Central Valley and bordering foothills, with a limited number of records from southern California extending as far east as western Riverside and central San Diego Counties. There are a few records from higher elevations and the east side of the Sierra Nevada. Winter populations of both sexes are concentrated along the central and southern coast. Western red bats (most likely males or nonreproductive females) have been documented at elevations up to 8,200 feet in the Sierra Nevada.

Habitat Requirements. Western red bats roost on the underside of overhanging leaves, primarily in trees, and less often in shrubs. Roost sites are often in edge habitats adjacent to streams or fields. Preferred roost sites are protected from above, open below, and located above dark ground-cover. Red bats forage on a number of insect taxa and fly at both canopy height and low over the ground. The most important prey are moths, crickets, beetles, and cicadas.

Status in Project Site. Suitable roosting habitat for western red bat occurs within the mixed conifer forest on and adjacent to the project site. In addition, the project site and surrounding area supports foraging habitat for this species. There is a single record of western red bat from the CNDDDB within five miles of the project site. This occurrence was recorded in 1999 (CDFW, 2020a). This species was not observed during the reconnaissance-level biological surveys conducted for the proposed project.

Common Raptor Species

Common raptor species, such as the red-tailed hawk (*Buteo jamaicensis*), are not considered special-status species because they are not rare or protected under the federal or state Endangered Species Acts. However, nests of these species are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code. Common raptor species may nest in trees located within the project site or in adjacent areas.

Common Migratory Birds

A large number of common bird species are migratory and are afforded protection under the MBTA. Occupied nests of all migratory birds are protected under the MBTA, which makes it illegal to destroy any active migratory bird nest.

Critical Habitat

Critical habitat is defined in Section 3(5)A of the federal Endangered Species Act as the specific portions of the geographic area occupied by the species in which physical or biological features essential to the conservation of the species are found and that may require special management considerations or protection. Specific areas outside of the geographic area occupied by the species may also be included in critical habitat designations upon a determination that such areas are essential for the conservation of the species.

There is no critical habitat designated within or adjacent to the project site.

3.4.3 Regulatory Framework

This subsection briefly describes federal, state, and local regulations, permits, and policies pertaining to biological resources as they apply to the proposed project. The project proponent would be required to abide by all applicable regulations and permit requirements in effect at the time of construction.

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) protects candidate, threatened, and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process. Procedures for addressing impacts to federally listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the FESA for all terrestrial species. The first pathway, Section 10(a) incidental take permit, applies to situations where a non-federal government entity must resolve potential adverse impacts to species protected under the FESA. The second pathway, Section 7 consultation, applies to projects directly undertaken by a federal agency or private projects requiring a federal permit or approval.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) enacts the provisions of treaties between the U.S., Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs. Most actions that result in a taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. Examples of permitted actions that do not violate the MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird banding, and other similar activities. USFWS is responsible for overseeing compliance with the MBTA.

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the U.S. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

Section 404

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the U.S. Waters of the U.S. refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands. Applicants must obtain a permit from the U.S. Army Corps of Engineers (USACE) for all discharges of

dredged or fill material into waters of the U.S., including wetlands, before proceeding with a proposed activity. Waters of the U.S. are under the jurisdiction of the USACE and the USEPA.

Compliance with CWA Section 404 requires compliance with several other environmental laws and regulations. The USACE cannot issue an individual permit or verify the use of a general nationwide permit until the requirements of FESA and the National Historic Preservation Act have been met. In addition, the USACE cannot issue or verify any permit until a water quality certification or a waiver of certification has been issued pursuant to CWA Section 401.

Section 401

Under CWA Section 401, applicants for a federal license or permit to conduct activities which may result in the discharge of a pollutant into waters of the U.S. must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401.

State

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board and the Regional Water Quality Control Boards (RWQCBs) (together “Boards”) are the principal state agencies with primary responsibility for the coordination and control of water quality. In the Porter-Cologne Water Quality Control Act (Porter-Cologne), the Legislature declared that the “state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation...” (California Water Code section 13000).

Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the state. Waters of the state determined to be jurisdictional would require, if impacted, waste discharge permitting and/or a CWA Section 401 certification (in the case of a required USACE permit under Section 404). The enforcement of the state's water quality requirements is not solely the purview of the Boards and their staff. Other agencies (e.g., the CDFW under Section 5650 of the California Fish and Game Code) have the authority to enforce certain water quality provisions in state law.

California Endangered Species Act

Under the California Endangered Species Act (CESA), CDFW has the responsibility for maintaining a list of endangered and threatened species.³ Sections 2050 through 2098 of the California Fish and Game Code outline the protection provided to California’s rare, endangered, and threatened species. Section 2080 of the California Fish and Game Code prohibits the taking of plants and animals listed under the CESA. Section 2081 established an incidental take permit program for state-listed species. CDFW maintains a list of “candidate species” which are species

³ Section 2070 of the California Fish and Game Code.

that CDFW formally notices as being under review for addition to the list of endangered or threatened species.

Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project site and determine whether the proposed project would have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. Under Section 86 of the California Fish and Game Code “take” is defined as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”. “Take” of protected species incidental to otherwise lawful management activities may be authorized under California Fish and Game Code Section 206.591. Authorization from CDFW would be in the form of an Incidental Take Permit.

California Fish and Game Code

Fully Protected Species

Certain species are considered *fully protected*, meaning that the code explicitly prohibits all take of individuals of these species except for take permitted for scientific research. Section 5050 lists fully protected amphibians and reptiles, Section 5515 lists fully protected fish, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals.

It is possible for a species to be protected under California Fish and Game Code, but not fully protected. For instance, mountain lion (*Puma concolor*) is protected under Section 4800, et seq., but is not a fully protected species.

Protection of Birds and Their Nests

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any regulation made pursuant thereto. Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory non-game birds are protected under Section 3800, while other specified birds are protected under California Fish and Game Code Section 3505.

Stream and Lake Protection

CDFW has regulatory authority over streams and lakes and the wetland resources associated with these aquatic systems under California Fish and Game Code Sections 1600, et seq. through administration of lake or streambed alteration agreements. Such an agreement is not a permit, but rather a mutual accord between CDFW and a project proponent. Under Sections 1600, et seq., of the California Fish and Game Code, CDFW has the authority to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river lake or stream.” CDFW enters into a lake or streambed alteration agreement with the project

proponent and can impose conditions in the agreement to minimize and mitigate impacts to fish and wildlife resources. Because CDFW includes under its regulatory authority streamside habitats that may not qualify as wetlands under the federal CWA definition, CDFW regulatory authority may be broader than USACE jurisdiction.

Pursuant to the California Fish and Game Code, a project proponent must submit a notification of lake or streambed alteration to CDFW before construction. The notification requires an application fee for a lake or streambed alteration agreement, with a specific fee schedule to be determined by CDFW. CDFW can enter into programmatic agreements that cover recurring operation and maintenance activities and regional plans. These agreements are sometimes referred to as Master Streambed Alteration Agreements (MSAAs).

Under Fish and Game Code Section 1602 (Streambed Alteration Agreements), CDFW takes regulatory authority over the stream zone which is defined top of bank or outside extent of riparian vegetation, whichever is the greatest. Within the stream zone, waters of the state of California are typically delineated to include the streambed to the top of the bank and adjacent areas that would meet any one of the three wetland parameters in the USACE definition (vegetation, hydrology, and/or soils). CDFW regulatory authority is not limited to navigable waters or tributaries to navigable waters; however, isolated wetlands and wetlands not associated with a streambed are not subject to CDFW regulatory authority.

Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed the CDFW to carry out the legislature’s intent to “preserve, protect, and enhance endangered plants in this state.” The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. CESA expanded on the original NPPA and enhanced legal protection for plants. CESA established threatened and endangered species categories, and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, three listing categories for plants are employed in California: rare, threatened, and endangered.

California Rare Plant Ranking System

CDFW works in collaboration with the CNPS to maintain a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. These species are categorized by rarity in the California Rare Plant Ranking (CRPR) system. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CRPR species may receive consideration under CEQA review. The following identifies the definitions of the CRPR:

- Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere.

Rank 2B: Plants Rare, Threatened, or Endangered in California, but more common elsewhere.

Rank 3: Plants about which more information is needed - A Review List.

Rank 4: Plants of limited distribution - A Watch List.

Local

Tuolumne County Wildlife Handbook

The Tuolumne County Wildlife Handbook is used by the County to guide decision-making that may affect biological resources (Tuolumne County, 1987). The guide specifies priorities and objectives for wildlife conservation, as well as approaches for developing mitigation measures. The County offers the option to use the handbook when evaluating impacts and potential mitigation measures for biological resources although other options may be used.

Tuolumne County General Plan

Biological are addressed in the Tuolumne County General Plan Natural Resources Element. Applicable policies from the Tuolumne County General Plan are listed below.

Natural Resources Element

Policy 16.A.6: Encourage the protection of clusters of native trees and vegetation and outstanding individual native and non-native trees which help define the character of Tuolumne County.

Policy 16.B.4: Recognize that wildlife, fish and their habitats provide opportunities for recreational uses and educational pursuits and are a source of revenue to the County.

Policy 16.B.5: Evaluate and mitigate impacts to biological resources in accordance with the requirements of State and Federal law.

Policy 16.B.8: Balance the conservation of biological resources with the need to reduce wildland fire hazards.

Policy 16.B.9: Encourage the eradication of invasive plant species to protect native habitats, conserve agricultural land, support ecological diversity, and reduce the wildland fire hazard.

3.4.4 Impacts and Mitigation Measures

Significance Criteria

The project would result in a significant impact on the environment if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;

3. 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;
4. 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;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Assessment Methodology

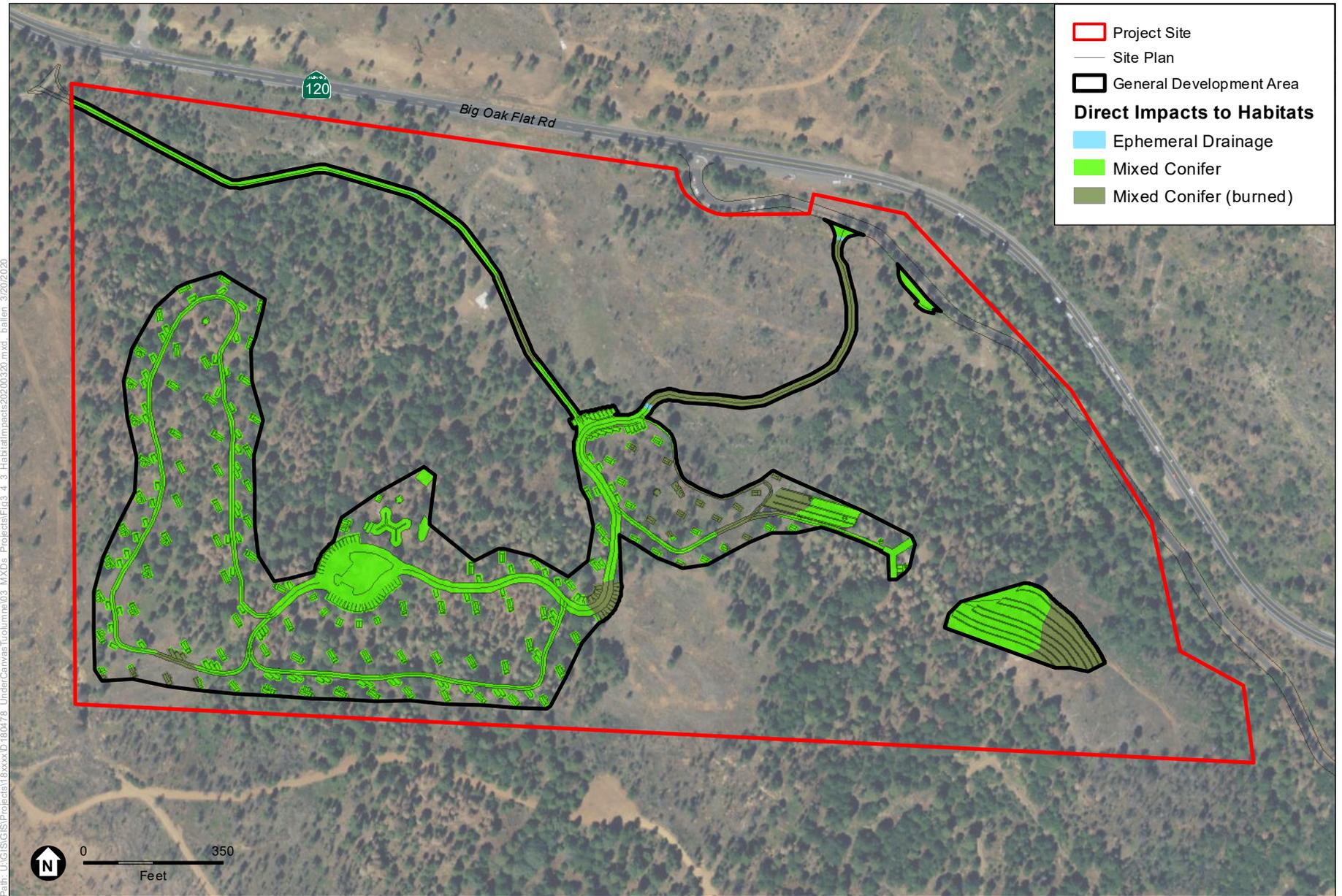
This section assesses the potential for the project to adversely change biological resources within the project site or in the adjacent area. The impact analysis focuses on foreseeable changes to the baseline condition and compares those changes to the significance criteria. Potential impacts are analyzed the using information presented above regarding habitats present in the project site or adjacent area, and the potential occurrence of special-status species.

In the impact analysis, three principal factors were considered: (1) magnitude of the impact (e.g., substantial/not substantial); (2) uniqueness of the affected resource (i.e., rarity of the resource); and (3) susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource). The evaluation of the significance considered the interrelationship of these three factors. For example, a relatively small magnitude impact to a state or federally listed species would be considered significant if the species is exceptionally rare or believed to be highly susceptible to disturbance. Conversely, a plant community such as annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be necessary to result in a significant impact.

Impact Analysis

Impact 3.4-1: Implementation of the project could result in the loss of potential nesting habitat for special-status bird species and other sensitive and/or protected bird species. (*Less than Significant with Mitigation*) (Threshold #1)

Habitats within and adjacent to the project site may support nesting birds, including two special-status species, northern goshawk (*Accipiter gentilis*) and California spotted owl (*Strix occidentalis occidentalis*), as well as more common migratory birds and raptors. Based on the latest project design plans, of the approximately 80-acre site, development would occur on about 55 acres of the site, with approximately 25 acres left fully undisturbed. The development area would include those areas identified for project facilities and fuel treatment areas. Within the development area, direct ground disturbing impacts from road construction and construction of camp facilities would occur on approximately 7.45 acres of mixed conifer forest and approximately 0.87 acre of previously disturbed habitat (see **Figure 3.4-3**). Due to the recent



SOURCE: USDA, 2016; ESA, 2018

Yosemite Under Canvas Project
Figure 3.4-3
 Direct Impacts to Habitats

wildfire history of the project site, much of the mixed conifer forest community in the project site is disturbed and does not support plant densities and diversity typical of undisturbed examples of this community type. Live trees would only be removed where necessary for construction of the project facilities. Typically, tent placement would not require tree removal, although any trees deemed to be a hazard to project facilities, guests, or employees would be removed. Davey Tree Service conducted an arborist inspection of the project site between March 9, 2019 and April 30, 2019, and a total of 511 dead standing trees (also referred to as “snags”) within the development area were assessed and determined to pose a safety threat. These trees are designated for removal. Approximately 1,307 live trees within the developed portion of the site would remain, as would substantial quantities of live trees on the undeveloped portions of the site.

Construction of the project would result in the removal of trees and other vegetation which may serve as perching or nesting sites for special-status species and migratory birds, including raptors. Direct impacts on nesting raptors or migratory birds or their habitat such as removal of trees could result in substantial lowered reproductive success or habitat loss, thereby potentially adversely affecting local population levels. Additionally, human disturbances and noise from construction activities have the potential to cause nest abandonment and death of young or loss of reproductive success at active nests located near project activities. The raptor or bird species could be adversely affected if active nesting, roosting, or foraging sites are either removed or exposed to a substantial increase in noise or human presence during project activities. Nesting birds and raptors are protected under California Fish and Game Code Section 2080 (i.e., killing of a listed species), Sections 3503, 3503.5, and 3800 (i.e., take, possession, or destruction of birds, their nests or eggs), and Section 3513 of the MBTA (16 USC, Section 703 Supp. I 1989).

As discussed in Chapter 2, Project Description, the project will aim to retain large snags and decadent oaks as they provide valuable wildlife habitat. Snags larger than 26 inches in diameter and all living black oak trees greater 8 inches in diameter and 20 feet in height would be retained unless a determination is made by a certified arborist in consultation with the project biologist that removal is absolutely necessary to protect life and property. In addition, removal of black oaks greater than 15 inches in diameter within the fuel treatment areas or those black oaks marked for retention within the road right of way would be avoided and the road alignment adjusted to avoid individual black oak trees which meet the diameter retention threshold.

The impact would be less than significant if construction activities occur during the non-breeding season (i.e., from September 1 through January 31). During the non-breeding season, it is anticipated that any migratory birds or raptors using mature trees as perching sites for foraging would vacate the site upon the initiation of construction activities. However, construction activities conducted during the breeding season between February 1st and August 31st could affect the species adversely and result in a potentially significant impact. Disturbance of active nest sites which results in nest abandonment, loss of young, or reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates), or the direct removal of vegetation that supports nesting birds which result in killing of nestlings or fledgling bird species, or the loss of rookeries, would be considered a **potentially significant** impact. Implementation of **Mitigation Measure 3.4-1** would mitigate the impact to **less than significant**.

Mitigation Measure

Mitigation Measure 3.4-1: If vegetation removal begins during the nesting season (February 1 to September 15), a qualified biologist shall conduct a preconstruction survey for active nests in suitable nesting habitat within 500 feet of the construction area for nesting raptors and migratory birds (¼ mile for northern goshawk and California spotted owl). Areas off the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. The survey shall be conducted by a qualified biologist no more than seven days prior to the onset of construction. If no active nests are identified during the pre-construction survey, no further mitigation is necessary. If construction activities begin prior to February 1, it is assumed that no birds would nest in the project site during active construction activities and no pre-construction surveys are required. If at any time during the nesting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.

If active nests are found during the survey, the project proponent shall implement mitigation measures to ensure that the species would not be adversely affected, which would include establishing a no-work buffer zone as, approved by CDFW, around the active nest.

Measures shall include, but would not be limited to:

1. For trees with active nests, the project proponent shall conduct any tree removal activities required for project construction outside of the migratory bird breeding season (February 1 through September 15).
2. If active nests are found on or within 500 feet of the project site (¼ mile for northern goshawk and California spotted owl), then the project proponent shall establish no disturbance buffers for active nests of 250 feet for migratory bird species, 500 feet for non-listed raptor species, and ¼-mile for northern goshawk and California spotted owl, until the breeding season has ended, or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Depending on the conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. Nests that are inaccessible due to private property restrictions shall be monitored using binoculars from the nearest vantage point. Construction activities may be halted at any time if, in the professional opinion of the biologist, construction activities are affecting the breeding effort.
3. Depending on conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined on a case-by-case basis), the nest(s) shall be monitored by a qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the nest, the biologist shall immediately inform the construction manager and the project proponent shall notify CDFW. The construction manager shall stop construction activities within the buffer until the nest is no longer active. Completion of the nesting cycle shall be determined by a qualified biologist. If construction begins outside of the migratory bird breeding season (February 1

through September 15), then the project proponent is permitted to continue construction activities throughout the breeding season.

Impact 3.4-2: Implementation of the project could result in impacts to special-status bat species. (*Less than Significant with Mitigation*) (Threshold #1)

Forest habitats within the project site provide suitable roosting and foraging habitat for four special-status bat species, including pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis californicus*), and western red bat (*Lasiurus blossevillii*). These and other bat species could use trees with suitable cavities, crevices, exfoliating bark and/or bark fissures on and near the project site for roosting. The project could result in the removal of trees potentially used for roosting by special-status bats or other modifications to bat habitat. In addition, construction-related activities would temporarily elevate noise levels in areas on and surrounding the construction zone. Special-status bat species may be adversely affected if roosting sites are physically disturbed or are exposed to a substantial increase in noise or human presence during project activities. If construction activities occur during the bat breeding season (April 1st to August 31st), disturbance to roosting sites could have a significant effect on special-status bat species if active maternity roosts are present. Because project implementation could adversely affect these species, this impact would be considered **potentially significant**. Implementation of **Mitigation Measure 3.4-2** would reduce potential impacts to special-status bats to **less than significant**.

Mitigation Measure

Mitigation Measure 3.4-2: For construction activities expected to occur during the breeding season of special-status bat species (April 1 to August 31), a field survey shall be conducted by a qualified biologist to determine whether active roosts are present onsite or within 100 feet of the project boundaries. Areas off the project site that are inaccessible due to private property restrictions shall be surveyed using binoculars from the nearest vantage point. Field surveys shall be conducted early in the breeding season before any construction activities begin, when bats are establishing maternity roosts but before pregnant females give birth (April through early May). If no roosting bats are found, then no further mitigation is required. If roosting bats are found, then disturbance of the maternity roosts shall be avoided by halting construction until the end of the breeding season or a qualified bat biologist excludes the roosting bats in consultation with CDFW. If construction activities begin prior to April 1, it is assumed that no bats would roost in the project site during active construction activities and no pre-construction surveys are required. If at any time during the roosting season construction stops for a period of two weeks or longer, pre-construction surveys shall be conducted prior to construction resuming.

Impact 3.4-3: Implementation of the project would not result in a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*Less than Significant*) (Threshold #2)

The CDFW's *California Natural Communities List* (CDFW, 2019d) ranks vegetation alliances in California according to their degree of rarity imperilment (as measured by rarity, trends, and threats). All alliances are listed with a G (global) and S (state) rank. Alliances with state ranks of S1-S3 are considered of special concern by the CDFW, and all associations within them are also considered to be highly imperiled. The following vegetation alliances found within the project site are considered of special concern by CDFW and should therefore be considered a sensitive natural community under CEQA regulations:

- *Scirpus micorcarpus* (52.113.00) Small-fruited bulrush marsh

As designed, the project would avoid the seasonal wetland and seep containing this habitat and thus would not result in any direct or indirect impacts to this community. Therefore, there would be **no impact**.

Mitigation Measure

None required.

Impact 3.4-4: Construction of the project could result in a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with Mitigation*) (Threshold #3)

The project site supports wetlands and other waters of the U.S. or waters of the state subject to USACE jurisdiction under Section 404 of the CWA or protection under Porter-Cologne or California Fish and Game Code Section 1600, et seq. Section 404 of the CWA requires that a permit be obtained from the USACE prior to the discharge of dredged or fill materials into any "waters of the United States," which includes wetlands. Section 404 permits generally require mitigation to offset losses of these habitat types, in accordance with Executive Order 11990, which is intended to result in no net loss of wetland values or acres. These features may also be protected under state regulations, including the Porter-Cologne Act and California Fish and Game Code. As discussed above, the project, as designed, will not impact the seasonal wetland or seep on the project site. The project proposes to cross one of the ephemeral drainages with a clear span bridge which would avoid direct impacts to the feature. A culvert crossing over an ephemeral drainage is proposed in another area which would result in permanent impacts to the feature totaling approximately 0.002 acre. In addition, two culverts are proposed over the upland swale in the southwestern part of the project site which would result in permanent impacts to the feature totaling approximately 0.001 acre. The resulting loss of wetlands and other waters of the U.S. and state protected waters/wetlands is considered a **potentially significant** impacts. Implementation of **Mitigation Measure 3.4-3** would mitigate the impact to **less than significant**.

Mitigation Measure

Mitigation Measure 3.4-3: The project proponent shall demonstrate that there is no net loss of wetlands and other waters of the U.S. and state protected waters/wetlands. To ensure this, wetland mitigation shall be developed as a part of the permitting process as described above. Mitigation shall be provided prior to construction related impacts on the existing waters/wetlands. The exact mitigation ratio would be determined in consultation with the USACE, CDFW, and/or RWQCB based on the type and value of the waters/wetlands affected by the project, but the project shall compensate for impacted waters/wetlands at a ratio no less than 1:1. Compensation shall take the form of preservation or creation in accordance with USACE and/or CDFW mitigation requirements, as required under project permits. Preservation and creation would occur offsite through purchasing credits at a USACE, CDFW, and/or RWQCB-approved mitigation bank.

Impact 3.4-5: Implementation of the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant*) (Threshold #4)

The project site and surrounding area could potentially be used by a variety of wildlife species for dispersal and seasonal migration. However, there are no known wildlife movement corridors on or in the vicinity of the project site. The project site is located in an area of “connections with implementation flexibility” according to the CDFW’s Essential Habitat Connectivity natural landscape blocks (CDFW, 2020e). This category includes areas that have been identified as having connectivity importance, but have not been identified as channelized areas, species corridors, or habitat linkages at this time. Similarly, the site and the surrounding area were not identified as an area of Essential Habitat Connectivity in the County’s 2018 EIR for the General Plan Update Tuolumne County, 2018a). Further, the Tuolumne County Deer Herds and Migration Map prepared in support of the General Plan Update’s EIR shows the nearest deer migration route for the Yosemite Migrant Deer Herd as occurring about one mile west of the project site (Tuolumne County, 2018b).

A substantial portion of the site (25 acres) would remain wholly undeveloped and undisturbed, and that portion of the site that would be developed would be occupied by low density development, with less than 10 percent of the site directly impacted by roadways, tent sites, or other infrastructure. Accordingly, substantial portions of the site would remain undeveloped and would essentially continue to function as open space that could facilitate wildlife movement if it were to occur. In addition, similar habitat types are abundant in the local area, particularly on National Forest lands that adjoin the site to the west, south, and east.

Night lighting can disrupt the circadian rhythms of many wildlife species. The introduction of nighttime lighting at the project site could deter some wildlife species from using habitat directly surrounding the project site if lighting is overly bright or if spill-over is excessive. However, light spill-over from the project site would be minimal, as is discussed in Section 3.1, *Aesthetics*. Most lighting requirements would be met using low voltage solar systems. For instance, lighting for the lobby tent, common areas, pathways, and guest tents would be low voltage solar lighting. Each

tent would include a solar “porch” light on the exterior of the tent, located under the rain fly and pointed downwards. This would prevent upward and outward light spill from these lights, and these lights would be necessarily dim to ensure that guests would not be disturbed by excessive light. Each tent would also include five small ground-level and downward-directed solar pathway lights (each less than two volts). As stated in Chapter 2, *Project Description*, all lighting would meet International Dark-Sky Association (IDA) dark sky standards. IDA-compliant lighting is designed to decrease energy consumption, limit effects of lighting on human health, and limit disruptions to the ecosystem and wildlife (IDA, 2020). In accordance with IDA standards, onsite lighting would be limited to needed areas, would be limited to necessary brightness, would minimize blue light emissions including LED fixtures with color temperatures no greater than 3000 Kelvins, and would be down-shielded and pointed downwards. Based on these design features, the overall lighting on the site would be minimal, and potential impacts to wildlife resulting from nighttime lighting would not be substantial.

Based upon each of these considerations, together with the fact that there are no known wildlife corridors or migration routes through or in the vicinity of the project site, the project’s impacts to wildlife corridors and migration routes would be less than significant.

Impacts would therefore be **less than significant**.

Mitigation Measure

None required.

Impact 3.4-6: Implementation of the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*) (Threshold #5)

The protection of clusters of native trees and vegetation and outstanding individual native and non-native trees is encouraged in Tuolumne County General Plan Policy 16.A.6. In addition, the Tuolumne County Wildlife Handbook states that a project would have a significant impact on biological resources if it resulted in a net loss of the habitat value of a Second Priority Habitat. The mixed conifer forests on the project site are not considered a Second Priority Habitat by the Tuolumne County Wildlife Handbook, and there is no defined oak woodland habitat on the project site, although black oak trees occur sporadically throughout the project site. As prescribed by the Timber Harvest Plan, no oak trees greater than eight inches in diameter would be removed and oak clumps would be retained during the course of timber operations and subsequent development activities. Therefore, there would be **no impact** to priority habitats or protected trees.

The zoning designation for the western half of the project site is Commercial Recreation (C-K), and the zoning for the eastern half is Commercial Recreation/Open Space (C-K/O-1). As shown in Figures 2-2 and 2-3 in Chapter 3, *Project Description*, the bulk of the project’s development would occur on the western C-K portion of the site, though some roadways, tent sites, and the leach field would also be constructed on the C-K/O-1 portion of the site. As defined in the County’s Zoning Code, the O-1 district is intended to preserve and protect areas of valuable

wildlife habitat consistent with the wildlife policies of the General Plan. Specified uses are allowed within the O-1 district with issuance of a use permit if those uses do not conflict with the wildlife habitat values of the property. Those uses include general recreation with no buildings, vegetation removal, placement of utilities and sewage systems, and roads and bridges where access through another district is not feasible (County Code Chapter 17.15). In the case of the proposed project, no buildings are proposed in the C-K/O-1 portion of the site; just non-permanent tent decks and a mobile bathroom unit. Ingress and egress to and from the site running solely through the C-K portion of the site is not feasible, since fire department requirements call for two points of ingress and egress to and from the project site, so at least one point of access would necessarily need to pass through the C-K/O-1 district. Based on these considerations, issuance of a use permit for development within the C-K/O-1 district would be allowed if it could be shown that the use would not conflict with the wildlife habitat values of the parcel.

As discussed previously under Impacts 3.4-1 through 3.4-4, potentially valuable wildlife habitat on the project site includes wetlands, ephemeral drainages, nesting bird habitat, and potential bat roosting habitat. Each of these features is present on the C-K/O-1 portion of the project site, and the project would be in conflict with the requirements of the O-1 use if it were to significantly impact those features. However, as noted previously under the discussions for Impacts 3.4-1 through 3.4-4, all project-related impacts to these resources would be less than significant: (1) the seasonal wetland and the seep on the site would be wholly avoided; (2) the ephemeral drainages on the site would also be avoided, with the exception of 0.003 acre of impacts resulting from installation of culverted crossings at three locations, but those impacts would be mitigated through preservation or creation of on-site wetlands at a ratio of 1:1 or more; (3) impacts to nesting bird and bat roosting habitat would be avoided through pre-construction surveys and avoidance of nests and roosting sites if any are found. Based on these considerations, the potentially valuable wildlife habitat on the site would not be significantly affected, and the impact would therefore be **less than significant**.

Mitigation Measure

None required.

Impact 3.4-7: Implementation of the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (*No Impact*) (Threshold #6)

The project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, there would be **no impact**.

Mitigation Measure

None required.

Cumulative Impacts

The impact of the project on biological resources must be analyzed in conjunction with past, present, and future development projects which, combined with the project, could result in cumulative impacts. The geographic context for the cumulative analysis of biological resources is defined under each cumulative impact topic. As the project would have no conflict with any local policies or ordinances protecting biological resources, nor would it conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan, these issues are not discussed further under cumulative impacts.

Impact 3.4-8: Implementation of the project, in conjunction with other development, could contribute to the cumulative harm to, or loss of nesting habitat for, special-status bird species and other sensitive and/or protected bird species. (*Less than Significant with Mitigation*) (Threshold #1)

The cumulative context for nesting bird habitat includes Tuolumne County. Historic and ongoing loss of natural habitats suitable for nesting birds, including special-status species such as northern goshawk and California spotted owl, as well as other sensitive and/or protected bird species and more common migratory birds and raptors, has occurred as natural habitats have been converted to rural, urban, and agricultural development. Future development within the County is expected to continue. Projects within Tuolumne County would be required to comply with local ordinances and policies, in addition to CESA, FESA, CWA, Fish and Game Code of California, and other relevant regulations permits and requirements. Nevertheless, the loss of natural habitats for special-status bird species, other raptors, and nesting birds within Tuolumne County is a significant cumulative impact.

Development of the project could directly affect special-status and protected bird species and their habitat which would result in a considerable contribution to the cumulative loss within Tuolumne County; therefore, this is considered a potentially **significant** cumulative impact.

Mitigation Measure

Mitigation Measure: Implement Mitigation Measure 3.4-1.

Impact 3.4-9: Implementation of the project, in combination with other cumulative development, could contribute to the cumulative loss of habitat, or impacts to bat species. (*Less than Significant with Mitigation*) (Threshold #1)

The context for cumulative impacts to bat species is Tuolumne County. Roosting habitat for bat species has been lost due to natural habitats being converted to rural, urban, and agricultural uses. As discussed in Impact 3.4-2, the project could reduce tree-roosting habitat within the project site. Removal of potential roosting trees within the project site would be considered a considerable contribution to the cumulative impact of diminishment of roosting habitat available for bat species in Tuolumne County. As a result, the loss of roosting habitat for bat species is a potentially **significant** cumulative impact.

Mitigation Measure

Mitigation Measure: Implement Mitigation Measure 3.4-2.

Impact 3.4-10: Implementation of the project, in combination with other cumulative development, could contribute to the cumulative loss of state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with Mitigation*) (Threshold #3)

The context for cumulative impacts to state or federally protected wetlands/waters is Tuolumne County. As a result of human settlement and development, wetland and other aquatic habitats were cleared and developed for farming, lumber, flood control and urban development and thus have been reduced substantially from their native range. It is likely that future development would further continue to affect these sensitive habitats. Due to the significant decline in wetland and sensitive aquatic habitats in Tuolumne County, any loss of these sensitive habitat types would represent a considerable contribution to the loss of state or federally protected wetlands/water within Tuolumne County. Therefore, this is considered a potentially **significant** cumulative impact.

Mitigation Measure

Mitigation Measure: Implement Mitigation Measure 3.4-3.

Impact 3.4-11: Implementation of the project, in combination with other cumulative development, would not contribute to the cumulative interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant*) (Threshold #4)

The context for cumulative impacts to migratory wildlife is the central Sierra Nevada region. As discussed in Impact 3.4-5, while some local disturbance would occur in the project site as a result of project construction, these activities would be limited to a relatively small area in the context of the larger central Sierra Nevada area. There are no known wildlife corridors present on the project site or within the project vicinity. Based on the comparatively low-density, low-impact, and seasonal nature of the project, together with the fact that a substantial portion of the site would remain undisturbed, the proposed project is not expected to interfere with any movement corridors or the movement of any wildlife or native resident or migratory fish species through the area. In addition, similar habitat types are abundant in the local area, particularly on the National Forest lands to the west, south, and east of the site. With respect to more localized impacts, the project has been designed to minimize lighting on the site and the adverse effects presented by excessive lighting. Based upon each of these considerations, the project's contribution to cumulative impacts related to migratory wildlife would be **less than significant**.

Mitigation Measure

None required.

3.4.5 References

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors, 2012. *The Jepson manual: Vascular plants of California, second edition*. University of California Press, Berkeley, CA.
- Calflora, 2020. Information on California plants for education, research and conservation [web application]. Berkeley, California: The Calflora Database [a non-profit organization]. Available: <http://www.calflora.org/>.
- California Department of Fish and Wildlife (CDFW), 2020a. *California Natural Diversity Database (CNDDDB) Rarefind 5 computer program (v5.2.14)*. California Department of Fish and Wildlife Biogeographic Data Branch. Sacramento, CA.
- , 2020b. *Special Vascular Plants, Bryophytes, and Lichens List*. California Department of Fish and Wildlife, Natural Diversity Database. Sacramento, CA. Quarterly publication. 140 pp. Data dated January 2020.
- , 2020c. *Special Animals List*. California Department of Fish and Wildlife, Natural Diversity Database. Sacramento, CA. Periodic publication. 67 pp. Data dated August 2019.
- , 2020d. *California Natural Community List*. Vegetation Classification and Mapping Program. Sacramento, CA. Available: <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List>.
- , 2020e. California Habitat Connectivity Projects: BIOS Habitat Connectivity Viewer. Available: <https://www.wildlife.ca.gov/Data/BIOS>.
- California Native Plant Society (CNPS), 2020. *Inventory of Rare and Endangered Plants* (online edition, v8.03 0.39). California Native Plant Society. Sacramento, CA.
- Environmental Laboratory, 1987. *Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1)*. U.S. Army Corps of Engineers Waterways Experimental Station. Vicksburg, Mississippi.
- Environmental Science Associates (ESA), 2019. *Yosemite Under Canvas Project Aquatic Resources Delineation Report*. February 2019.
- Federal Geographic Data Committee, 2013. *Classification of Wetlands and Deepwater Habitats of the United States. FGDC-STD-004-2013. Second Edition*. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
- Google Earth, 2020.

- International Dark Sky Association (IDA), 2020. *Outdoor Lighting Basics*. Available: <https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/>. Accessed May 5, 2020.
- Jepson Flora Project (eds.), 2020. *Jepson eFlora*. <http://ucjeps.berkeley.edu/eflora/>.
- Mayer, K. E., and W.F. Laudenslayer, Jr., 1988. *A Guide to Wildlife Habitats of California*. State of California Resources Agency, California Department of Fish and Game. Sacramento, CA.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens, 2009. *A Manual of California Vegetation*. California. 2nd Edition. Native Plant Society Press. Sacramento, CA.
- Tuolumne County, 1987. *Wildlife Handbook – Tuolumne County Wildlife Inventory and Evaluation Project*.
- , 2018a. *Draft Environmental Impact Report for the Tuolumne County General Plan Update Project, Exhibit 3.4-4: Essential Connectivity Areas*. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11301/Section-34>. Accessed May 6, 2020.
- , 2018b. *Tuolumne County Deer Herds & Migration Routes*. Available: https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11603/GeneralPlanEIR_Deer. Accessed May 6, 2020.
- U.S. Army Corps of Engineers (USACE), 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) ERDC/EL TR-10-3*. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS), 2020a. *List of Federal Endangered and Threatened Species that may occur in the Project Area*. Sacramento Fish and Wildlife Office, Endangered Species Division.
- , 2020b. Critical Habitat for Threatened and Endangered Species. Critical Habitat Portal Online Mapper. Available: <http://ecos.fws.gov/crithab/>.
- , 2020c. National Wetlands Inventory. Available: <http://fws.gov/wetlands/>.

3.5 Hydrology and Water Quality/Utilities and Service Systems

3.5.1 Introduction

This section describes the existing hydrology and water quality conditions, and utilities and service systems at the project site, explains the existing regulatory framework governing these topics, and discusses potential construction-related and operational impacts of the proposed project. Mitigation measures are provided to avoid or reduce significant impacts, as appropriate. The proposed project would not use municipal water supplies, wastewater facilities, or natural gas. Accordingly, these topics are not discussed in this section.

To inform the design of the proposed project and support this DEIR, the site-specific investigations listed below were conducted. Copies of each report are provided in Appendix G.

- Geotechnical conditions: Krazan & Associates, 2019. *Geotechnical Engineering Investigation, Proposed Yosemite under Canvas Project, South of SR-120 at Hardin Flat Road, Tuolumne County, California*. May 29.
- Water supply: Water Resources Associates, Inc., 2020, *Hydrogeologic Report, Under Canvas – Groveland, California*. February 12.
- Drainage: Dax Consulting, 2019a. *Hydrologic and Hydraulic Drainage Report for Under Canvas, Tuolumne County, CA*. March.
- Erosion: Dax Consulting, 2019b. *Grading Plan, Erosion Control Plan, Utility Plan, Horizontal Control Plan*. December 16.
- Wastewater: Don Meyers, REHS, 2019a. *Under Canvas Commercial Wastewater System*. January 2.
- Wastewater: Don Meyers, REHS, 2019b. *Under Canvas Commercial Wastewater System Plans*. July 16.
- Wastewater: Don Meyers, REHS, 2020. *Estimated Maximum Daily Wastewater Flow Rates*. February 3.

Comments received during the scoping process included concerns regarding impacts to groundwater supply of existing water supply wells in the vicinity of the project site, proper disposal of sewage in leach fields, and whether natural gas would be provided at the project site.

3.5.2 Environmental Setting

Hydrology and Water Quality

Topography and Drainage

The project site consists of approximately 80.1 acres in an area with gently to moderately sloping terrain (Krazan, 2019) (see Figure 2-3). The ground surface is covered with a light to heavy growth of native grass and trees, along with a significant amount of dead trees and related limbs laying on the ground. No landslide activity was observed and the natural slopes are generally

flatter than 3H:1V (horizontal to vertical). Ground surface elevations range from 4,020 feet above mean sea level (amsl) at the southwest corner of the project site to 3,675 feet amsl at the eastern corner of the project site (Dax, 2019a; b).

Slopes are generally to the northeast and east. One drainage begins in the southwest corner of the project site and flows to the northeast (WRA, 2020). This ephemeral stream may originate onsite, perhaps as underflow from higher in the watershed, or from an intermittent spring.¹ Another ephemeral drainage begins offsite entering the site at the northwest corner and flowing east and southeast. These two drainages join in the general center of the site and continue flowing to the east and offsite. Surface water flow occurs as sheet flow with some water infiltrating into the subsurface and some flow concentrating into the drainages.

Surface Water Resources

The project site is located within the South Fork Tuolumne River watershed, which comprises 57,855 acres (WRA, 2020). The South Fork Tuolumne watershed starts in the high country of Yosemite National Park above 8,500 feet and terminates at the confluence of the South Fork with the Middle Tuolumne River approximately five miles downstream of the proposed project. The South Fork Tuolumne River lies approximately 0.6 miles to the south of the project site.

The estimated size of the local recharge watershed for the project site is estimated at approximately 462 acres. The average annual precipitation at the project site is estimated to range between 35 to 40 inches, however the watershed has extensive areas above snowline, meaning that rainfall is not the only source of runoff from the watershed.

Flooding and Dam Failure

As described in the Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan (Tuolumne County, 2018), the physical geography of the County impacts and limits flooding potential. The overall slope of the watersheds are relatively steep and the rivers and streams move runoff away quickly and therefore very little flood plain has been formed. The Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan lists the project area as Zone X, which is for areas of minimal to no flood hazard.

Dam failure, which is the collapse or failure of an impoundment that causes significant downstream flooding, is not a concern for the project area. Although Tuolumne County has multiple large and small dams, only the O'Shaughnessy Dam in Yosemite National Park poses a risk for significant flooding (Tuolumne County, 2018). However, the dam is located on the Tuolumne River and the proposed project is located near the South Fork Tuolumne River and inundation would not reach the project area.

Surface Water Quality

Surface water quality in the region is generally considered very good (Kennedy-Jenks, 2013). For example, most of the water from the Tuolumne River is usable for human consumption with

¹ Intermittent streams and springs do not have continuous flowing water year-round and are not relatively permanent waters. Ephemeral streams have less flow than intermittent streams, are typically shallow, and have flowing water for brief periods in response to rainfall.

disinfection alone, although additional treatment is required by law. The project site does not have any year-round streams. The two drainages on the site have ephemeral flow that only occurs for a short time period during and after storm events. The project site has never had any commercial or industrial uses that would have used chemicals. Therefore, the quality of surface water, when present, would consist of rainwater with some sediment.

Groundwater Resources

To evaluate groundwater resources at the project site, a hydrogeological investigation was conducted that included the installation, aquifer pump testing, and chemical testing of three onsite groundwater wells. The onsite Wells 1, 2, and 3 are shown on Figure 2-3 (see also WRA, 2020 in Appendix G of this EIR). Groundwater at the site occurs in a fractured bedrock aquifer and is recharged from rainfall and snowmelt, runoff from offsite upslope areas, and underflow from upgradient offsite areas. The volume of recharge within the local drainage basin is estimated to range from 25 to 80 acre-feet per year. Because the aquifer occurs in fractured bedrock, the presence and flow of groundwater and the area affected by pumping follows the pattern of bedrock fractures, as opposed to expanding radially outward in all directions as with a sand aquifer. Consequently, the location of the wells was determined based on an onsite fracture pattern study to place wells in the optimal locations. Separate ten-day-long pump tests were conducted in Wells 1 and 2, and all three wells were monitored for their response to pumping. Pressurized (artesian) groundwater conditions were seen in all onsite wells, as indicated by the static water depths being shallower than the shallowest first-encountered water depth. Well construction details and aquifer pumping test results are summarized in **Table 3.5-1** below.

**TABLE 3.5-1
 WELL CONSTRUCTION AND AQUIFER TEST DETAILS**

	W-1	W-2	W-3
Total Boring Depth	1,000	980	1,000
Total Well Depth	1,000	600	1,000
Depth to Fractured Bedrock Intervals that Produce Groundwater	115-116 195-196 305-306	119-120 132-134 138-139 159-182 182-183 295-266	119-120 208-209 385-395 535-536 580-581 664-668
Surface Conductor Casing	121	113	119
Screen Interval Depth	No screen	40-280	No screen
Pumping rate in gallons per minute	40	40	Not tested
Shallowest Encountered Water Depth	115	119	119
Static Water Depth	12.5	84	46.2
Maximum Drawdown	28.6	18.2	Not tested

NOTES:
 All depths in feet below ground surface
 Drawdowns measured in feet

SOURCE: WRA, 2020

Constant rate aquifer pump tests lasting ten days each were conducted on one well at a time to avoid potential interference between the wells. Water levels were monitored in all three wells during each pump test. Each well was pumped at a rate of 40 gallons per minute (gpm), which is twice the estimated pumping rate anticipated to support the proposed project.

During the aquifer pump tests, the water level in Well 3 decreased 0.88 feet during the Well 1 pump test and 0.97 feet during the Well 2 pump test. Well 3 is located about 1,256 feet from Well 1 and about 660 feet from Well 2. The negligible effect (less than one-foot drawdown) on Well 3 indicates that the effect of pumping Wells 1 and 2 is largely limited to the project site.

Groundwater Quality

Water quality within Tuolumne County is regulated by the State Regional Water Quality Control Board's Central Valley Region 5. Except for areas of localized groundwater contamination, groundwater underlying the County has generally been found to be good. Groundwater in the County typically contains naturally occurring constituents of iron and manganese (Tuolumne County, 2018).

Groundwater from Wells 1 and 2 was sampled and analyzed for Title 22 constituents, which are used to determine suitability as drinking water (WRA, 2020). Title 22 constituents include general inorganics (e.g., sodium potassium, calcium, magnesium, chloride, sulfate, nitrate), volatile organic compounds, semi-volatile organic compounds, metals (arsenic, antimony, barium, beryllium, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc), organochloride pesticides (including DDT), chlorinated herbicides, gross alpha activity (radioactivity from decaying uranium), and other chemicals. The results indicate groundwater at the site is classified as a calcium bicarbonate water, the water quality is good with all chemical concentrations within state of California drinking water standards.

Utilities and Service Systems

Water Supply

There are no municipal water supplies in the immediate area. As such, the project's water supply would be provided to the project site by Wells 1 and 2, with Well 3 being capped but retained for backup purposes. The volume and water quality of groundwater from those wells were discussed above, which noted that the wells have more than sufficient capacity to supply the proposed project and that the water quality is within drinking water standards.

Wastewater, Treatment, and Disposal

The project site is currently undeveloped and does not contain any wastewater treatment or disposal facilities, and there are no municipal wastewater systems in the vicinity of the site. Therefore, wastewater would be treated onsite through the use of a septic tanks for storage and settling, and two leach field for disposal. To inform the design of the wastewater treatment system, a registered environmental health specialist investigated the site soil conditions for leach field suitability and prepared wastewater treatment plans (Don Myers, 2019a; b). The soil profile examination revealed soils suitable for a leach system to at least 13 feet of depth, which is

sufficient to comply with the Tuolumne County Code Chapter 13.08 requirements summarized below in Section 3.5.3, *Regulatory Framework, Local*.

Stormwater

An ephemeral drainage system occurs within the project site, as previously described. The onsite ephemeral drainages are eventually tributary to the South Fork Tuolumne River. To inform the project design, a drainage study was conducted to estimate hydrologic flow quantities and provide a basis for the design of unpaved roadways and the culverts that drain beneath the roadways (Dax, 2019a). For much of the project site, the drainage areas largely sheet flow without concentrating and there is no defined outlet point. In other areas, the flow was calculated for drainage into a channel at a defined point. Between these two general scenarios, the estimated flow rate for subareas within the entire project area were calculated for 10, 25, and 100-year storm events. A 10-year storm is the maximum 24-hour precipitation event with a probable recurrence interval of once in 10 years, as defined by the National Weather Service. The flow rates were estimated to range from 2.86 to 11.98 cubic feet per second (cfs) during a 10-year storm, 3.40 to 14.22 cfs during a 25-year storm, and 4.11 to 17.22 cfs during a 100-year storm.

Solid Waste

The Moore Brothers Scavenger Company, Inc., provides solid waste service for southern Tuolumne County, including the project site (Ascent Environmental, 2018). Moore Brothers Scavenger Company is located in Big Oak Flat and services include garbage collection, drop-off recycling, roll off container rentals, and dumpster rentals. The nearest transfer station to the project site, where it is anticipated that waste generated would be transported to, is the Big Oak Flat Transfer Station located in Groveland. The Big Oak Flat Transfer Station is approximately 10 acres and has a maximum capacity of 99 tons (CalRecycle, 2020a). Solid waste would then be transferred to the Highway 59 Disposal Site, located at 7040 North Highway 59 in Merced (Ascent Environmental, 2018). The Highway 59 Disposal Site is well below its maximum permitted capacity of 30,012,352 cubic yards, with 28,025,334 cubic yards remaining capacity (CalRecycle, 2020b). The landfill is not expected to reach its full capacity until at least 2030.

Energy

Electricity at the project site would be provided by Pacific Gas and Electric (PG&E) (Ascent, 2018). PG&E is a publicly-owned utility which generates and distributes electricity. Electricity is produced through hydropower generation, as well as through generation via renewable energy sources, nuclear, hydro, and natural gas (PG&E, 2018). There is currently no development on the project site, so there is no existing electrical service physically on the site.

3.5.3 Regulatory Framework

Development within the project site boundaries must comply with federal, state, regional, and local regulations. This section discusses these requirements to the extent that they would affect the way development occurs with the proposed project.

Federal

Clean Water Act

Under the Federal Water Pollution Control Act, better known as the Clean Water Act (CWA), the U.S. Environmental Protection Agency (USEPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters by implementing water quality regulations. Multiple CWA sections apply to activities near or within surface water or groundwater.

The CWA regulates the discharge of pollutants into United States waters and establishes water surface quality standards in order to maintain the chemical, physical, and biological health of national water systems. Under the CWA, pollutants may not be discharged from a point source into surface waters unless permitted by the NPDES under the regulation of the USEPA.

National Pollutant Discharge Elimination System

NPDES is a permit program which establishes limits on municipal, industrial, stormwater, and agricultural pollutant discharge into United States waters, effectively converting the standards of the CWA into a framework specific to each pollutant point source. These permits establish acceptable levels of pollutants within a discharge source, and may include structural, educational, regulatory, or policy-based best management practices (BMPs) for controlling those pollutant levels. For the Under Canvas project, coverage under a construction NPDES permit, as described further below.

Safe Water Drinking Act

Title XIV of the Public Health Service Act, the Safe Drinking Water Act (SDWA), protects the quality of potential or designed public drinking water supplies. The Act, passed in 1974, allows the USEPA to establish minimum standards to protect tap water from contaminants, and for state governments to protect underground drinking water sources. SDWA administers two types of standards: national primary drinking water regulations (NPDWR, or primary standard), legally-enforceable standards which limit the amount of specific contaminants which can impact public health by establishing maximum contaminant levels (MCLs); and treatment technique rules, national secondary drinking water regulations (NSDWR, or secondary standard). MCLs are regulated through the maximum contaminant level goal, which is the maximum level of contaminant in drinking water at which no known or anticipated unfavorable health effects would occur, with an adequate margin of safety.

Federal Emergency Management Agency

FEMA is the federal agency tasked with preparing for, protecting against, responding to, recovering from, and mitigating hazards and natural disasters, including flooding. FEMA administers the National Flood Insurance Program (NFIP) and delineates areas subject to flood hazards on FIRMs for each community participating in the NFIP. The FIRMs show the areas subject to inundation by a flood that has a one percent chance or greater of being equaled or exceeded in any given year. This type of flood is referred to as the 100-year or base flood. Areas on FIRMs are divided into geographic areas, or zones, that FEMA has defined according to varying levels of flood risk.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) is California's statutory authority for the protection of water quality. Under this act, the State must adopt water quality policies, plans, and objectives that protect the State's waters. The act sets forth the obligations of the State Water Resources Control Board (SWRCB) and RWQCBs pertaining to the adoption of Basin Plans and establishment of water quality objectives. Unlike the federal CWA, which regulates only surface water, the Porter-Cologne Act regulates both surface water and groundwater. The Porter-Cologne Water Quality Act is promulgated in the California Code of Regulations Title 22, which includes drinking water treatment requirements. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, with much of its daily implementation authority delegated to the nine RWQCBs. In general, the State Water Board manages both water rights and statewide regulation of water quality, while the regional water boards focus exclusively on water quality in their regions. The project area lies within the jurisdiction of the Central Valley RWQCB, Region 5S.

Anti-Degradation Policy

The SWRCB's Anti-Degradation Policy, otherwise known as Resolution No. 68-16, sets specific restrictions for surface and groundwater that have higher than the required quality in order to avoid degradation of those water bodies. Requirements of this policy must be included within all Basin Plans throughout California (discussed below). Under this policy, actions that would lower the water quality in designated water bodies would only be allowed if the action would provide a maximum benefit to the people of California, if it will not unreasonably affect beneficial uses, and if it will not lower water quality below applicable standards.

NPDES Construction General Permit

Construction associated with the proposed project would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the U.S. The proposed project would, therefore, be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the

receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards;
- Good site management “housekeeping;”
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit.

The SWPPP must be prepared before the construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

For the proposed project, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board (RWQCB), which administers the stormwater permitting program. Dischargers are required to electronically submit a notice of intent (NOI) and permit registration documents (PRDs) in order to obtain coverage under this Construction General Permit. Dischargers are responsible for notifying the RWQCBs of violations or incidents of non-compliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer and implementation of the

SWPPP must be overseen by a State Qualified SWPPP Practitioner. A Legally Responsible Person, who is legally authorized to sign and certify PRDs, is responsible for obtaining coverage under the permit.

California Safe Drinking Water Act

Implementation of the federal Safe Drinking Water Act within California is overseen by the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW), which is also responsible for implementation of California's state mandates pertaining to drinking water. These mandates are established within the California Safe Drinking Water Act (CA SDWA) adopted in 1976, which was meant to ensure that public water systems supply water that is "pure, wholesome, and potable." Standards for ensuring that drinking water supplies meet these requirements codify MCLs established by the California Department of Health Services within CCR Title 22, Sections 64431-64501. These MCLs under the CA SDWA meet at least national primary standards under the SDWA.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014, effective January 1, 2015, authorizes local agencies to manage groundwater in a sustainable manner and allows limited state intervention when necessary to protect groundwater resources. The SGMA defined sustainable groundwater management; established a framework for local agencies to develop plans and implement strategies to sustainably manage groundwater resources; prioritized the basins with the greatest problems (ranked as high and medium priority); and set a 20-year timeline for implementation. The project site is not located within a DWR-designated basin. Therefore, this Act does not apply to the proposed project.

Clean Energy and Pollution Reduction Act

The Clean Energy and Pollution Reduction Act (SB-350), passed in 2015, established new clean energy, clean air, and greenhouse gas (GHG) reduction goals through 2030 and beyond. The purpose of SB 350 is to help California meet its goal of reducing GHG emissions to 80 percent below 1990 levels by 2050, with the aim of reducing GHG emissions to 40 percent below 1990 levels by 2030. This 2030 reduction target addresses energy efficiency standards, the use of resources eligible under the Renewables Portfolio Standard (RPS) (e.g., solar, wind, biomass, geothermal, and other resources). In achieving these goals, large utilities are required to implement integrated resource plans (IRPs) that specify how the utilities will reduce GHG emissions and increase the delivery of clean energy resources while still meeting the needs of their customer bases.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen) represents Part 11 of The California Building Standards Code under Title 24 of the California Code of Regulations. CALGreen is intended to promote sustainable construction practices by reducing negative impacts associated with construction, applying design and methodology to encourage positive environmental impacts. The code is the state's first green building code, and applies to "the planning design,

operation, construction, use, and occupancy of every newly-constructed building or structure on a statewide basis unless otherwise indicated.”

Regional and Local

Central Valley Region Water Quality Control Plan (Basin Plan)

The project site waters are under the jurisdiction of the Central Valley RWQCB, which established regulatory standards and objectives for water quality in the region in the *Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, the Sacramento River Basin and the San Joaquin River Basin*, commonly referred to as the Basin Plan. The Basin Plan identifies existing and potential beneficial uses for surface water and groundwater, and provides numerical and narrative water quality objectives designed to protect those uses. The preparation and adoption of water quality control plans is required by the California Water Code (Section 13240) and supported by the federal CWA. Because beneficial uses, together with their corresponding water quality objectives, can be defined pursuant to federal regulations as water quality standards, the Basin Plan is a regulatory reference for meeting the state and federal requirements for water quality control, and is the basis for standards outlined in discharge permits. For the area of the project site, surface water beneficial uses for the Tuolumne River are listed below:

- Municipal and Domestic Supply (MUN) - Uses of water for community, military, or individual water supply systems, including, but not limited to, drinking water supply.
- Agricultural Supply (AGR) - Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
- Hydropower Generation (POW) - Uses of water for hydropower generation.
- Water Contact Recreation (REC-1) - Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.
- Non-Contact Water Recreation (REC-2) - Uses of water for recreational activities involving proximity to water, but where there is generally no body contact with water, nor any likelihood of ingestion of water. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
- Warm Freshwater Habitat (WARM) - Uses of water that support warm water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates. WARM includes support for reproduction and early development of warm water fish.
- Cold Freshwater Habitat (COLD) - Uses of water that support cold water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
- Wildlife Habitat (WILD) - Uses of water that support terrestrial or wetland ecosystems, including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands,

vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Unless otherwise designated, all groundwater in the Region is considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply (MUN) and agricultural supply (AGR), listed above, and the following additional beneficial uses:

- Industrial Service Supply (IND) - Uses of water for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.
- Industrial Process Supply (PRO) -Uses of water for industrial activities that depend primarily on water quality.

Tuolumne County Code Chapter 13.08, On-Site Sewage Treatment and Disposal Code

Chapter 13.08 provides the code requirements for onsite sewage treatment and disposal systems, including septic tanks and leach fields. The code describes the required permits, sizing and design standards, required inspections, and maintenance requirements. Certain relevant minimum criteria are summarized below. Chapter 13.08 includes more details than the items listed below. The REHS and the consultant designing and building the system are required to comply with all code requirements.

- All onsite treatment and disposal systems must be permitted with and inspected by the Tuolumne County Environmental Health Department (EHD).
- All onsite treatment and disposal systems must be designed and constructed by a registered environmental health specialist (REHS) and a qualified engineering consultant.
- Septic tanks must be at least 50 feet from private water wells, lakes, reservoirs, perennial streams, and surface water supplies used for public water supply; and at least 150 feet from public water wells.
- Leach fields must be at least 100 feet from private water wells and perennial streams; 200 to 400 feet from lakes, reservoirs, and surface water supplies used for public water supply; and at least 150 feet from public water wells.
- Field work on percolation tests and soil profiles must be done under the supervision of the engineering consultant and be available for inspection by the EHD. The consultant shall locate, design, and supervise installation of the system. The consultant assumes responsibility for the work performed.
- Information to be submitted by the consultant for onsite sewage disposal and treatment systems includes a plot plan, grading plan, description of groundwater and soils; description of monitoring devices, system operation and function; and a site evaluation.
- The soil and site criteria minimums include a minimum of 5 feet of permeable soil below the bottom of a leach trench or bed to bedrock of the highest anticipated depth to groundwater, a ground slope of not more than 30 percent, and application rates determined by percolation tests that consider the soil type and percolation rate.

- In commercial or industrial premises when liquid wastes contain excessive amounts of grease, garbage, flammable wastes, sand, or other ingredients which may affect the operation of an OWTS or private sewage disposal system, an approved interceptor or trap for such wastes shall be installed.

Tuolumne County Ordinance Code: Section 11.12.010 – Geometrics and Roadbed Design

Section 11.12.010, *Geometrics and Roadbed Design*, describes the minimum standards for geometrics and roadbed design for proposed improvements to be submitted to the County for review and approval. The standards include width of roads and shoulders, turnouts, turning bulbs, turnarounds, road curves and crowns, side and back slope ratios, ditch depths and slopes, stopping sight distances, alignments, drainage, and structural design standards and materials.

Tuolumne County Ordinance Code: Chapter 11.04.050 – Plan Details

Section 11.04.050, *Plan Details*, describes the minimum requirements for road improvement plans to be submitted to the County for review and approval, which describe the requirements for title sheets, cross sections, layout sheets, plan and profile sheets, drainage study and contour sheets, and construction detail sheets.

For drainage (Section 11.04.050E), a drainage study is required that contours of the subdivision unit and immediate vicinity sufficient to indicate the perimeter of the upland areas to be drained by each structure and associated outlet protection. Section 11.04.010 requires the submittal of computations with improvement plans at the time such plans are submitted for approval. It is required that the consulting engineer prepare and submit calculations to support the design of the drainage structures and that such be shown on the drainage study and contour sheet. The basis for culvert design shall be “Design Flood” estimates from the California culvert practices which employ the general rules:

1. That a culvert pass a ten year flood without static head on the crown of the culvert at its entrance:
2. That design of the culvert and appurtenances be balanced to avoid serious damage from head and velocity obtained in a one hundred-year flood. Bridges shall be designed for the one-hundred-year flood. Minimum diameter for pipes shall be eighteen inches in diameter

Tuolumne County General Plan

Hydrology, water quality, utilities, and service systems are addressed in several sections of the Tuolumne County General Plan. Utilities and Service Systems are addressed in the Utilities Element and Hydrology is addressed in the Water Supply Element. Applicable policies from each of these elements are listed below.

Utilities Element

Policy 3.A.5: Protect the geologic landscape for water quality and quantity and the functionality of the geology for water recharge from new development.

Policy 3.B.1: Require that development is consistent with the applicable water purveyor standards and specifications, including as applicable, the proper design and sizing of water

distribution lines, storage tanks, and other aspects of the water infrastructure system both on and off the site of development.

Policy 3.B.2: Consider whether the water system proposed to serve a new development has a reliable source of water, sized to serve their existing and future customer's' foreseeable demands. Projects shall only be approved where the water supply system has reliable sources of water capable of meeting present and future demands.

Policy 3.B.3: Encourage the logical extension of public water services infrastructure during review of new land development projects to provide a reliable and adequate distribution system to meet the future needs of the water purveyor.

Policy 3.E.4: Require development to connect to a public sewer system if it is reasonably available.

Policy 3.F.1: Require proposed solid waste facilities and all other new development to comply with the Tuolumne County Integrated Waste Management Plan and all adopted elements thereof.

Water Supply Element

Policy 14.A.5: Manage groundwater resources consistent with the requirements of the Sustainable Groundwater Management Act, in response to the probability that the State will extend regulations to the County of Tuolumne.

Policy 14.A.7: Encourage the beneficial capture and utilization of stormwater to promote healthy watersheds, fire-safe landscapes, and groundwater recharge.

Policy 14.B.2: Increase water conservation efforts to maximize water use efficiency within Tuolumne County through conservation, recycling and education.

Policy 14.C.1: Protect the quality of the County's water resources by supporting the efforts of local districts to maintain infrastructure and cross-connect sewer systems and ensuring Tuolumne County's development standards are adequate to protect surface and groundwater resources from contamination.

Policy 14.C.8: Encourage water resources to be protected from pollution, conserved, and recycled whenever possible to provide for continued economic, community, and social growth.

3.5.4 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, an impact to hydrology, water quality, utilities and service systems would be considered significant if implementation of the project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- 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:
 1. result in substantial erosion or siltation on- or off-site;
 2. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 3. 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
 4. impede or redirect flood flows
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan;
- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have access to sufficient available water supplies to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- 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;
- 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; or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impact Assessment Methodology

Information for this assessment of impacts relative to hydrology, water quality, utilities, and service systems is based on the information provided above in Section 3.5.2, *Environmental Setting*, including the site-specific studies, and the site-specific plans listed previously at the beginning of this section.

The project would be regulated by the various laws, regulations, and policies summarized in Section 3.5.3, *Regulatory Framework*. Compliance by the project with applicable federal, state, and local laws and regulations is assumed in this analysis, and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations are conditions of permit approvals.

As described in more detail below, the analysis of water supply, drainage and erosion, and wastewater impacts in this section takes into account that Under Canvas would incorporate into

their facility designs the technical recommendations provided in the technical study reports cited in this section. The analysis also considers the various existing state and county regulations that apply to design, construction, and operation. Through compliance with the existing state and county regulations, Under Canvas would be required to demonstrate that the project design would be compatible with the local hydrology and water quality conditions; this must occur before building permits are issued.

A significant impact would occur if, after considering the features described in the Project Description and the required compliance with regulatory requirements, a significant impact would still occur. For those impacts considered to be significant, mitigation measures are proposed to reduce the identified impacts.

Impact Analysis

Impact 3.5-1: Implementation of the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (*Less than Significant*)

To evaluate impacts from drainage and erosion, and as described above in Section 3.5.2, *Environmental Setting, Topography and Drainage*, a hydrologic and drainage investigation was conducted to calculate anticipated drainage quantities and provide for orderly drainage (Dax, 2019a). Based on the investigation results, grading, erosion control, utility, and horizontal control plans have been prepared (Dax, 2019b). The drainage investigation report and plans are provided in Appendix G.

The drainage investigation notes that the proposed project does not include the addition of significant amounts of impervious surfaces since the tents would be on wooden platforms open on the bottom and the roads would be unpaved gravel. As a result, the site would consist of pervious gravel roadways and wooden tent platforms that would allow water to run beneath, while maintaining existing drainage patterns as much as possible. Sheet flow would not be collected and conveyed, and would continue to sheet flow across campsites. Where flow collects in drainage channels, culverts would be provided to convey this flow across the roadways. The drainage investigation estimated flow volumes and sizing for the culverts, which are used to design the culverts. Additionally, where needed for erosion protection, appropriately sized swales would be constructed to convey flow along roadways to where the culverts would be located. The flow in all areas was estimated accounting for 10, 25, and 100-year storm events.

Because the proposed project creates minimal impervious area, stormwater treatment would not be required. Existing drainage patterns would be maintained in concert with the improvements to the project site, and the overall project will not degrade stormwater quality. As a result, no stormwater treatment is proposed or required for this site. The drainage study concluded that the site, as designed, would be in accordance with the requirements outlined by Tuolumne County criteria and is not anticipated to add to peak flow rates beyond what is experienced naturally. Additionally, due to the fact that the site would be developed naturally as much as possible, there would be no anticipated impairments to stormwater quality. Furthermore, as there would be no

permanent structures, and as the tents are elevated above the ground, the site would be adequately protected from the 100-year storm.

Construction

The construction of the project would require the construction of gravel roads, and excavations for tent post foundations, and trenches for the water supply and waste water treatment and disposal system. These ground disturbing activities have the potential to discharge sediment into drainages that could adversely affect surface water.

The areal extent of ground disturbance would be larger than one acre. Because the overall footprint of construction activities would exceed one acre, the proposed project would be required to comply with the Construction General Permit and the local stormwater ordinances. These state and local requirements were developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires preparation and implementation of a SWPPP, which requires applications of BMPs to control runoff and runoff from construction work sites. The BMPs would include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion and the potential for impacts to surface water quality from occurring during construction.

The required compliance with the regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials common in construction operations (fuels, oils, lubricants, etc.), and controlling runoff from construction activities would reduce the potential for adverse effects to water quality to **less than significant**.

During the construction phase, construction equipment and materials would include fuels, oils and lubricants, and paints and thinners, which are all commonly used in construction. The routine use or an accidental spill of hazardous materials could result in inadvertent releases, which could adversely affect the water quality of stormwater and runoff to surface water bodies (streams and rivers).

Construction activities would be required to comply with numerous hazardous materials regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies. Contractors would be required to prepare and implement hazardous materials business plans that would require that hazardous materials used for construction would be used properly and stored in appropriate containers, spill prevention measures be implemented, and that spill response procedures are in place to respond to accidental releases. The California Fire Code would also require measures for the safe storage and handling of hazardous materials. The required compliance with existing hazardous materials regulations that govern the transportation, use, handling, and disposal of hazardous materials, and controlling runoff from construction activities would reduce the potential for adverse effects to water quality to **less than significant**.

Operations

Once constructed, there would be no further ground disturbance and no potential for erosion that could affect water quality. As discussed above, the drainage pattern of the project site would largely remain in its natural condition with a negligible addition of impervious surfaces and few changes to the natural drainage pattern. The only additions would include appropriately-sized culverts to allow the existing onsite drainages to pass under the gravel roads. The plans include an erosion control plan prepared in accordance with County drainage regulations that would facilitate continued flow thru the ephemeral drainages designed to handle a 100-year storm event. The required compliance with existing county drainage and erosion control regulations would ensure that erosion would not adversely affect surface water and impacts would be **less than significant**.

As also discussed previously, the project would construct an onsite wastewater treatment and disposal system. As described in Section 3.5.3, *Regulatory Framework, Tuolumne County Codes*, the County has established requirements for the permitting, construction, operation, and inspection of onsite wastewater treatment and disposal systems. The proposed project would be required to comply with the County regulations, which describe requirements for the permitting, location, materials, and flow rates of onsite wastewater treatment and disposal systems. The end result of the regulations would be that wastewater would be treated to levels such that the water quality standards and waste discharge requirements would not be violated, and impacts would be **less than significant**.

Mitigation Measure

None required.

Impact 3.5-2: Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (*Less than Significant*)

Construction

The construction of the campground would require small quantities of water for construction workers and construction operations, and would be supplied by offsite water sources. Therefore, relative to groundwater supplies during construction, there would be **no impact**.

As discussed previously, the proposed project would not add significant areas of impervious surfaces, resulting in **no impact** relative to the addition to impervious surfaces and sustainable groundwater management.

Operation

To evaluate project impacts to water supply, and as described above in Section 3.5.2, *Environmental Setting, Groundwater Resources*, a hydrogeological investigation was conducted that included the installation, aquifer pump testing, and chemical testing of three onsite groundwater wells (WRA, 2020). The onsite Wells 1, 2, and 3 are shown on Figure 2-3. Wells 1

and/or 2 would be used to supply water for the project, with Well 3 retained as a backup. Based on the results of the aquifer pumping tests, Wells 1 and 2 are capable of providing 40 gpm, which is twice the project's needs for water supply. The aquifer pumping tests indicated that maximum distance that pumping at 40 gpm would affect is about 1,256 feet, the distance from Well 1 to Well 3, which experienced a negligible drawdown of less than one foot. However, the proposed pumping rate for the Under Canvas project is only 20 gpm, and not the 40 gpm that was tested. This means that the effects of onsite pumping would be less than 1,256 feet from Wells 1 and 2.

Water supply for the proposed project would be from onsite groundwater wells. As described in Chapter 2, *Project Description*, the total expected maximum daily water use is estimated to be 7,755 gallons per day (gpd) for those days when the campground is fully occupied.

As described previously, onsite Wells 1 and 2 are capable of providing 40 gpm with a negligible drawdown to onsite Well 3, located about 1,256 feet from Well 1. The estimated project daily water use of 7,755 gpd equals 5.4 gpm, well within the capability of Wells 1 and 2. In addition, the campground would only operate seven months of the year, further reducing the demand on groundwater supplies. Therefore, the impact to water supplies and sustainable groundwater management would be **less than significant**.

The aquifer pumping tests indicated that the areal extent of pumping impact would be largely contained within the project site, even when using a sustained pumping rate of 40 gpm, which is twice that needed to support the project. The nearest other existing water supply wells are assumed to be at nearby rural residences. The closest residences are at 30350 Sawmill Mountain Road located about 1,800 feet northwest of Well 1 and two residences on Hardin Flat Road located about 2,000 feet to the southeast. Both residences are farther than the observed effect from the 40 gpm aquifer pumping tests and the extent of offsite pumping effects would be even less under actual operational pumping conditions, which are not expected to exceed 20 gpm during peak use periods. Therefore, the extent of areal extent where groundwater levels would decrease would be even smaller under actual operating conditions. Therefore, the impact to nearby water supply wells would be **less than significant**.

Mitigation Measure

None required.

Impact 3.5-3: Implementation of the proposed project would not 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. (*Less than Significant*)

Construction

The construction of the project would require the construction of gravel roads, and excavations for tent post foundations, and trenches for the water supply and waste water treatment and disposal system. These ground disturbing activities have the potential to alter the existing drainage pattern of the site that could discharge sediment into drainages that could adversely affect surface water.

As discussed in the *Environmental Setting, Topography and Drainage*, the site does not have any perennial rivers or stream, only two ephemeral drainages. As also discussed previously, the drainage pattern of the project site would largely remain in its natural condition with a negligible addition of impervious surfaces and few changes to the natural drainage pattern. The only additions would include appropriately-sized culverts to allow the existing onsite drainages to pass under the gravel roads. The proposed plans include an erosion control plan prepared in accordance with County drainage regulations that would facilitate continued flow thru the ephemeral drainages designed to handle a 100-year storm event. The required compliance with existing County drainage and erosion control regulations would ensure that erosion would not adversely affect surface water and impacts would be **less than significant**.

Operation

Once constructed, the few changes to the drainage pattern would consist of a few culverts under gravel roads to maintain connectivity for the two onsite ephemeral drainages. These culverts would be constructed in accordance with County regulations to handle stormwater flow volumes up to a 100-year storm event. In addition, the addition of tents would not add impervious surfaces because the tents would be on platforms on posts, allowing water to continue flowing beneath the tents during rain events. Therefore, the impacts relative to changes to drainage pattern and additional impervious surfaces would be **less than significant**.

Mitigation Measure

None required.

Impact 3.5-4: Implementation of the proposed project would not occur in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. (No Impact)

The proposed project is not located within a designated 100-year flood hazard area, as discussed above in Section 3.5.2, *Environmental Setting, Flooding and Dam Failure*. Additionally, the Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan lists the project area as Zone X which is for areas of minimal flood hazard. As such, there would be no housing constructed in a 100-year flood hazard area as part of the proposed project, nor would there be a change in the 100-year flood hazard area or impediment of flows. Based on the project site's location and the absence of large bodies of water, the site is not at risk from tsunami or seiche. There are also no large-scale flood control structures or facilities upstream from the site, so the site is not at risk from mudflows or flooding that could occur as a result of levee failure. Therefore, **no impact** would occur.

Mitigation Measure

None required.

Impact 3.5-5: Implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

The proposed project would use groundwater as the campground's water supply. If the onsite water usage exceeds the capacity of the onsite aquifer, the pumping of onsite water could adversely conflict with the Basin Plan and the sustainable use of groundwater.

As discussed previously, aquifer pumping tests conducted on onsite Wells 1 and 2 confirm that the onsite aquifer can support at least twice the proposed pumping rate of 20 gpm. The negligible drawdown in onsite Well 3 indicates that the pumping of Wells 1 and 2 would not adversely affect nearby water supply wells. The use of groundwater at the site is consistent with the Basin Plan beneficial use designation of groundwater as a drinking water supply.

The construction and operation of the onsite wastewater treatment and disposal system would ensure that groundwater quality would not be adversely affected, which would be consistent with the Basin Plan. In addition, because wastewater would be treated onsite and routed to two leach fields, some portion of the water used onsite would be infiltrated back to the aquifer after treatment. Finally, the project site is not located within a basin that is subject to a sustainable groundwater management plan. Therefore, the impact relative to the Basin Plan and a sustainable groundwater management plan would be **less than significant**.

To evaluate impacts from wastewater treatment and disposal, and as described above in Section 3.5.2, *Environmental Setting, Wastewater Treatment, and Disposal Groundwater Resources*, a wastewater treatment and disposal investigation was conducted that included evaluating the onsite soil conditions for the suitability of onsite treatment and disposal (Don Myers, 2019a). Based on the results of the investigation, detailed plans have been prepared for the design and installation of the system that includes septic tanks, and two leach fields and associated piping (Don Myers, 2019b). The locations of the leach fields are shown in Figure 2-3. Both wastewater reports are provided in Appendix G.

For all domestic strength wastewater (biological oxygen demand [BOD] less than 250 milligrams per liter [mg/l]), primary treatment would occur using a code-compliant septic tank. After primary treatment, a pump package with duplex pumping (with lead/lag configuration) would pressure dose the gravel loaded leach system.

Wastewater resulting from food handling and preparation produces high strength wastewater. Therefore, the food facility wastewater would be treated with a grease interceptor, post-grease interceptor septic tank, followed by a moving bed biofilm reactor (MBBR). The treatment process would reduce the BOD to less than 250 mg/l prior to dispersal. Effluent dispersal would use a duplex pumping system (with lead/lag configuration) to a pressure dosed gravel loaded leach system.

The wastewater daily flow would be divided between two less-than-10,000 gallons per day (gpd) wastewater systems. Details of the system layout and system components are provided in the wastewater plans in Appendix G (Don Myers, 2019b). The maximum daily wastewater flow rates

are estimated to be about 8,280 gpd for the domestic wastewater system and 3,561 gpd for the food service wastewater (Don Meyers, 2020).

As described in Section 3.5.3, *Regulatory Framework, Tuolumne County Codes*, the County has established requirements for the permitting, construction, operation, and inspection of onsite wastewater treatment and disposal systems. The proposed project would be required to comply with the County regulations, which describe requirements for the permitting, location, materials, and flow rates of onsite wastewater treatment and disposal systems. The end result of the regulations would be that wastewater would be treated to levels such that the water quality standards and waste discharge requirements would be achieved, which would be consistent with the Basin Plan, and impacts would be **less than significant**.

Mitigation Measure

None required.

Impact 3.5-6: Implementation of the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (*Less than Significant with Mitigation*)

Construction and Operation

As described in Section 2.4, *Project Description*, the proposed project would not use natural gas. Accordingly, that topic will not be discussed further.

The proposed project would require the construction and operation of an onsite water supply system that would use onsite groundwater. The details of the water supply and treatment system are provided in Chapter 2, *Project Description*. All water supply components would be constructed and operated onsite; no offsite changes to public water supply infrastructure would be needed. The environmental effects of constructing and operating the onsite water supply system are discussed in Impacts 3.5-1, 3.5-2, and 3.5-5, which concluded the impact would be **less than significant**.

The proposed project would require the construction and operation of an onsite wastewater treatment and disposal system. The details of the water supply and treatment system are provided in Chapter 2, *Project Description*. All wastewater supply components would be constructed and operated onsite; no offsite changes to public wastewater supply infrastructure would be needed. The environmental effects of constructing and operating the onsite wastewater treatment and disposal system are discussed in Impacts 3.5-1 and 3.5-5, which concluded the impact would be **less than significant**.

The proposed project would include the construction and operation of solar power lighting, which would reduce the demand on the public electrical power grid. However, the project would also connect to the existing PG&E electrical power grid. The facility would make use of a propane-

powered standby generator during power outages, which would provide power during unplanned and planned outages, such as during PG&E's occasional planned outage periods when it de-energizes its system when the risk of wildfire is high.

Although the campground would be connected to the public electrical system, the use of solar power would reduce the electricity demand. In addition, the campground would not operate during winter months, reducing the electrical power demand to zero during those periods. The minimal campground electricity demands are anticipated to be well within PG&E's capacity. To verify the availability of sufficient electrical service, implementation of **Mitigation Measure 3.5-1** would result in an impact that would be **less than significant**.

Mitigation Measure 3.5-1: Prior to construction, the applicant shall acquire a will-serve letter from PG&E. The procedures to acquire PG&E approval to connect to their electrical grid are summarized Below (PG&E, undated):

1. Application package: An application package that includes the following shall be submitted to PG&E:
 - a. Site plan
 - b. Improvement plans
 - c. Architectural plans (elevation plans, for example, to review meter location)
 - d. Project-approval and permit conditions that need to be incorporated in utility design and construction activities. This may include requirements and conditions for onsite activities, as well as to offsite improvements, along with relevant permits and project approvals.
 - e. Additional load details beyond those listed in application.
 - f. Electrical and mechanical plans
 - g. Acquire permits and approvals from appropriate county and other regulatory agencies.
2. Field meeting: Conduct a field meeting with PG&E to review the project needs. Topics may include project conditions, engineering, service routes, meter locations, rights-of-way, tree pruning, construction responsibilities, temporary construction power needs, date the service is needed, preliminary costs, and rates.
3. Engineering: During the engineering phase, PG&E identify their costs, prepare construction drawings, order critical materials with long lead times and coordinate service engineering with other utilities.
4. Billing, Contract, and Right-Of-Way: Once PG&E receives all contracts and payments, and all requirements for rights-of-way, permits and disclosed conditions (refer to Step 1) are met, PG&E will schedule construction of the electrical connection.
5. Construction: Under Canvas shall complete all of the construction responsibilities Under Canvas agreed to before PG&E will complete their part of the gas and electric

service. A PG&E representative may set up a pre-construction meeting to review construction responsibilities in more detail and discuss final scheduling.

6. Meter Set: Once construction is complete, Under Canvas shall contact PG&E to install (set) the electric meter.

Impact 3.5-7: Implementation of the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (*Less than Significant*)

The project site would use onsite groundwater for the campground water supply. As discussed previously, aquifer pumping tests conducted on onsite Wells 1 and 2 confirm that the onsite aquifer can support at least twice the proposed pumping rate of 20 gpm. The impact on water supply is analyzed above in Impact 3.7-2, which concluded the impact to water supplies would be **less than significant**.

Mitigation Measure

None required.

Impact 3.5-8: Implementation of the proposed project would not 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. (*No Impact*)

The project site would be served by an onsite wastewater treatment and disposal system. The project will not connect to offsite water supply sources. Therefore, relative to a wastewater treatment provider's capacity to serve the proposed project, there would be **no impact**.

Mitigation Measure

None required.

Impact 3.5-9: Implementation of the proposed project would not 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. (*Less than Significant*)

Construction

Project construction would generate solid waste from excavation activities, roadway materials, and general waste. As discussed previously, the construction of the campground would result in minimal changes to the existing topography. Soil excavated for culverts and tent platform postholes would be spread thinly onsite. Soil excavated for utility trenches would be returned to the trenches with any excess soil thinly spread on the site. No soil would be exported from the site.

As discussed previously, *Solid Waste*, construction solid waste would be brought to the Big Oak Flat Transfer Station located in Groveland, followed by disposal at the Highway 59 Disposal Site. The Highway 59 Disposal Site is well below its maximum permitted capacity of 30,012,352 cubic yards, with 28,025,334 cubic yards remaining capacity. Construction waste generated by the project is not anticipated to cause the disposal site to exceed its maximum permitted disposal volume as no structures would be demolished. Additionally, the disposal site is not expected to reach its total maximum permitted disposal capacity during the project's construction period. Therefore, the disposal site would have sufficient capacity to accept construction solid waste generated by the project, resulting in a **less than significant impact**.

Operations

To evaluate impacts associated with solid waste disposal, solid waste disposal estimates for project operations were estimated based on the following:

- Campsites = 99 (from Project Description)
- Persons per campsite = 2.5 (from Project Description)
- Operations = 7 months (mid-March to mid-October; from Project Description)
- Pound per day per person = 4.4 (USEPA, 2016)
- Cubic yards per pound = 800 (CalRecycle, 2018)

From these estimates, the proposed project would generate about 290 cubic yards of solid waste per year.

Solid waste would be brought to the Big Oak Flat Transfer Station located in Groveland, followed by disposal at the Highway 59 Disposal Site. The disposal site is well below its maximum permitted capacity of 30,012,352 cubic yards, with 28,025,334 cubic yards remaining capacity. Additionally, the disposal site is not expected to reach its total maximum permitted disposal capacity until at least 2030. Therefore, the disposal site would have sufficient capacity to accept construction solid waste generated by the project, resulting in a **less than significant impact**.

Mitigation Measure

None required.

Impact 3.5-10: Implementation of the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (No Impact)

Construction and operation of the proposed project would comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, there would be **no impact**.

Mitigation Measure

None required.

Cumulative Impacts

Significant cumulative impacts could occur if the incremental impacts of the proposed project combined with the incremental impacts of one or more cumulative projects to result in a cumulatively considerable impact. Section 3.0.2, *Section Format, Cumulative Impacts*, identified the following cumulative projects:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.
- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.
- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

As discussed above, there would be no impact due to the proposed project relative to flood hazard, tsunami, or seiche zones (Impact 3.5.4), wastewater treatment providers (Impact 3.5-8), and compliance with federal, state, and local solid waste statutes and regulations (Impact 3.5-10). Therefore, these topics could not combine with cumulative projects to result in a cumulatively considerable impact and are not discussed further.

Impact 3.5-11: Implementation of the proposed project, in conjunction with other development, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (Less than Significant)

Construction

As discussed above in Impact 3.5-1, construction projects that disturb more than one acre are required to obtain coverage under the state Construction General Permit (CGP), described in Section 3.5.3, *Regulatory Framework*. All three of the cumulative projects listed above would disturb more than one acre and would all be required to obtain coverage under the CGP. As required by the permit, each project would be required to prepare and implement a SWPPP with BMPs to control runoff.

If the projects are constructed at the same time, the erosion effects could be cumulatively significant. However, the state CGP would require each project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. Through compliance with this requirement, the potential for erosion impacts would be reduced. The CGP has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations (amount of sediment or pollutants per volume of runoff water) below action levels. With compliance with existing regulations, water quality standards and waste discharge requirements would not be violated and impacts would not be cumulatively considerable (**less than significant**).

Operation

As discussed previously, the project would construct an onsite wastewater treatment and disposal system. Given the rural nature of the area, it is assumed that the cumulative projects would also construct and operate similar onsite wastewater treatment and disposal systems. As described in Section 3.5.3, *Regulatory Framework, Tuolumne County Codes*, the County has established requirements for the permitting, construction, operation, and inspection of onsite wastewater treatment and disposal systems. As with the proposed project, all of the cumulative projects would also be required to comply with the same regulations. The end result of the regulations would be that wastewater would be treated to levels such that the water quality standards and waste discharge requirements would not be violated, and impacts would not be cumulatively considerable (**less than significant**).

Mitigation Measure

None required.

Impact 3.5-12: Implementation of the proposed project, in conjunction with other development, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (Less than Significant)

As discussed previously, *Drainage and Erosion*, the proposed project would have no impact relative to additional impervious surfaces. Therefore, relative to impervious surfaces and recharge, the proposed project could not combine with other projects to result in cumulatively considerable impacts (**no impact**).

Construction

Until operational, the proposed project and the cumulative projects would not combine to cause cumulatively considerable impacts (**no impact**).

Operation

The proposed project would use groundwater as the water supply. As discussed previously, the aquifer pumping tests of Wells 1 and 2 indicated that the maximum distance where drawdown was observed would be less than 1,256 feet from Wells 1 and 2. The only cumulative project within that distance would be the Terra Vi project; the other two cumulative projects are too far away to combine with the proposed project for a considerably cumulative impact.

As discussed in the hydrogeologic report (WRA 2020, provided in Appendix G of this DEIR), the aquifer pumping tests for onsite Well 2 and the two Terra Vi site wells (TV-1 and TV-2) were conducted at the same time, with the Terra Vi aquifer pumping tests starting about one day prior to the Well 2 aquifer pumping test (see Figure 14 in WRA 2020 in Appendix G). Thus, the aquifer pumping tests were conducted in such a manner to quantify the cumulative impact of both sites being operational at the same time. Prior to beginning the Well 2 aquifer pumping test, Well 1, the well closest to the Terra Vi site, experienced a water level drawdown of about a one foot due to the Terra Vi pumping test; no drawdown was observed in Wells 2 and 3 (see Figure 15 in WRA 2020 in Appendix G). This indicates that the pumping of the Terra Vi wells has a negligible effect on the proposed project site. A drawdown on one foot or less is considered negligible because well pumps are set in wells at depths well below pumping water levels to prevent exposing the pump to air that could damage the pump. A decrease of one foot or less of drawdown would not expose the pump. Further, the commencement of the aquifer pumping test on Well 2 and the later pumping test on Well 1 did not produce observable drawdowns in the two Terra Vi wells. Therefore, the aquifer pumping tests results indicate that the proposed project and the Terra Vi project would be able to operate simultaneously without adversely affecting each other's operations. Finally, because the proposed project would operate at 20 gpm rather than the 40 gpm used for the aquifer pumping tests, and would also not operate in the winter, the cumulative impact would be even smaller. Therefore, the two projects would not combine to result in a cumulatively considerable impact. (**less than significant**).

Mitigation Measure

None required.

Impact 3.5-13: Implementation of the proposed project, in conjunction with other development, would not 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. (Less than Significant)

Construction and Operation

As discussed in Impact 3.5-3, the Under Canvas project would result in minimal changes to drainage patterns at the project site. Nonetheless, the minimal changes would be required to comply with the state CGP and the Tuolumne County ordinance codes described in Section 3.5.3, *Regulatory Framework*. It is assumed that the cumulative projects may also result in at least some changes to drainages on their respective sites. Each cumulative project would also be required to comply with the same regulations. Grading permits would be required of each cumulative project that would require grading plans and erosion control plans that would describe changes to existing drainages, if any, and the runoff control measures and best management practices to prevent erosion and polluted runoff. In addition, the grading and erosion control plans would include measures to control runoff from the addition of impervious surfaces. With compliance with existing regulations, impacts would not be cumulatively considerable (**less than significant**).

Mitigation Measure

None required.

Impact 3.5-14: Implementation of the proposed project, in conjunction with other development, would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. [No Impact (Construction) Less than Significant (Operation)]

Construction

As discussed in Impact 3.3.5, the project site is not located within a basin that is subject to a sustainable groundwater management plan. The cumulative projects are also not located within basin that is subject to a sustainable groundwater management plan. Therefore, relative to sustainable groundwater management plans, there would be **no impact**.

Until operational, the proposed project and the cumulative projects would not affect the Basin Plan.

Operations

The proposed project would use groundwater as the campground's water supply. It is assumed that the cumulative projects would also use groundwater beneath their sites for water supply. If the onsite water usage exceeds the capacity of aquifers beneath each site, the pumping of groundwater could conflict with the Basin Plan by adversely affecting water supply and water quality. As discussed previously, *Water Supply*, aquifer pumping tests were conducted at the Under Canvas site to confirm that the onsite aquifer can support the proposed use as a condition of site use permits. Similarly, the cumulative projects would also be required to demonstrate that their projects have an adequate water supply as condition of their use permits.

The proposed project would treat and dispose of wastewater onsite as described previously. The construction and operation of the onsite wastewater treatment and disposal system in accordance with Tuolumne County regulations will ensure that groundwater quality is not adversely affected, which would be consistent with the Basin Plan. Similarly, the cumulative projects would also be required to comply with the same Tuolumne County regulations for the treatment and disposal of wastewater on their sites. With compliance with existing regulations, the onsite wastewater treatment and disposal systems would ensure that wastewater treatment and disposal does not adversely impact water quality, which would be consistent with the Basin Plan.

Therefore, with compliance with existing regulations and use permits, impacts relative to the Basin Plan would not be cumulatively considerable (**less than significant**).

Mitigation Measure

None required.

Impact 3.5-15: Implementation of the proposed project, in conjunction with other development, would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less Than Significant with Mitigation)

As described in Section 2.4, *Project Description*, the proposed project would not use natural gas, propane, or telecommunication facilities. Accordingly, these topics would not result in cumulative impacts and are not considered further.

As described in Section 2.4, *Project Description*, the proposed project would construct and operate an onsite water supply system that would use onsite groundwater. All water supply components would be constructed and operated onsite; no offsite changes to public water supply infrastructure would be needed. As discussed above in Impact 3.5-12, the Terra Vi project is the only cumulative project close enough to combine with the proposed project for a cumulatively considerable impact. However, as discussed in Impact 3.5-12, the combined aquifer pumping tests conducted on both sites demonstrated that both sites would be able to operate at the same time without adversely affecting each other's operations and the impacts would not be cumulatively considerable (**less than significant**).

As described in Section 2.4, *Project Description*, the proposed project would construct and operate an onsite wastewater treatment and disposal system. The details of the water supply and treatment system are provided in Section 2.4.4, *Wastewater Management*. All wastewater supply components would be constructed and operated onsite; no offsite changes to public wastewater supply infrastructure would be needed. Given the rural nature of the area, it is assumed that the cumulative projects would also construct and operate onsite wastewater treatment and disposal systems. Similar to the proposed project, the cumulative projects would also be required to comply with the relevant Tuolumne County regulations. With compliance with the existing

regulations, the onsite wastewater treatment and disposal systems would not adversely affect water quality and the impacts would not be cumulatively considerable (**less than significant**).

The proposed project would include the construction and operation of solar power facilities, which would reduce the demand on the public electrical power grid. However, the project would also connect to the existing PG&E electrical power grid. The details of the electrical and lighting components are described in Section 2.4, *Project Description*. It is assumed that the cumulative projects would also connect to the existing PG&E electrical power grid. Similar to the proposed project, the cumulative projects would also need to apply to PG&E for service. To verify that PG&E has the capacity to supply electrical power, the cumulative projects would also be required to submit application packages to PG&E, as described above in Mitigation Measure 3.5-1. It is assumed that the cumulative electricity demands would be within PG&E's capacity and impacts would not be cumulatively considerable (**less than significant with mitigation**).

Mitigation Measure

None required.

Impact 3.5-16: Implementation of the proposed project, in conjunction with other development, would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (Less than Significant)

The availability of water supplies relative to the proposed project and cumulative projects are analyze above in Impact 3.5-12, which concluded the Under Canvas and cumulative projects would not combine to result in a cumulatively considerable impact (**less than significant**).

Mitigation Measure

None required.

Impact 3.5-17: Implementation of the proposed project, in conjunction with other development, would not 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. (Less than Significant)

The capacity of the local Highway 59 Disposal Site was analyzed in Impact 3.5-9, which concluded the landfill has 28,025,334 cubic yards remaining capacity, indicating that the landfill will have sufficient capacity to accept the solid waste from the Under Canvas and cumulative projects. The Under Canvas and cumulative projects would not combine to result in a cumulatively considerable impact relative to solid waste (**less than significant**).

Mitigation Measure

None required.

3.5.5 References

Ascent Environmental, 2018. Draft Recirculated Environmental Impact Report for the Tuolumne County General Plan Update Project. August.

CalRecycle, 2018. *Calculations, Solid Waste Cleanup Program Weights and Volumes for Project Estimates*. August 20.

———, 2020a. SWIS Facility Detail, Big Oak Flat Transfer Station.

———, 2020b. SWIS Facility Detail, Highway 59 Landfill.

Dax Consulting, 2019a. *Hydrologic and Hydraulic Drainage Report for Under Canvas, Tuolumne County, CA*. March.

———, 2019b. *Grading Plan, Erosion Control Plan, Utility Plan, Horizontal Control Plan*. December 16.

Don Meyers, REHS, 2019a. *Under Canvas Commercial Wastewater System*. January 2.

———, 2019b. *Under Canvas Commercial Wastewater System Plans*. July 16.

———, 2020. *Estimated Maximum Daily Wastewater Flow Rates*. February 3.

Kennedy-Jenks, 2013. Tuolumne-Stanislaus Integrated Regional Water Management Plan. August 2013.

Krazan & Associates, 2019. *Geotechnical Engineering Investigation, Proposed Yosemite under Canvas Project, South of SR-120 at Hardin Flat Road, Tuolumne County, California*. May 29.

Pacific Gas and Electric (PG&E), 2018. *Where Your Electricity Comes From*.

———, undated. *New or Upgraded Utility Service Connections (New Construction) Process Guide*.

———, 2018. Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan, 2018 Update. January.

U.S. Environmental Protection Agency (USEPA), 2016. *Municipal Solid Waste*. March 29.

Water Resources Associates, Inc. (WRA), 2020, *Hydrogeologic Report, Under Canvas – Groveland, California*. February 12.

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3.6 Noise

3.6.1 Introduction

This section provides an overview of the existing noise and vibration environment at the project site and surrounding area, the regulatory framework as it relates to noise and vibration, an analysis of potential noise and vibration impacts that would result from implementation of the project, and mitigation measures where appropriate.

3.6.2 Environmental Setting

Technical Background

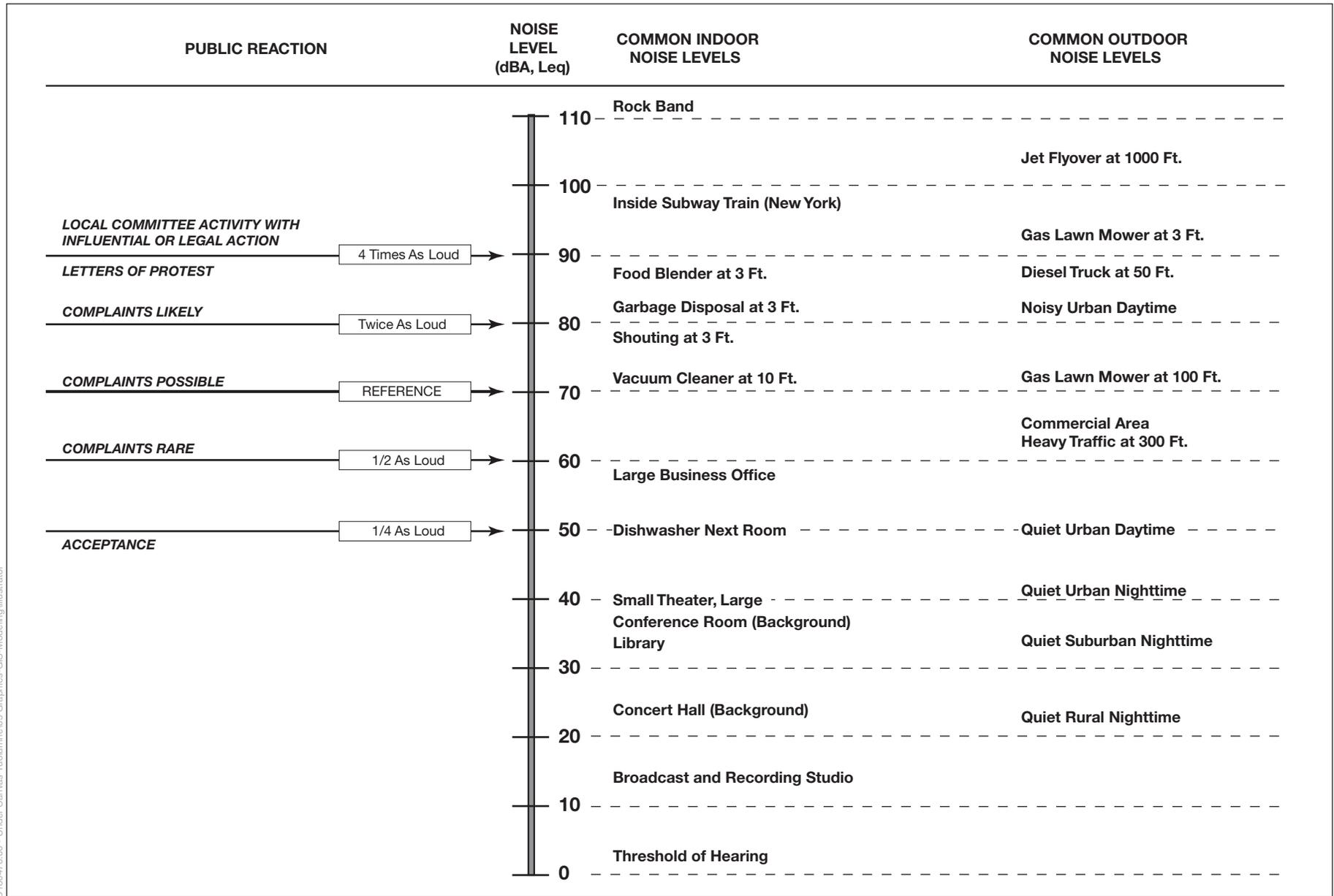
Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.6-1**.

Noise Exposure and Community Noise

Noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor.



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SOURCE: Caltrans Transportation Laboratory Noise Manual, 1982; and modification by ESA

Yosemite Under Canvas Project

Figure 3.6-1
Typical Noise Levels



These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

Leq: the energy-equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The Leq is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

Lmax: the instantaneous maximum noise level for a specified period of time.

L₅₀: the noise level that is equaled or exceeded 50 percent of the specified time period. The L₅₀ represents the median sound level.

L₉₀: the noise level that is equaled or exceeded 90 percent of the specific time period. This is considered the background noise level during a given time period.

DNL: Also abbreviated Ldn, it is a 24-hour day and night A-weighted noise exposure level which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night (“penalizing” nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: similar to DNL, the Community Noise Equivalent Level (CNEL) adds a 5-dB “penalty” for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10-dB penalty between the hours of 10:00 p.m. and 7:00 a.m.

Effects of Noise on People

When a new noise is introduced to an environment, human reaction can be predicted by comparing the new noise to the existing “ambient noise” level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur (Caltrans, 2013):

- except in carefully controlled laboratory experiments, a change of 1-dB cannot be perceived;
- outside of the laboratory, a 3-dB change is considered a just-perceivable difference;
- a change in level of at least 5-dB is required before any noticeable change in human response would be expected; and
- a 10-dB change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion, hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine

in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dBA for hard sites and 7.5 dBA for soft sites for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the receiver such as parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 2013).

Fundamentals of Vibration

As described in the Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment (FTA, 2018), ground-borne vibration can be a serious concern for nearby neighbors, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, sheet pile-driving and operating heavy earth-moving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is the commonly used metric to describe RMS amplitude. The decibel notation acts to compress the range of numbers required to describe vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, students, the elderly and sick), and vibration sensitive equipment.

The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and sheet pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV and the FTA threshold of human annoyance to ground-borne vibration is 80 Vdb (FTA, 2018).

Existing Noise Setting

Existing Noise Levels

The noise environment surrounding the project site is influenced by vehicle traffic along SR-120. The ambient noise environment at the project site was estimated using the traffic noise model of the Federal Highway Administration (FHWA) and highway volumes published by Caltrans. Based on an estimated setback of approximately 1,000 feet from SR-120, noise at the project site would be approximately 44 dBA during peak traffic hours (U.S. Department of Transportation, 2018). This is a conservative estimate which does not account for intervening topography and trees.

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial (other than lodging facilities) and industrial land uses. The nearest sensitive receptor to the project is a residence located approximately 1,400 feet southeast and downhill of the nearest proposed project facilities. Another residence is located about the same distance from the northwest corner of the site, across SR-120.

3.6.3 Regulatory Framework

Federal, state, regional, and local regulations regarding noise that pertain to the proposed project are identified below.

Federal

The FTA has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in **Table 3.6-1**.

**TABLE 3.6-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

SOURCE: FTA, 2018.

In addition, the FTA has also adopted standards associated with human annoyance for ground-borne vibration impacts for the following three land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional. The FTA defines Category 1 as buildings where vibration would interfere with operations within the

building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but still have the potential for activity interference. The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 3.6-2**. No thresholds have been identified or recommended specific to campgrounds, although Category 2 standards may be applied as they are defined as land uses where people sleep.

**TABLE 3.6-2
 GROUND-BORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT**

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1: Buildings where vibration would interfere with interior operations	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

NOTES:

- ^a Frequent Events" is defined as more than 70 vibration events of the same source per day.
- ^b Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
- ^c Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.
- ^d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: FTA, 2018.

State

The State of California does not have statewide standards for environmental noise, but the California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be “normally acceptable” for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be “clearly unacceptable.” In addition, Section 65302(f) of the California Government Code requires each county and city in the state to prepare and adopt a comprehensive long-range General Plan for its physical development, with Section 65302(g) requiring a Noise Element to be included in the General Plan. The Noise Element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

The California Noise Act of 1973 (Health and Safety Code Sections 46000–46002) sets forth a resource network to assist local agencies with legal and technical expertise regarding noise issues. The objective of the act is to encourage the establishment and enforcement of local noise ordinances.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than DNL 60 dBA. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

Local

Tuolumne County does not have a noise ordinance in its County Code (Tuolumne County, 2018). However, the County does have a noise element in its General Plan.

Tuolumne County General Plan

Noise is addressed in the Tuolumne County General Plan within the Noise Element. Applicable policies from each of these elements are listed below.

Noise Element

Policy 5.A.1: Evaluate the need of proponents of new development of noise-sensitive land uses proposed adjacent to existing transportation or other noise sources to incorporate noise reduction techniques so that noise levels at the new development are consistent with the exposure threshold standards shown in Tables 5.A and 5.B of the General Plan Noise Element. Both of these tables establish a maximum allowable exterior noise level from transportation sources and aircraft noise sources) of 60 dBA Ldn and an interior noise level of 45 dBA Ldn for land uses where people sleep (e.g., residential, lodging).

Implementation Program 5.A.a: Review new public and private development proposals to determine conformance with the policies and programs of this Noise Element. Determine that noise levels from new development will not exceed the noise level standards for specified land uses included in Tables 5.A (Transportation), 5.B (Aircraft), 5.C (Stationary Source see **Table 3.6-3**), or 5.D (Cumulative dBA increase, see **Table 3.6-4**).

**TABLE 3.6-3 (GENERAL PLAN TABLE 5.C)
MAXIMUM ALLOWABLE NOISE EXPOSURE-STATIONARY NOISE SOURCES**

	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Leq, dB	50	45
Maximum level, dB	70	65

**TABLE 3.6-4 (GENERAL PLAN TABLE 5.D)
 SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE¹**

Ambient Noise Level Without Project ² (Ldn or CNEL)	Significant Impact if Cumulative Level Increases By:
<60 dB	+ 5.0 dB or more
60-65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more

NOTES:

¹ These standards shall be applied when considering the noise impacts from projects that could cause a significant increase in the cumulative noise exposure of existing noise-sensitive land uses. If it is likely that existing noise-sensitive land uses could experience these increases in cumulative noise exposure, as measured in CNEL or Ldn, then an acoustical analysis that meets the requirements of Table 5.1 shall be accomplished and the results considered in project design.

² Ambient Noise is defined as the composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

SOURCE: Federal Interagency Committee on Noise (FICON), *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Implementation Program 5.A.b: Require an acoustical analysis where activities associated with proposed development are likely to produce noise levels exceeding those specified in General Plan Tables 5.A, 5.B, 5.C, or 5.D. The acoustical analysis shall be conducted early in the review process so that the possible effects of noise and noise mitigation can be considered in the project design.

Policy 5.A.5: Require that construction activity and temporary construction impacts do not expose existing noise-sensitive land uses to excessive noise levels. Require all new construction activities to implement all feasible noise-reducing measures as necessary to limit construction noise exposure at receiving occupied land uses to within acceptable County noise levels identified in Table 5.C. Should nighttime construction activities be required (between the hours of 7 p.m. and 7 a.m.), exterior noise levels shall not exceed 65 dBA Lmax, based on FICAN's 65 dBA SEL level for sleep disturbance (but conservatively using Lmax, which is more appropriate for construction activities).

3.6.4 Impacts and Mitigation Measures

Significance Criteria

Based on the CEQA Guidelines, a project would have a significant effect on the environment with respect to noise and/or ground-borne vibration if it would:

- Generate 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; or;
- Generate excessive groundborne vibration or groundborne noise levels; or;
- For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels.

Approach to Analysis

Construction Noise Levels

Noise impacts are assessed based on a comparative analysis of the noise levels resulting from construction and the noise levels of existing conditions. Analysis of temporary construction noise effects is based on typical construction phases and equipment noise levels and attenuation of those noise levels due to distances between the construction activity and the sensitive receptors in the site vicinity. Construction noise levels for the project were estimated using published noise data for typical individual pieces of equipment from the FTA. Though the County does not have a specific noise ordinance that defines acceptable working hours, construction activity would comply with standards that are typical for other jurisdictions in California, which relegate noise-producing construction activities in non-residential areas to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday.

Operational Noise Levels

Vehicle trips generated by the development the project would generate roadway noise in a rural highway setting. Increases in traffic noise gradually degrade the environment in areas sensitive to noise. According to CEQA, “a substantial increase” is necessary to cause a significant environmental impact. Consistent with Implementation Program 5.A.a of the Tuolumne County General Plan Noise Element, and as indicated in Table 3.6-4, a significant operational noise increase would occur if noise levels were to increase by 5 dBA or more in an area exposed to noise levels of 60 dBA or less or 3 dBA or more in an area exposed to noise levels between 60 dBA and 65 dBA. Noise level projections were made using traffic data and the FHWA Noise Prediction Model.

Groundborne Vibration Levels

Groundborne vibration levels resulting from construction activities at the project site were estimated using data published by the FTA in its *Transit Noise and Vibration Impact Assessment* (2018) document. Potential vibration levels resulting from project construction are identified for off-site locations that are sensitive to vibration, including existing residences located nearby, based on their distance from construction activities.

Impact Analysis

Impact 3.6-1: Implementation of the project would not result in 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. (*Less than Significant with Mitigation*).

Construction Noise (temporary increase in ambient noise levels)

Temporary noise increases would occur from off-road equipment operation for excavation and grading for the proposed campground and septic system as well as limited concrete pouring for select building pads (buildings would be pre-constructed off-site). As discussed above, Tuolumne County does not have a noise ordinance that addresses construction noise, nor is construction noise specifically addressed in the Noise Element of the County’s General Plan.

Construction of the project would generate temporary and intermittent noise at and near the project site. Noise levels would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. Typical noise levels generated by the construction activities that would be required for construction of the project are shown in **Table 3.6-5**. The noisiest construction activity would be expected to range from 77 dBA to 85 dBA at a distance of 50 feet. The nearest sensitive land uses would be more than 1,000 feet from the construction area, and noise levels from each piece of equipment would be reduced to 48 dBA to 55 dBA at this distance. These noise levels would be well below the County’s 60 dBA exterior noise exposure standards if they were to apply to construction equipment.

**TABLE 3.6-5
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS**

Construction Phase	Average Noise Level (dBA, Leq at 50 feet)	Average Noise Level (dBA, Leq at 1,000 feet)
Backhoe	78	48
Grader	85	55
Loader	79	49
Paver	77	48
Excavator	81	51

SOURCE: U.S. Department of Transportation, 2006.

Additionally, Policy 5.A.5 of the General Plan requires that all new construction activities implement all feasible noise-reducing measures as necessary to limit construction noise exposure at receiving occupied land uses to within acceptable County noise levels. This policy also states that should nighttime construction activities be required (between the hours of 7:00 p.m. and 7:00 a.m.), exterior noise levels shall not exceed 65 dBA Lmax.

To minimize the potential for construction noise impacts inconsistent with Policy 5.A.5, **Mitigation Measure 3.6-1(a)** and **Mitigation Measure 3.6-1(b)** are identified. Under the terms of the mitigation, noise levels generated by the project would be restricted at the receiving property line as directed by the General Plan. Construction noise levels would be monitored if complaints are received by the County regarding any potential violations and, if confirmed, would be investigated and resolved through established code compliance procedures. Additionally, the hours of construction would be limited to only allow construction from 7:00 a.m. to 7:00 p.m. Monday through Saturday. Exterior construction would be prohibited on Sundays and County-recognized holidays.

The implementation of **Mitigation Measure 3.6-1(a)** and **Mitigation Measure 3.6-1(b)** would ensure the impact with respect to generation of a substantial temporary increase in ambient noise levels in the vicinity of the project would be **less-than-significant with Mitigation**.

Land Use Compatibility (non-CEQA)

Noise and vibration impacts to proposed future project occupants from the existing environment, such as existing roadway noise are not subject to CEQA. However, the County has policies and regulations that address existing conditions affecting a proposed project. The analysis of noise compatibility impacts to future occupants of the project, therefore, is discussed in the context of consistency with relevant policies and regulations.

The General Plan establishes a maximum allowable exterior noise level from transportation sources of 60 dBA Ldn and an interior noise level of 45 dBA Ldn for land uses where people sleep (e.g., residential, lodging). Given that the worst case estimated noise level for the project site is 44 dBA during the peak traffic hour on SR-120 (U.S. Department of Transportation, 2018), proposed campsite lodging would be consistent with the noise levels standards established in the General Plan and the impact with respect to stationary source noise exposure standards of the General Plan Noise Element would be **less than significant**.

Operational Stationary Source Noise Impacts

Operation of Yosemite Under Canvas would result in minor increases in ambient noise levels in the project vicinity due to activities such as outdoor dining, community campfires, vehicle movement, and occasional use of the backup generator. Operation of the camp would not include daily activities producing amplified sound or other significant noise producing sources, and as such, would not adversely affect the surrounding environment. In addition, the camp would impose quiet hours from 10:00 p.m. to 7:00 a.m. The nearest existing residence is approximately 1,300 feet southeast of the nearest project facilities; at this distance, operation of the camp is not expected to produce noise impacts to this residence.

Special events could occur on occasion as part of the project's operation, and may involve the temporary use of amplified sound that would be operated in compliance with Tuolumne County Code requirements. Types of events that may occur could include concerts, weddings, and business group events. No permanent amplified sound equipment for these purposes would be installed on the site; its use would be specific to an event and would be intermittent.

Per the requirements of the County General Plan's stationary noise source standard (see Table 3.6-3), amplified sound would be required to conform to an hourly average performance standard not to exceed 50 dBA, as measured at the receiving property line. The generation of amplified sound would also be required to terminate by 10:00 p.m. Special event noise levels would be monitored if complaints are received by the County regarding any potential violations and, if confirmed, would be investigated and resolved through established code compliance procedures. Compliance with these standard requirements would avoid a significant effect, and the impact of the project with respect to operational stationary noise sources would be **less than significant**.

Operational Transportation Noise Impacts

The project would contribute to increased traffic volumes on local roadways. Noise level projections were made using traffic data and the FHWA Noise Prediction Model. The model is based on reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, distance to the receiver, and the acoustical

characteristics of the site. The traffic analysis indicates that the project would generate 45 additional vehicle trips during the a.m. peak hour and 45 additional vehicle trips during the p.m. peak hour. For the modeling effort, a.m. and p.m. peak hour traffic volumes during weekdays were analyzed. The results of the modeling effort are shown in **Table 3.6-6** for the baseline (2018) and baseline plus project scenarios.

**TABLE 3.6-6
 TRAFFIC NOISE INCREASES IN THE PROJECT AREA^a**

Road Segment	Baseline Traffic Noise	Baseline Plus Project	Project Increase
Highway 120 AM Peak Hour	63.8	64.0	0.2

NOTE:

^a These listed values represent the modeled existing noise levels from mobile sources along specified roadways and are based on traffic data from Caltrans and the Transportation Section. Road center to receptor distance is assumed to be 30 meters (approximately 100 feet). Vehicle mix on these road segments is assumed to be 95 percent auto, 2.5 percent medium trucks, and 2.5 percent heavy truck based on Caltrans estimates. The speed for the roadway is assumed to be 55 miles per hour.

SOURCE: ESA, 2019.

Modeled existing noise levels shown in Table 3.6-6 correspond to a distance of 100 feet from the centerline of SR-120. As can be seen in the table, the project would increase existing local roadway noise levels by 0.2 dBA, which is a nominal increase that is undetectable by the human ear and less than the 3 dBA threshold in an area exposed to noise levels between 60 dBA and 65 dBA, as established in Implementation Measure 5.A.a of the General Plan. Therefore, the project impact with respect to transportation source noise increase standards of the General Plan Noise Element would be **less than significant**.

Mitigation Measure

Mitigation Measure 3.6-1(a): The noise levels generated by activities on the project site must adhere to the following General Plan exterior noise limits as measured at the receiving property line:

Zoning Classification of Receiving Property	Noise Level (dB) of Sound Source	
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
MU, R-3, R-2, R-1, RE-1, RE-2, RE-3, RE-5, RE-10, C-O, C-1, C-S, BP	50 L _{eq} . (1 hour)	45 L _{eq} . (1 hour)

Mitigation Measure 3.6-1(b): Hours of exterior construction on the project site shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. Exterior construction shall be prohibited on Sunday and County Holidays.

Impact 3.6-2: Implementation of the project would not result in generation of excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

Ground-borne vibration from construction activities at the project site would produce vibration. Typical reference vibration levels for various pieces of equipment, including drilling, are listed below in **Table 3.6-7**. The nearest building to the project site is a Caltrans snow plow garage approximately 1,250 feet from potential construction areas and would not experience significant vibration resulting in building damage (exceeding 0.2 peak particle velocity (PPV)) or human annoyance (exceeding 0.04 PPV) at the nearest receptor. The nearest residential receptor is approximately 1,300 feet away and at this distance would be unaffected by construction related vibration. The impact of the project with respect to generation of excessive groundborne vibration or groundborne noise levels would be **less than significant**.

**TABLE 3.6-7
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT**

Equipment/Activity	PPV at 25 ft (inches/second) ^a	PPV at nearest building (1,250 feet)	FTA Structural Damage Criterion in PPV	Caltrans Annoyance Criterion
Large Bulldozer	0.089	0.001	0.5	0.04
Loaded Trucks	0.076	0.001	0.5	0.04

SOURCE: ESA, 2018; Federal Transit Administration, 2018a.

Mitigation Measure

None required.

Impact 3.6-3: Implementation of the project would not expose people residing or working in the project area to excessive noise levels 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. (*Less than Significant*)

The nearest airport to the project site is Pine Mountain Lake Airport, approximately 12 miles to the northwest. “Noise Sensitive Areas” of the airport have been established by the County and are over 10 miles from the project site. Additionally, the nearest private airstrip to the project site is the Hermitage Landing Strip, approximately 12 miles to the northwest. Consequently, the project would have **no impact** with respect to exposure of people residing or working in the project area to excessive noise levels in the vicinity of an airport or private airstrip.

Mitigation Measure

None required.

Cumulative Impacts

The impact of the project on noise and vibration must be analyzed in conjunction with past, present, and future development projects which, combined with the proposed project, could result in cumulative impacts. As a practical matter, construction activity would be the noisiest source of noise and vibration generated by the project. The geographic context for the cumulative analysis of noise and vibration is established by Implementation program 5.A.e of the General Plan which states that where residences or other noise sensitive uses are located within 1,900 feet of construction sites, appropriate measures shall be implemented to limit noise exposure from construction. However, this distance is based on building construction activities that include pile driving (TCCRA, 2018), which is not proposed for this project. For site preparation and building construction activities, the distance within which a potential noise impact would occur is 1,100 feet. Receptors within this distance from the project site may experience a noise increase contribution from other projects within this same distance. Consequently, all other cumulative projects beyond 2,200 feet (the maximum distance of a receptor to the project site added to the maximum distance to a non-pile driving project to this same theoretical receptor) from the project site would not be expected to contribute to a cumulative noise impact and, therefore, this radius from the project site boundary is used to define the geographic scope of analysis for cumulative noise and vibration impacts. The only reasonably foreseeable project meeting this requirement is the Terra Vi project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and include a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, seven cabins providing 26 guestrooms, and five employee housing units

Impact 3.6-4: Implementation of the project, in conjunction with other development, would not result in 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. (*Less than Significant*)

The Terra Vi Lodge Yosemite project is located north and across the highway from the Under Canvas project site, and could be constructed contemporaneously with the proposed Under Canvas Yosemite project. Like the Under Canvas project, the Terra Vi Lodge Yosemite project would generate noise from construction activity as well as from increased roadway traffic and stationary sources. However, the Under Canvas project would be approximately 1,300 feet from the nearest sensitive receptor. This distance is beyond the 1,100-foot screening distance for potential impact contribution. While there are isolated rural residential receptors approximately 250 feet north of the Terra Vi Lodge Yosemite project which may be impacted by construction activity associated with this other cumulative project, those receptors are 1,400 feet from the nearest construction area of the Under Canvas project (the access road in the northwest corner of the site), which would be too distant to make a meaningful contribution of construction-related noise impact beyond that potentially resulting from construction of the Terra Vi Lodge Yosemite project. Therefore, the Under Canvas project would not contribute considerably to a cumulative construction noise impact. Additionally, both projects would be subject to the restrictions of Policy 5.A.5 of the General Plan which requires that all new construction activities implement all feasible noise-reducing measures as necessary to limit construction noise exposure at receiving occupied land uses to within acceptable County noise levels. This policy also states that should

nighttime construction activities be required (between the hours of 7:00 p.m. and 7:00 a.m.), exterior noise levels shall not exceed 65 dBA Lmax. The proposed project would also implement Mitigation Measure 3.6-1(a) and Mitigation Measure 3.6-1(b) which would further ensure that cumulative construction noise impacts would be **less than significant with Mitigation**.

Because construction noise would be greater than any operational stationary sources associated with the Terra Vi Lodge Yosemite project, it is reasonable to consider that operational noise from stationary sources would also be less than cumulatively considerable and cumulative stationary source impacts would be **less than significant**.

Traffic noise would also be generated by the Terra Vi Lodge Yosemite project along SR-120 which would be used to access this cumulative project as well as the Under Canvas project. Cumulative noise level projections were made using traffic data and the FHWA Noise Prediction Model, as was done for the Under Canvas project alone in Impact 3.6-1. While the Terra Vi Lodge Yosemite project also would have approximately 100 guest rooms (similar to the 99 guest tents of the proposed project), it would have a few additional uses such as a market, 26 cabins, and five employee rooms. The vehicle trip generation for the Terra Vi Lodge Yosemite Project is estimated to result in a cumulative increase of 92 additional vehicle trips during the peak hour, which was assumed for the modeling effort of cumulative roadway noise.

The results of the modeling effort are shown in **Table 3.6-8** for the baseline (2018) and cumulative plus project scenarios. Modeled existing noise levels shown in Table 3.6-8 correspond to a distance of 100 feet from the centerline of SR-120. As can be seen from Table 3.6-8, the cumulative effect from both projects would increase existing local roadway noise levels by 0.5 dBA which is a nominal increase that is undetectable by the human ear and less than the 3 dBA threshold in an area exposed to noise levels between 60 dBA and 65 dBA established in Implementation Measure 5.A.a of the General Plan. Therefore, the cumulative impact with respect to transportation source noise increase standards of the General Plan Noise Element would be **less than significant**.

**TABLE 3.6-8
CUMULATIVE TRAFFIC NOISE INCREASES IN THE PROJECT AREA**

Road Segment	Baseline Traffic Noise	Baseline Plus Cumulative	Cumulative Increase
Highway 120 AM Peak Hour	63.8	64.3	0.5

NOTE: These listed values represent the modeled existing noise levels from mobile sources along specified roadways and are based on traffic data from Caltrans and the Transportation Section. Road center to receptor distance is assumed to be 30 meters (approximately 100 feet). Vehicle mix on these road segments is assumed to be 95 percent auto, 2.5 percent medium trucks, and 2.5 percent heavy truck based on Caltrans estimates. The speed for the roadway is assumed to be 55 miles per hour.

SOURCE: ESA, 2019.

Mitigation Measure

None required.

Impact 3.6-5: Implementation of the project, in conjunction with other development, would not result in generation of excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

Vibration attenuates much more rapidly with distance than noise. There are no existing vibration sources in the project area and construction activity would be the only potential source of vibration associated with either the proposed project or the Terra Vi Lodge Yosemite project. The geographic scope of analysis for cumulative vibration impacts is defined by the presence of sensitive structures within 120 feet of construction activity, at which distance the greatest source of non-pile driving construction equipment (vibratory compactor) would be attenuated to below 75 VdB, the most stringent of thresholds for residential receptors. Because there are no sensitive land uses within 120 feet of either the Under Canvas project or the Terra Vi Lodge Yosemite project, cumulative impacts related to generation of excessive groundborne vibration or groundborne noise levels would be **less than significant**.

Mitigation Measure

None required.

Impact 3.6-6: Implementation of the project, in conjunction with other development, would not expose people residing or working in the project area to excessive noise levels 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. (*No Impact*)

As discussed in Impact 3.6-3, the nearest airport to the project site is Pine Mountain Lake Airport, approximately 12 miles to the northwest. “Noise Sensitive Areas” of the airport have been established by the County and are over 10 miles from the Under Canvas project site as well as from the Terra Vi Lodge Yosemite project. There are no cumulative projects that would result in a meaningful increase of airport operations. Consequently, there would be **no impact** with respect to cumulative exposure of people residing or working in the project area to excessive noise levels in the vicinity of an airport or private airstrip.

Mitigation Measure

None required.

3.6.5 References

Federal Transit Administration (FTA), 2018. *Transit Noise and Vibration Impact Assessment*, May 2018.

Tuolumne County, 2019. Website FAQ. Available:
<https://www.tuolumnecounty.ca.gov/faq.aspx?qid=164>. Accessed November 6, 2019.

Tuolumne County Community Resources Agency (TCCRA), 2018. Draft Recirculated EIR for the Tuolumne County General Plan Update, p. 3.12-27.

U.S. Department of Transportation, 2006. Federal Highway Administration. FHWA Roadway Noise Construction Model. August 2006.

———, 2018. Federal Highway Administration, Office of Environment and Planning. Traffic Noise Model Version 2.5.

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3.7 Public Services and Recreation

3.7.1 Introduction

This section assesses potential effects on public services that could result from implementation of the project. The section includes relevant baseline information, including a description of existing fire protection, police protection, and parks and recreation facilities, and a description of the potential impacts resulting from the project. Detailed information related to wildfire and associated fire protection services can be found in Section 3.9, *Wildfire*, of this Draft EIR.

The project would develop 99 campsites and associated infrastructure and would not generate any residential population that would create additional demand for schools, libraries, or other public facilities, and therefore these topics are not discussed in this EIR.

3.7.2 Environmental Setting

Fire and Emergency Services

The project site is a private inholding within the Stanislaus National Forest, with surrounding National Forest System lands immediately adjacent to the west, south, and east. As is the case with all private land parcels in the vicinity, the site is located within a State Responsibility Area (SRA) for fire protection responsibility. The surrounding federal lands of the Stanislaus National Forest are designated as a Federal Responsibility Area (FRA). Through an agreement with the U.S. Forest Service (USFS), wildfire protection on SRA lands in the area is provided by the USFS.¹ Such arrangements are common in areas where relatively small and scattered private inholdings are present within much larger areas of federal land.

Wildland firefighting resources in the area are a mix of federal, state, and local resources. As stated previously, the USFS is responsible for providing wildfire protection to the project site through a cooperative agreement with CAL FIRE. The USFS maintains a fire station at the Groveland Ranger District office at Buck Meadows, which is located approximately 9.2 road miles west of the project site off of State Route 120 (SR-120). Resources at the facility include a Type 3 wildland firefighting engine and crew (Engine 42), as well as an Interagency Hotshot Crew (Groveland Interagency Hotshot Crew). Other resources at the facility include a water tender (Water Tender 42) and several patrol/utility vehicles (Stanislaus National Forest, 2020). The USFS and Yosemite National Park also jointly maintain a cooperative Type 3 engine (Engine 346) at Hodgdon Meadow on Yosemite National Park, approximately 7.8 road miles from the project site.

The Tuolumne County Fire Department (TCFD) is responsible for providing structural fire protection and emergency medical services to the project site, though it also has wildland firefighting resources and can provide wildland fire protection as needed. The TCFD is administered by CAL FIRE under a cooperative agreement with the County. TCFD is headquartered in Sonora and includes thirteen fire stations, with eight stations within

¹ Personal communication via phone call with Andy Murphy, CAL FIRE Assistant Chief (with collateral duties with Tuolumne County Fire Department and Groveland Community Services District). April 15, 2020.

unincorporated Tuolumne County. The nearest TCFD firefighting resources are located at Fire Station 78 in Groveland, approximately 17 road miles west of the project site on SR-120.² Resources at the station include two Type 1 fire engines, one Type 2 engine, and one Type 3 engine (Tuolumne County, 2020). Station 78 staffs five part-time fire fighters and maintains shifts of two firefighters on duty for 24 hours a day, seven days a week. The station currently serves approximately 3,451 residents and in 2018 responded to 509 emergency calls.³

According to the Tuolumne County General Plan EIR, TCFD does not use the National Fire Protection Association standard for fire protection services that requires 1-2 firefighters per 1,000 residents because this standard does not fit TCFD's personnel resources and service population. TCFD response time for urban areas is nine minutes, suburban areas have a response time of 10 minutes, rural areas have a response time of 14 minutes, and remote areas have a response time dependent directly on travel distance (Tuolumne County, 2018a).

The TCFD has mutual aid agreements with the Twain Harte Fire Protection District (FPD), Tuolumne City FPD, Columbia FPD, Sonora Fire Department, Groveland Community Services District, Strawberry FPD and the Tuolumne Rancheria Fire Department (Tuolumne County, 2018). In addition to these agreements, both CAL FIRE (and by extension, the TCFD) and the USFS have entered into various cooperative and fire assistance agreements with the U.S. Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs. Based upon these and other interagency agreements, most large wildfire events in the region are responded to by multiple agencies operating under the varying levels of the incident command structure, which is a standardized approach to the command, control, and coordination of emergency response providing a common hierarchy within which responders from multiple agencies can be effective. Emergency and non-emergency medical transport services for Tuolumne County are provided by the Tuolumne County Ambulance Service. The Ambulance Service employs 60 full-time and part-time Paramedics and Emergency Medical Technicians (EMTs). The Tuolumne County Ambulance Service receives approximately 8,000 calls per year (Tuolumne County, 2018a).

Police Services

Police protection to the project site is provided by the Tuolumne County Sheriff's Office (TCSO). The TCSO station nearest to the project site is located at 28 North Lower Sunset Drive in Sonora, approximately 44 road miles northwest of the project site. The TCSO currently has a total of 138 authorized positions, including 63 Patrol Deputies and 38 Adult Detention Deputies.⁴ TCSO does not use a level of service ratio because of the large geographic area of the County (Tuolumne County, 2018a).

² It should be noted that the Tuolumne County Fire Department (TCFD) is a cooperative fire department with CAL FIRE. The Groveland Community Services District also has a cooperative agreement with CAL FIRE. Accordingly, Station 78 in Groveland is a cooperative fire department with all three agencies participating; TCFD, CAL FIRE, and the Groveland Community Services District.

³ Personal communication via phone call with Travis Chunn, Firefighter, October 18, 2019.

⁴ Personal communication via email with Lieutenant Deborah Moss, November 7, 2019.

The TCSO station is staffed seven days a week, 24 hours a day by 13 dispatchers. TCSO's average response time is 12 minutes and 3 seconds and in 2018, TCSO received 41,181 patrol calls for service, 3,910 traffic stops, 801 total citations and 9,348 deputy initiated incidents.⁵ In 2019, TCSO responded to 28 incidents along the 10-mile stretch of the SR-120 corridor between Rainbow Pools and the boundary with Yosemite National Park.⁶

In addition to the Patrol division, the County Jail, Emergency Dispatch Center, and Coroner's Office, the TCSO provides services such as investigations, narcotics, boat patrol, courts security, records, SWAT, search and rescue, and K-9 services.

Tuolumne County is within the California Highway Patrol (CHP) Central Division, which provides additional traffic enforcement along the state highways and County Roadways. The County's CHP area office is located at 18437 Fifth Avenue, in Jamestown, approximately 41 road miles northwest of the project site. The CHP issues traffic citations for traffic violations and provides other services to support overall safety to the residents of Tuolumne County.

Parks and Recreation

Local Facilities

The County includes over 341 acres of parks. There are three parks within a twenty-mile radius of the project site:

- **Westside Memorial Park** is located at the intersection of Bay Street and Main Street in the City of Tuolumne, approximately 17 miles northwest of the project site. Westside Memorial Park features a skate park, several picnic areas, a gazebo, and open lawn for informal play. There is enhanced planting at the entry near the community building. Parking is on-street only, and the park is surrounded on all sides by commercial buildings.
- **Eproson Park** is located in downtown Train Harte, off of Meadow Lane, approximately 20 miles northwest of the project site. Eproson Park features a baseball field, concession stand, skate park, and bocce courts. The park has several picnic areas, a playground, a community garden, an outdoor stage, and public restrooms. The park includes a private parking lot and is surrounded on two sides by residences (Twain Harte, 2019).
- **Mary Laveroni Community Park** is a 2.3-acre park located approximately 14 miles west of the project site. The park features several picnic areas, a playground, a youth center, and public restrooms. The park includes a private parking lot and is directly adjacent to the City of Groveland to the west.

Regional Facilities

Stanislaus National Forest, Yosemite National Park, and other surrounding areas in the Sierra Nevada provide opportunities for hiking, water skiing, horseback riding, rafting, camping, snowmobiling, boating, snow skiing, fishing, and other outdoor activities. Other recreational amenities in the region include historic hotels and inns, golf courses, wineries, museums, casinos, and other attractions.

⁵ Personal communication via email with Lieutenant Deborah Moss, November 7, 2019.

⁶ Personal communication with Undersheriff Neil Evans, April 9, 2020.

Yosemite National Park

Yosemite National Park, located approximately six miles west of the project site, includes approximately 1,200 square miles of mountainous terrain, 95 percent of which is designated as Wilderness. The National Park is managed by the National Park Service and bounded on the southeast by the Sierra National Forest and the northwest by the Stanislaus National Forest. Each year over five million visitors visit the park to partake in various recreational opportunities such as hiking, horseback riding, bicycling, camping, fishing, scenic driving, and wildlife viewing (NPS, 2019).

Stanislaus National Forest

The Stanislaus National Forest encompasses 898,099 acres on the western slope of the Sierra Nevada. The National Forest includes approximately 1,000 miles of hiking trails, approximately 3,000 miles of roads, 78 lakes, and over 800 miles of rivers and streams including the Tuolumne River. Each year there are approximately 1.7 million visitors to the forest, which offers year-round recreational opportunities such as bicycling, camping, fishing, hiking, horseback riding, hunting, picnicking, scenic driving, water sports, and winter sports (USDA, 2019).

3.7.3 Regulatory Framework

Federal, state, regional, and local regulations regarding public services that pertain to the proposed project are identified below.

Federal

There are no federal regulations regarding public services that pertain to the proposed project.

State

California Department of Forestry and Fire Protection

CAL FIRE provides fire protection services for areas within the State Responsibility Areas (SRAs) as well as some local jurisdictions with which CAL FIRE maintains contracts to provide services, including Tuolumne County. In addition, CAL FIRE assists local fire departments through mutual and automatic aid agreements to provide wildfire protection services for incidents occurring within their jurisdictions. CAL FIRE is responsible for the implementation of state-legislated fire safety standards and conducts fuel management activities and also performs annual inspections. By law, CAL FIRE policy requires CAL FIRE to respond to and abate any uncontrolled fire that threatens to destroy life, property, or natural resources.

California Fire Code

The California Fire Code (CFC) provides regulations that relate to the construction, maintenance, and the general use of buildings. The CFC discusses such issues as emergency vehicle and personnel access, hydrants, automatic sprinkler systems, fire alarm systems, safety for fire and explosion hazards, the storage and use of hazardous materials, provisions related to the assistance and protection of fire responders, industry, and several additional general and specific requirements involving fire safety in and around new and existing buildings. The CFC provides specialized technical regulations concerning personal and general fire safety.

State Public Park Preservation Act

Under the Public Resource Code, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

Local

Tuolumne County General Plan

Public services are addressed in the Tuolumne County General Plan. Fire and police services are addressed in the Public Safety Element, and parks are addressed in the Parks and Recreation Element. Applicable policies from each of these elements are listed below.

Public Safety Element

Policy 9.A.1: Actively involve fire protection agencies within Tuolumne County in land use planning decisions.

Policy 9.D.4: Require new development to be designed so as to discourage criminal activity

Implementation Program 9.D.h: Actively involve the Tuolumne County Sheriff's Office in the review of land development applications and incorporate law enforcement recommendations as conditions of land use entitlements.

Policy 9.E.2: Maintain adopted levels of fire protection service.

Policy 9.E.3: Require new development to be consistent with State and County regulations and policies regarding fire protection.

Policy 9.G.1: Determine the impact proposed development will have on the provision of fire protection services and maintain the established level of service as outlined in the current Tuolumne County Fire Department Service Level Stabilization Plan.

Policy 9.H.2: Enforce the provisions found in Title 15 of the Tuolumne County Ordinance Code and the California Fire Code for built-in fire suppression equipment in all new development in order to improve fire safety and offset the need for increased fire department staffing and equipment.

Parks and Recreation Element

Policy 11.B.3: Create convenient and safe opportunities for physical activity for residents of all ages and income levels

Policy 11.F.1: Distribute the cost of providing and maintaining new recreational facilities to visitors and County residents

3.7.4 Impacts and Mitigation Measures

Significance Criteria

Implementation of the project could have a significant impact on the environment if it would:

- 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 following public services:

- Fire Protection
 - Police Protection
 - Parks
- 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.
 - Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Assessment Methodology

Project impacts related to public services are evaluated based on information obtained from the Tuolumne County General Plan and from public service providers regarding service capabilities, service ratios, response times, and performance objectives. The project's consistency with the applicable goals, policies, and implementation programs of the Tuolumne County General Plan related to public services and recreation is also evaluated.

Impact Analysis

Impact 3.7-1: Implementation of the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

As discussed previously, wildland firefighting resources in the area are a mix of federal, state, and local resources. The USFS is responsible for providing wildfire protection to the project site through a cooperative agreement with CAL FIRE. The USFS maintains a fire station at the Groveland Ranger District office at Buck Meadows, which is located approximately 9.2 road miles west of the project site off of SR-120. The USFS and Yosemite National Park also jointly maintain a cooperative fire station at Hodgdon Meadow on Yosemite National Park, approximately 7.8 road miles from the project site.

The TCFD is responsible for providing structural fire protection and emergency medical services to the project site, though it also has wildland firefighting resources and can provide wildland fire protection as needed. The nearest TCFD firefighting resources are located at Fire Station 78 in Groveland, approximately 17 road miles west of the project site on SR-120.

Most of the project site was severely burned during the 2013 Rim Fire. Since that time, much of the lands adjacent to the project site have undergone roadside hazard tree removal, timber salvage, fuels management, and reforestation activities to remove excess dead and downed wood that resulted from the fire, and to restore fire-impacted landscapes where appropriate. Similar activities have taken place on the project site. A salvage of fire-killed trees was conducted on the project site in 2014. In areas where tree cover was lost, the landowner replanted trees or

facilitated successful natural reestablishment of young trees. However, in spite of these efforts, drought and decline of fire-damaged trees since the initial salvage has led to additional mortality of overstory trees. As a result, significant quantities of downed wood and standing snags remain on the site, and the site's wildfire risk continues to be high. Consequently, any development on the site would need to be preceded by an extensive timber salvage program, concurrent with implementation of a hazardous fuel reduction effort to make the site accessible and safe for use.

As discussed in Chapter 2, *Project Description*, timber management on the site will be the subject of a Timber Harvest Plan (THP), a draft of which is attached to this EIR in **Appendix J**. The THP is the environmental review document submitted by landowners to CAL FIRE that outlines what timber the landowner wants to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment. CAL FIRE has reviewed the proposed fuel breaks and other wildfire mitigation components of the project as they relate to the THP, and has determined that those plan elements would complement other fuel reduction work that is ongoing, completed, and planned in the vicinity, and that the proposed fuel breaks would help protect communities and critical infrastructure along the SR-120 corridor. CAL FIRE has determined that the plan is consistent with its Tuolumne-Calaveras Unit Pre-Fire Management Plan. See Appendix J for relevant correspondence with CAL FIRE on these matters.

In addition to the fuel reductions that would be undertaken as part of the THP, the project site would be subject to ongoing fuel and vegetation management treatments as prescribed in the project's Wildfire Mitigation Plan, described in detail in Chapter 2, *Project Description*. The plan would also be subject to review and approval by the TCFD in cooperation with CAL FIRE.

In addition to the THP and Wildfire Mitigation Plan, an Emergency Operations Plan also would be developed for the project and would be subject to review and approval by applicable emergency services providers. The Emergency Operation Plan is described in detail in Chapter 2, *Project Description*, and would include, among other components, an annual training program for all employees, covering the Emergency Operation Plan and issues such as response to fire, fire extinguisher and firehose use, first aid and emergency medical response; an orientation briefing for guests concerning potential hazards and what to do in the event of an emergency incident; provision of a site fire and emergency alert system to notify site occupants in the event of an emergency; and a site evacuation plan, defining routes of ingress and egress, rally points, and protocols for disabled guests and/or guests without their own transport.

In addition to the aforementioned project-specific plan and procedures, the project would need to be consistent with applicable Tuolumne County General Plan policies, including Policy 9.A.1, which requires the active involvement of fire protection agencies within Tuolumne County in land use planning decisions; Policy 9.E.3, which requires new development to be consistent with State and County regulations and policies regarding fire protection; Policy 9.G.1, which requires the County to determine the impact proposed development will have on the provision of fire protection services and maintain the established level of service as outlined in the current Tuolumne County Fire Department Service Level Stabilization Plan; and Policy 9.H.2 which requires the County to enforce the provisions found in Title 15 of the Tuolumne County Ordinance Code and the California Fire Code for built-in fire suppression equipment in all new

development in order to improve fire safety and offset the need for increased fire department staffing and equipment.

The EIR for the County's General Plan Update assumed full buildout within the County under current land use and zoning designations, which would include the Commercial Recreation uses proposed for the project site. The EIR concluded that development facilitated by the Plan would not require new or expanded fire facilities. The EIR determined that review of subsequent development by the TCFD pursuant to existing County development review practices would ensure that potential impacts would be less than significant (Tuolumne County, 2018a).

The TCFD has reviewed the project and has confirmed that the project as-designed will meet its requirements for fire prevention. As mentioned previously, CAL FIRE has also determined that the fuel modifications proposed for the project would represent an improved condition that would help protect communities and critical infrastructure along the SR-120 corridor, and that the modifications are consistent with its Tuolumne-Calaveras Unit Pre-Fire Management Plan. Fire and emergency response times to the site would continue to be dependent on travel distance from the nearest available resource to the site, as is the case currently in the more rural areas of the County. Consistent with the findings of the County's General Plan Update EIR, TCFD has indicated that fire protection services can be provided to the project without the need for additional personnel or new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.⁷

Consequently, project adherence to the requirements of the THP, Wildfire Mitigation Plan, Emergency Operation Plan, and applicable County policies related to fire protection, combined with the TCFD's confirmation that it can provide fire protection services to the project without the need for additional personnel or new or physically altered fire protection facilities, would ensure that this impacts related to the provision of fire protection services would be **less than significant**.

Mitigation Measure

None required.

Impact 3.7-2: Implementation of the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

As previously discussed in the Environmental Setting, the TCSO station nearest to the project site is located at 28 North Lower Sunset Drive in Sonora, approximately 44 road miles northwest of the project site. The TCSO currently has a total of 135 authorized positions, including 63 Patrol

⁷ Personal communication via phone call with Andy Murphy, CAL FIRE Assistant Chief (with collateral duties with Tuolumne County Fire Department and Groveland Community Services District). April 15, 2020.

Deputies and 38 Adult Detention Deputies. Additional law enforcement services in the area are provided by CHP, which maintains its principal office at 18437 Fifth Avenue, in Jamestown, approximately 41 road miles northwest of the project site.

Construction of the project could result in accidents or emergency incidents that would require police services. However, construction activities would be short-term and limited in scope, and would not require the need for new police personnel or facilities.

Operation of the project also could result in accidents or emergency incidents requiring police services. However, these are expected to be similar in frequency and nature to that which already occurs in the vicinity. In addition, the project would be consistent with applicable Tuolumne County General Plan policies, including Policy 9.D.4, which requires new development to be designed so as to discourage criminal activity and Implementation Program 9.D.h, which requires the active involvement of the Tuolumne County Sheriff's Office in the review of land development applications and incorporation of law enforcement recommendations as conditions of land use entitlements.

The TCSO has reviewed the project and has confirmed that police protection services can be provided to the project without the need for additional personnel or new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. Response times to the site would continue to be dependent on travel distance from the nearest available resource to the site, as is the case currently in the more rural areas of the County.⁸

Consequently, project consistency with applicable County policies related to fire police protection, combined with the TCSO's confirmation that it can provide police protection services to the project without the need for additional personnel or new or physically altered police facilities, would ensure that this impacts related to the provision of police protection services would be **less than significant**.

Mitigation Measure

None required.

Impact 3.7-3: Implementation of the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park or recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

Tuolumne County and the project vicinity are primarily rural. Existing recreation in the vicinity of the project site includes Yosemite National Park, the Stanislaus National Forest, as well as local parks, including Westside Memorial Park, Eproson Park, and Mary Laveroni Community Park.

⁸ Personal communication with Undersheriff Neil Evans, April 9, 2020.

The project would develop 99 luxury camp sites to meet expanding demand for lodging facilities in the region. The proposed campsites and associated facilities would be open to the public to provide additional recreation for County residents and the area's tourist population.

No additional off-site parks or recreational improvements are proposed or required as part of the project. The physical effects of construction and operation of the project are analyzed and evaluated in the applicable technical sections of this EIR.

The project has been designed to provide visitors with recreational opportunities within the designated campground areas. The project would provide on-site facilities for its guests and would not significantly increase the usage or the physical deterioration of surrounding recreational areas or facilities. The project is intended to accommodate visitors and tourists that are already in the project vicinity.

Consequently, implementation of the project would not be anticipated to result in substantial adverse physical impacts associated with the provision of new or physically altered park or recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

The impact of the project on fire protection services, police protection services, and park and recreation services must be analyzed in conjunction with past, present, and future development projects which, combined with the proposed project, could result in cumulative impacts.

Projects considered in the cumulative analyses include the following:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.
- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.

- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

Impact 3.7-4: Implementation of the project, in conjunction with other development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

The project and all development projects in Tuolumne County must be consistent with applicable Tuolumne County General Plan policies pertaining to fire protection, including Policy 9.A.1, which requires the active involvement of fire protection agencies within Tuolumne County in land use planning decisions; Policy 9.E.3, which requires new development to be consistent with State and County regulations and policies regarding fire protection; Policy 9.G.1, which requires the County to determine the impact proposed development will have on the provision of fire protection services and maintain the established level of service as outlined in the current Tuolumne County Fire Department Service Level Stabilization Plan; and Policy 9.H.2 which requires the County to enforce the provisions found in Title 15 of the Tuolumne County Ordinance Code and the California Fire Code for built-in fire suppression equipment in all new development in order to improve fire safety and offset the need for increased fire department staffing and equipment.

The EIR for the County's General Plan Update assumed full buildout within the County under current land use and zoning designations, which would include the Commercial Recreation uses proposed for the project site. The EIR concluded that development facilitated by the Plan would not require new or expanded fire facilities. The EIR determined that review of subsequent development by the TCFD pursuant to existing County development review practices would ensure that potential impacts would be less than significant (Tuolumne County, 2018a).

The TCFD has reviewed the project and has confirmed that the project as-designed will meet its requirements for fire prevention. As mentioned previously, CAL FIRE has also determined that the fuel modifications proposed for the project would represent an improved condition that would help protect communities and critical infrastructure along the SR-120 corridor, and that the modifications are consistent with its Tuolumne-Calaveras Unit Pre-Fire Management Plan. Fire and emergency response times to the site would continue to be dependent on travel distance from the nearest available resource to the site, as is the case currently in the more rural areas of the County.

Consistent with the findings of the County's General Plan Update EIR, TCFD has indicated that fire protection services can be provided to the project without the need for additional personnel or new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. Per the requirements of the General Plan, other cumulative projects would also be required to conform to these same requirements, as outlined above.

Consequently, the cumulative impact of the project, when combined with other past, present, and reasonably foreseeable projects, would be **less than significant**.

Mitigation Measure

None required.

Impact 3.7-5: Implementation of the project, in conjunction with other development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

As discussed previously in the Environmental Setting, the TCSO provides police protection services to the County. The TCSO currently has a total of 135 authorized positions, including 63 Patrol Deputies and 38 Adult Detention Deputies.

The past, present, and reasonably foreseeable future conditions of the project site and vicinity are considered for the cumulative analysis of police protection services. Projects considered in the cumulative analysis include the Terra Vi Lodge Yosemite project, the Berkeley Tuolumne Restoration project, and the Thousand Trails/Yosemite Lakes RV expansion project described above.

The project and all development projects in Tuolumne County are subject to compliance with applicable Tuolumne County General Plan policies pertaining to police protection, including Policy 9.D.4, which requires new development to be designed so as to discourage criminal activity and Implementation Program 9.D.h, which requires the active involvement of the Tuolumne County Sheriff's Office in the review of land development applications and incorporation of law enforcement recommendations as conditions of land use entitlements.

TCSO has reviewed the project and has confirmed that police protection services can be provided to the project without the need for additional personnel or new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. Response times to the site would continue to be dependent on travel distance from the nearest available resource to the site, as is the case currently in the more rural areas of the County. Per the requirements of the General Plan, other cumulative projects would also be required to conform to the same requirements, as outlined above. Consequently, the cumulative impact of the project, when combined with other past, present, and reasonably foreseeable projects, would be **less than significant**.

Mitigation Measure

None required.

Impact 3.7-6: Implementation of the project, in conjunction with other development, would not result in substantial adverse physical impacts associated with the provision of new or physically altered recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. (*Less than Significant*)

As discussed in Impact 3.7-3, the project has been designed to provide visitors with recreational opportunities within the designated campground areas. The project would provide on-site facilities for its guests and would not significantly increase the usage or the physical deterioration of surrounding recreational areas or facilities.

In addition, Tuolumne County General Plan Policy 11.E.1, directs the County to maintain and update, as necessary, the Tuolumne County Ordinance Code sections pertaining to land dedications and/or payment of in-lieu fees for new residential development consistent with Government Code Section 66477 (also referred to as the Quimby Act), which authorizes the County to impose in-lieu fees or to require the dedication of land, or both, for park or recreation purposes, including the development of new parks or refurbishing of existing park or recreation facilities.

Consequently, because the project would not generate any residential population that would increase demand for park and recreation facilities, would provide on-site facilities for its guests, and would not significantly increase the usage or the physical deterioration of surrounding recreational areas or facilities, and because new residential development within the County would be required to dedicate land or pay in-lieu fees for the development of new parks or refurbishing of existing park or recreation facilities, cumulative impacts related to parks and recreation would be **less than significant**.

Mitigation Measure

None required.

3.7.5 References

National Park Service (NPS), 2019. Yosemite Guide. Available:

<https://www.nps.gov/yose/planyourvisit/brochures.htm>. Accessed October 22, 2019.

Stanislaus National Forest, 2020. Fire Management Website. Available:

<https://www.fs.usda.gov/main/stanislaus/fire>. Accessed May 1, 2020.

Tuolumne County, 2013. Find Your Fire Station – Groveland Station 78. Available:

<https://www.tuolumnecounty.ca.gov/832/Find-Your-Fire-Station#78>. Accessed October 18, 2019.

———, 2018a. Draft Recirculated Environmental Impact Report for the Tuolumne County General Plan Update Project, State Clearinghouse No. 2015082027. Available:

<https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11308/Tuolumne-County-GPU-Recirculated-DEIR-full-report>. Accessed October 14, 2019.

———, 2018b. Sheriff’s Office. Available: <https://www.tuolumnecounty.ca.gov/341/Sheriffs-Office>. Accessed June 28, 2018.

———, 2020. Tuolumne County Fire Department Website. Available: <https://www.tuolumnecounty.ca.gov/832/Find-Your-Fire-Station#78>. Accessed May 1, 2020.

Twain Harte, 2019. Parks and Recreation Services – Eproson Park. Available: <https://www.twainhartecsd.com/parks-and-recreation-services>. Accessed October 22, 2019.

United States Department of Agriculture (USDA) Forest Service, 2019. Stanislaus National Forest. Available: <https://www.fs.usda.gov/main/stanislaus/home>. Accessed October 22, 2019.

3.8 Transportation

3.8.1 Introduction

This section assesses potential effects on traffic and transportation that could result from implementation of the project. The section includes relevant baseline information, including a description of existing transportation facilities and services in the vicinity.

3.8.2 Environmental Setting

Roadways

The project site is currently undeveloped, and contains no established roadways or other transportation facilities. Existing public roadways in the vicinity include State Route 120 (SR-120), which fronts the project site along its northern boundary, and Hardin Flat Road, which generally fronts the project site along its eastern boundary. Other unimproved dirt tracks are present on Stanislaus National Forest lands to the west and east, and provide access to Forest lands for purposes of recreation and forest management activities.

SR-120 is a two-lane rural expressway that serves as the primary recreational route for tourists visiting Yosemite National Park. SR-120 in the vicinity of the project site is classified as an Other Principal Arterial, and is a High Emphasis interregional roadway. Although the highway allows for bicycle use, bike and pedestrian facilities are not provided, nor planned for, on this highway segment (California Department of Transportation [Caltrans], 2011). The average annual daily traffic (AADT) on SR-120 in the vicinity of the project site is approximately 3,900 vehicles (Caltrans, 2017).

Hardin Flat Road (also known as Packard Flat Road on some area maps) is a single-lane paved roadway that begins from SR-120 near the northeast corner of the project site. The roadway travels generally southwards and eastwards, and provides access to several private recreational campgrounds and other private land parcels in Hardin Flat alongside the South Fork of the Tuolumne River and surrounding areas. The road eventually reconnects with SR-120 about five miles east of where it left the highway. Hardin Flat Road is generally maintained at a paved width of 20 feet. The roadway is not classified in the Tuolumne County General Plan (arterial, collector, etc.), and therefore falls within the Local Roads category. Local roads are those County roads not classified under the Arterial or Collector categories. The local road system primarily provides direct access to residential property and other areas which are not directly served by the collector or arterial system, and are not intended for use in long distance travel. Local roads make up a major portion of the County's Road System, accounting for approximately 404 miles (Tuolumne County, 2018a).

Transit Services

The Yosemite Area Regional Transportation System (YARTS) offers a public transit service during the summer months (seven days a week from May through September) along SR-120, and travels from Sonora through Jamestown, Groveland, Buck Meadows, Hardin Flat, and the Yosemite Valley. If traveling east, the route leaves SR-120 and turns south onto Hardin Flat

Road, passing alongside the project site's eastern boundary, and then proceeds to Hardin Flat before rejoining SR-120 via Yosemite Lakes Road. The nearest current stop to the project site is at the Yosemite Lakes Campground at Yosemite Lakes Drive in Hardin Flat, about 1.1 miles down Hardin Flat Road from the project site. Based on its published schedule for 2020, YARTS operates hourly headways in the AM hours during the peak season (May 25 through August 31), with eastbound AM stops at Yosemite Lakes Campground at 8:47, 9:47, and 10:47; and westbound PM stops at 4:59, 5:29, and 6:29 (published schedule for 2020) (YARTS, 2020).¹

In its 2018 Short Range Transit Plan (YARTS, 2018), YARTS noted that in July, 2017, the busiest month of service, the overall load factor on the Route 120 line was 56 percent on weekdays and 47 percent on weekends.² The busiest weekday runs were the eastbound run departing Sonora at 6:40 AM (75 percent load factor), while the busiest westbound run was the 4:00 departure from Yosemite Valley (61 percent load factor). Only one run had reservations reaching the maximum allowed reservation (Run 1 on Labor Day).

Bicycle and Pedestrian Facilities

Although area roadways in the project vicinity allow for bicycle use, there are no designated bicycle or pedestrian facilities provided, and none are planned.

3.8.3 Regulatory Framework

Development within the project site boundaries must comply with applicable federal, state, regional, and local regulations. This section discusses these requirements to the extent that they would affect the way development would occur with the project.

Federal

There are no federal regulations concerning traffic or transportation that are applicable to the project.

State

California Department of Transportation Concept Reports

Caltrans is responsible for the planning, design, construction, operation, and maintenance of all state-owned roadways, including those in Tuolumne County. SR-120, which passes along the project site's northern frontage, is under the jurisdiction of Caltrans. Transportation Concept Reports (TCRs) have been completed by Caltrans for the state highway system serving Tuolumne County. TCRs are long range planning documents that are completed for each state highway route, and that identify existing route conditions and future needs. Each TCR includes a route summary, segment summaries, existing and forecasted travel data, route maps, and a list of planned, programmed, and needed projects for each highway over the next twenty years. TCRs identify how a highway will be developed and managed so that it delivers a targeted concept

¹ As of the end of May, 2020, YARTS summer service was postponed until further notice due to the COVID-19 pandemic. Nevertheless, the published YARTS schedules for 2020 are indicative of the typical service that would otherwise be available under normal circumstances.

² Load factor is the percentage of seats occupied by passengers.

Level of Service (LOS) that is feasible to attain over a 20-year planning horizon. The TCR for SR-120 indicates that the targeted LOS of the highway in rural areas is LOS C (Caltrans, 2011).

California Department of Transportation Statewide Transportation Improvement Program

The California Statewide Transportation Improvement Program (STIP) is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, and metropolitan plans. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations and Regional Transportation Planning Agencies. The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the U.S. Code.

California Department of Transportation Interregional Transportation Improvement Program

Caltrans' five-year Interregional Transportation Improvement Program is prepared pursuant to Government Code Section 14526, Streets and Highways Code Section 164, and the California Transportation Commission's STIP Guidelines. Regional agencies work with Caltrans to identify projects that will address improvements to the interregional transportation system and improve the movement of people, vehicles, and goods between regions.

Local

Regional Transportation Plan

The Tuolumne County Transportation Commission (TCTC) serves as the state-designated Regional Transportation Planning Agency. As mandated by Chapter 2.5, Section 65080, et seq., of the California Government Code, each Regional Transportation Planning Agency must prepare a RTP by September 1, every five years. The 2016 RTP was completed and adopted by TCTC in 2017. The 2016 RTP is a vision, policy, action, and financial plan that is focused on the future transportation needs of Tuolumne County for the next 25 years. The RTP focuses on transportation, and the movement of people and goods for purposes such as working, shopping, school, or recreation, by means of autos, trucks, buses, trains, planes, bicycling, or walking. The RTP must balance transportation priorities with anticipated funding because the RTP is a financially constrained document. A Financially Constrained Expenditure Plan Capital Improvement Program (FCEP-CIP) was included in the 2016 RTP. The County's General Plan and the RTP are intended to be consistent with one other.

Tuolumne County Traffic Impact Mitigation Fee Program

As a condition of approval for all project types (with limited exceptions), Tuolumne County Ordinance Code Chapter 3.54 requires that all new development contribute to transportation improvements and maintenance through payment of fees. The TIMF for the project would be calculated using the recreational project type rate. The recreational project type TIMF rate is currently \$885 per parking space (Tuolumne County, 2018b). The fee is updated regularly. Because the project would not be open every day of the year, the TIMF would be prorated for the number of days per year that the facility would be operational. The project would be conditioned

to pay all applicable TIMFs prior to issuance of a Certificate of Occupancy from the Building and Safety Division of the Community Resource Agency.

Tuolumne County General Plan

Transportation is addressed in the Tuolumne County General Plan in the Transportation Element. Applicable policies from the Transportation Element are listed below.

Policy 4.A.1: Support and work with the TCTC to regularly conduct assessments of the current status of the highway system to determine the current level of needs in the system, and report those needs to the Board of Supervisors.

Implementation Program 4.A.b: Develop and manage the County's roadway system to maintain the following minimum levels of service (LOS) using methodology adopted by the Tuolumne County Transportation Council: Local Roads, LOS C.

Policy 4.A.2: Dedicate, widen and construct roads according to design and access standards generally defined in Chapter 4 of the General Plan Technical Background Report and, more specifically, the County Ordinance Code and the Countywide Traffic Circulation Improvement Program. Exceptions to these standards may be necessary and shall be approved by the Community Resources Agency Director, who shall ensure that safe and adequate public access and circulation are preserved by such exceptions.

Policy 4.A.5: Consider the traffic impacts of development in relation to General Plan growth policies and require new development to provide mitigation for its fair share of impacts to the County's transportation system. Assess the needs of street and road users regularly through the land development application review process.

Implementation Program 4.A.q: Evaluate the impacts of new development on the County's transportation system and require such development to provide mitigation for its fair share of the impact. New development that is determined by the County to create or exacerbate an identified deficiency in the transportation system may not be approved if a plan and funding program to provide needed roadway improvements have not been approved and if the mitigation provided by the development will not correct the deficiency or if it will create an additional burden on County transportation funds. This implementation program shall not apply to new development for which the County makes a finding of overriding considerations for traffic impacts related to the new development in accordance with the California Environmental Quality Act.

Policy 4.A.6: Strive to maintain all components of the transportation system at adopted level of service standards.

Implementation Program 4.A.t: Require new development to mitigate that development's impacts on the local and regional transportation system through the fair share contribution of improvements to the master planned system and/or the payment of Traffic Impact Mitigation Fees. Exceptions to the payment of traffic impact mitigation fees may apply to land uses listed in the Traffic Impact Mitigation Fee.

Policy 4.B.1: Develop a modern transportation system that incorporates alternative transportation modes into the system design.

Implementation Program 4.B.a: Strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.

Implementation Program 4.B.b: Plan for a balanced multimodal transportation network that meets the needs of all users of roads, including bicyclists, pedestrians, and transit users. Incorporate bicycle, pedestrian and transit improvements when designing roadway improvements where appropriate.

Implementation Program 4.B.c: Provide multi-modal access to activity centers such as public facilities, commercial centers and corridors, employment centers, transit stops, schools, parks, recreation areas, and tourist attractions.

Policy 4.C.6: Support street designs that accommodate transit facilities and operations.

Policy 4.C.7: Support the use of public transit during emergency evacuations by coordinating efforts through the Emergency Operations Plan.

Tuolumne County VMT Implementation (Senate Bill 743)

Senate Bill (SB) 743 required the Governor’s Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. SB 743 was adopted with the intent to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.” When implemented, “traffic congestion shall not be considered a significant impact on the environment” within CEQA transportation analysis.

Regulatory changes to the CEQA Guidelines that implement SB 743 were approved on December 28, 2018. For land use projects, OPR identified vehicle miles traveled (VMT) per capita, VMT per employee, and net VMT as new metrics for transportation analysis. VMT is estimated by multiplying the number of daily vehicle trips generated by a project by the average trip length. VMT can be calculated using travel demand forecasting models and other accounting-type methods.

The statewide implementation date for the new VMT metric is July 1, 2020. VMT analysis procedures are currently being developed for the County as part of the Tuolumne County SB 743 VMT Study. It is anticipated that the County will adopt its VMT analysis methodology prior to the July 1, 2020 deadline.

3.8.4 Impacts and Mitigation Measures

Significance Criteria

Implementation of the proposed project could have a significant impact on the environment if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Result in inadequate emergency access?

Impact Assessment Methodology

At the time the transportation analysis was conducted for the Initial Study prepared for the project, site-specific trip generation rates were not available. The Institute of Transportation Engineers (ITE) Trip Generation Manual, which would normally be consulted to determine appropriate trip generation rates, does not have trip generation data/rates that fit with the unique characteristics of the Under Canvas product. For this reason, the trip generation characteristics for Yosemite Under Canvas were provided by Under Canvas based on their qualitative observations at similar existing (i.e., operational) facilities. Under Canvas estimated that peak period traffic generated by the project would occur between 7:30 and 10:30 a.m. and 5:00 and 10:00 p.m. During these periods, Under Canvas estimated that there could be up to 25 vehicles per hour leaving in the morning and up to 25 vehicles per hour arriving in the evening.

In the summer of 2019, ESA was contracted by Under Canvas to develop site specific trip generation estimates for typical Under Canvas camp sites. The reason for this effort was to provide more precise trip generation rates for the project. The results of this effort are documented in a memorandum titled, *Trip Generation for Under Canvas*, which was finalized on September 24, 2019 and is provided as **Appendix I** to this EIR.

Site-specific trip generations rates were calculated using traffic data collected at Under Canvas Grand Canyon, which is representative of a typical Under Canvas facility, with on-site features and operations that are consistent with those of the proposed Yosemite project. The results of the analysis indicated that each occupied tent generates 2.6 daily one-way (in or out of the site) vehicle trips, and less than one trip per hour for the peak hour of generator and the weekday AM and PM peak hours. This trip generation factor includes all trips in and out of the site, whether made by guests, employees, delivery vehicles, or other users at the site. Further detail regarding the methodology and findings is provided in Appendix I.

The aforementioned documentation indicates that the project would generate approximately 260 trips per day at full occupancy (2.6 trips per tent x 99 tents = 257.4 average daily trips). Tuolumne County requires that a traffic study be prepared only if a project is projected to generate more than 500 trips per day (Tuolumne County, 2013), and since the project would only generate about half that amount even at full occupancy, a traffic study was not prepared. Caltrans requirements for the preparation of a traffic study for projects that could affect their facilities (in this case, SR-120) were also not triggered (Caltrans, 2002).³ As such, the discussion of potential transportation and traffic impacts provided below is largely qualitative.

³ As stated in the *Caltrans Guide for the Preparation of Traffic Impact Studies* (December 2002), the Caltrans threshold for a facility operating at LOS C or D, such as SR-120, is 50-100 peak hour trips. Under Canvas Yosemite would generate well under that amount.

ESA contracted with Wood Rodgers to complete a VMT analysis for the project, and that analysis is provided in **Appendix I** of this EIR. In the absence of an adopted County policy regarding VMT analysis and thresholds (see Section 3.8.3, Regulatory Framework), the methodology used to analyze VMT for the project is based on threshold guidance provided in the Governor’s Office of Planning and Research’s (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR, 2018), and the best and most current VMT data available as calculated by the Tuolumne County Regional Travel Demand Model (RTDM). OPR’s recommended threshold for residential, office, and retail uses provides that any project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. For other land uses, OPR recommended that lead agencies utilize the thresholds noted above, but noted that lead agencies may also develop thresholds of their own, so long as those thresholds consider the overall purpose and intent of SB 743, which was to reduce VMT. In the absence of an adopted County threshold, this analysis uses OPR’s threshold for residential, office, and retail uses, as outlined above.

Impact Analysis

Impact 3.8-1: Implementation of the project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. (*Less than Significant*)

Construction Transportation Impacts

Site development activities would be preceded by a timber salvage program, concurrent with implementation of a hazardous fuel reduction effort to make the site accessible and safe for use. Following this preliminary site preparation, construction of the campground facility itself would commence. The site plans are based on minimal site disturbance based on seasonal occupancy. Few permanent or “hard” facilities would be present. Tent pads would require minimal excavation, and most project facilities (guest tents, lobby tent, kitchen and bathroom facilities) would be hauled into the site on a seasonal basis. Owing to the low-impact and temporary nature of the project elements, the number of construction trips required would be substantially lower than that needed for a more traditional development project. Accordingly, the number of trips added to the area roadway system during construction would be negligible, especially when considered as a ratio against existing traffic levels.

Operational Transportation Impacts

In its operational phase, the project would not result in significant impacts to level of service (LOS) along SR-120 or Hardin Flat Road.⁴ SR-120 in the vicinity of the project currently operates at LOS C (Caltrans, 2011). As noted previously, the project trips would generate a total of approximately 260 vehicle trips per day. These project-generated vehicle trips would represent about 6.7 percent of average daily traffic volumes on SR-120 in the area of the project site, which is within the range of typical daily variation in traffic levels that might be expected on these facilities. These considerations indicate that roadway operating conditions would remain substantially similar to current conditions and the LOS would not deteriorate. In addition, the number of average daily

⁴ LOS is a qualitative measure of traffic operating conditions. LOS A through F are assigned to an intersection or roadway segment, with LOS A indicating very good operations with little congestion and LOS F indicating poor operations with heavy congestion.

trips indicated above does not take into account any trip reductions that would be realized by the project's provision of a YARTS transit stop at the project's frontage with Hardin Flat Road. While it would require speculation to predict the ratio of project guests that would avail themselves to YARTS service to visit Yosemite National Park or other locations in lieu of driving their own personal vehicles, it is reasonable to assume that the number of guests and employees that would do so could be substantial, with a subsequent reduction in daily personal vehicle trips realized beyond the low level of trips already discussed. Utilization of YARTS service by project guests would also lessen the number of personal vehicle trips into popular areas, such as Yosemite National Park. The Tuolumne County Board of Supervisors has determined that projects may contribute cumulatively to the significant adverse impacts on the County's circulation system. As a condition of approval for all project types (with limited exceptions), Tuolumne County Ordinance Code Chapter 3.54 requires that all new development contribute to transportation improvements and maintenance through payment of fees. The TIMF for the project would be calculated using the recreational project type rate. The recreational project type TIMF rate is currently \$885 per parking space (Tuolumne County, 2018b). Because the project would not operate every day of the year, the TIMF would be prorated for the number of days per year that the facility would be operational. The project would be conditioned to pay all applicable TIMFs prior to issuance of a Certificate of Occupancy from the Building and Safety Division of the Community Development Department.

The project would conform to applicable policies in the County's General Plan. The project would not result in a worsening of LOS performance criteria for SR-120 and other area roadways (Policies 4.A.1 and 4.A.6); the project would pay fees to offset its impacts to the area's transportation system (Policy 4.A.5); the project's internal roadways and intersections with public roadways would be designed in accordance with applicable standards to provide safe and efficient access to, through, and from the site (see Section 2.4.2 of this EIR, *Access and Internal Circulation*) (Policy 4.A.2); the project would integrate YARTS transit into its design by providing turnout facilities and a bus stop at the project frontage along Hardin Flat Road (see Section 2.4.2 of this EIR, *Access and Internal Circulation*) (Policies 4.B.1 and 4.C.6); and provision of transit access to and from the site would enable such use in an emergency evacuation (Policy 4.C.7).

Based upon each of these considerations, as well as the payment of applicable TIMF fees as a condition of project approval, the impacts of the project with respect to conflicts with an adopted transportation policy or plan would be **less than significant**.

With respect to the project's impact to YARTS transit services, in its 2018 Short Range Transit Plan (YARTS, 2018), YARTS noted that in July, 2017, the busiest month of service, the overall load factor on the Route 120 line was 56 percent on weekdays and 47 percent on weekends. The busiest weekday runs were the eastbound run departing Sonora at 6:40 AM (75 percent load factor), while the busiest westbound run was the 4:00 departure from Yosemite Valley (61 percent load factor). Only one run had reservations reaching the maximum allowed reservation (Run 1 on Labor Day). The Plan concluded that existing ridership figures did not indicate a strong need for additional capacity. Nevertheless, there is the potential that the project's contribution to YARTS ridership, together with other proposed projects along the SR-120 corridor, could occasionally result in an increase in ridership demand that could exceed seating capacity on several runs per season. Based upon this consideration, this impact would be considered **potentially significant**.

Implementation of **Mitigation Measure 3.8-1** would reduce potential impacts to YARTS service to **less than significant**.

Mitigation Measure

Mitigation Measure 3.8-1: During periods of peak visitation, Under Canvas staff shall coordinate with the Yosemite Area Regional Transportation System (YARTS) to identify transit runs where transit demand may exceed capacity. On those dates, and for those runs where such an exceedance is expected, Under Canvas staff will recommend alternative departure times for guests to help avoid overcrowding during the identified runs.

Impact 3.8-2: Implementation of the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (*Less than Significant*)

A detailed analysis of project VMT is provided in Appendix I of this EIR, and is summarized below.

Net Change in Total VMT

Net change in Countywide VMT due to the project was calculated for Year 2020 and Year 2040 scenarios by comparing the “Without Project” and “With Project” total VMT generated by County land uses using the RTDM. The VMT analysis was performed for annual average weekday daily conditions, which reflects the assumptions that the project would only operate seven months out of the year and would experience an average occupancy of approximately 85 percent. Furthermore, project-generated VMT was adjusted to reflect the location of the project site adjacent to the proposed YARTS bus stop at the project entrance. The annual average VMT is summarized below in **Table 3.8-1**.

**TABLE 3.8-1
 ANNUAL AVERAGE VMT SUMMARY**

2020 Without Project Total VMT Generated by County Land Uses	3,374,574
2020 With Project Total VMT Generated by County Land Uses	3,376,495
2020 Net Change in Total VMT Generated by County Land Uses	+1,921
2040 Without Project Total VMT Generated by County Land Uses	3,806,308
2040 With Project Total VMT Generated by County Land Uses	3,808,235
2040 Net Change in Total VMT Generated by County Land Uses	+1,927

NOTES: All data is estimated from the Tuolumne County Regional Travel Demand Model, standard Tuolumne County post-processing methodologies, and YARTS ridership data from Tuolumne County.

As part of the Tuolumne County SB 743 VMT Study, which is currently being developed, the County was divided into nine subareas based on proximity and travel characteristics. The project is located in the East County subarea. The methodology used to evaluate whether the project would result in a significant VMT impact first estimated the existing average total campground VMT per campsite in the East County subarea of Tuolumne County using the RTDM. Second, a VMT per campsite threshold of 15 percent below the existing subarea average was selected, with the intent of

encouraging new campgrounds in the region, such as the project, to generate lower VMT per visitor, since providing lodging opportunities closer to area attractions such as Yosemite National Park would have the effect of lessening VMT to and from those attractions. The 15 percent-below threshold is consistent with guidance provided by OPR with respect to residential, office, and retail projects (OPR, 2018).

The existing average VMT per campsite in the East County subarea was estimated to be approximately 48.4 VMT per site. The project's VMT per campsite was estimated to be approximately 38.2 VMT per site, or approximately 21 percent less than the East County subarea average. Therefore, the project's total VMT per campsite would be more than 15 percent below the existing subarea average, and the impact would therefore be **less than significant**.

Impact 3.8-3: Implementation of the project would not substantially increase hazards due to a geometric design or incompatible uses. (*Less than Significant*)

The project would not involve redesign or reconfiguration of existing roadways. Primary access to the site would be taken from Hardin Flat Road, at a point approximately 800 feet south of Hardin Flat Road's intersection with SR-120. The distance between the project entrance and SR-120, together with the low traffic volumes generated by the project, would ensure that no backups onto SR-120 would occur. The project would not introduce any new types of vehicles, turning movements, or other features that would differ substantially from that which is already occurring. Based on each of these considerations, impacts from the project would be **less than significant**.

Mitigation Measure

None required.

Impact 3.8-4: Implementation of the project would not result in inadequate emergency access. (*Less than Significant*)

As detailed under Impact 3.9-1 of Section 3.9, *Wildfire*, of this EIR, the project proponent has committed to specific project design features that would assist in meeting the requirements of effective emergency access and evacuation, if needed. As described in Chapter 2, *Project Description*, suitable site ingress and egress would be available on the east side of the site from SR-120 via Hardin Flat Road, as well as a secondary point of access from adjacent federal lands on the northwestern side of the site. Internal roadways would be designed to accommodate large pieces of firefighting equipment such as water tenders, semi transports with dozers, and fire engines. All site roadways would be constructed to have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13.5 feet. For dead-end roadways in excess of 150 feet in length, a turnaround area for fire apparatus would be provided. These and other features would enable firefighters and other emergency responders to effectively access the site in the event of an emergency. These features would also enable an efficient exit of employees and guests in the event of an evacuation. Further, and as described in Chapter 2, *Project*

Description, the project would implement an Emergency Operations Plan, which would be subject to review and approval by applicable emergency services providers. The plan would include, at a minimum:

- A Training and Exercise Plan, to be implemented annually with all employees, covering the Emergency Operation Plan and issues such as response to fire, fire extinguisher and firehose use, first aid and emergency medical response, site evacuation, and dealing with problem guests.
- An orientation briefing for guests concerning potential hazards and what to do in the event of an emergency incident.
- Provision of a site fire and emergency alert system to notify site occupants in the event of an emergency.
- A site evacuation plan, defining routes of ingress and egress, rally points, and protocols for disabled guests and/or guests without their own transport.
- Establishment and maintenance of temporary refuge areas if evacuation is not possible.
- Establishment of a helicopter landing site, which could also be utilized for other facility functions requiring an unobstructed and open space.
- Basic fire and first aid training would be provided to all employees, with at least one employee onsite at any given time with advanced first aid training (EMT or similar).

Each of these features would ease access to and evacuation from the site in the event of an emergency. Based on each of these considerations, and with implementation of standard procedures and regulations regarding development review and oversight by applicable agencies, this impact would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

The impact of the project on transportation must be analyzed in conjunction with past, present, and future development projects which, combined with the proposed project, could result in cumulative impacts.

Projects considered in the cumulative analyses include the following:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost

during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.

- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.
- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

Impact 3.8-5: Implementation of the project, in conjunction with other development, would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. (*Less than Significant*)

The project and all development projects in Tuolumne County are subject to compliance with applicable Tuolumne County General Plan policies pertaining to transportation, including all of the policies listed previously under Impact 3.8-1. All projects would also be subject to payment of TIMF fees to offset their impacts to the transportation system. Based upon each of these considerations, as well as the payment of applicable TIMF fees as a condition of project approval, the impacts of the project with respect to conflicts with an adopted transportation policy or plan would be **less than significant**.

With respect to the project's cumulative impact to YARTS transit services, in its 2018 Short Range Transit Plan (YARTS, 2018), YARTS noted that in July, 2017, the busiest month of service, the overall load factor on the Route 120 line was 56 percent on weekdays and 47 percent on weekends. The busiest weekday runs were the eastbound run departing Sonora at 6:40 AM (75 percent load factor), while the busiest westbound run was the 4:00 departure from Yosemite Valley (61 percent load factor). Only one run had reservations reaching the maximum allowed reservation (Run 1 on Labor Day). The Plan concluded that existing ridership figures did not indicate a strong need for additional capacity. Nevertheless, there is the potential that the project's contribution to YARTS ridership, together with other proposed projects along the SR-120 corridor, could occasionally result in an increase in ridership demand that could exceed seating capacity on several runs per season. Based upon this consideration, this cumulative impact would be considered **potentially significant**. Implementation of **Mitigation Measure 3.8-1**, prescribed previously, would reduce potential impacts to YARTS service to **less than significant**.

Mitigation Measure

Implement **Mitigation Measure 3.8-1**.

Impact 3.8-6: Implementation of the project, in conjunction with other development, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (Less than Significant)

As shown in Table 3.8-1, the net change in total Countywide VMT due to the project is nearly identical in Year 2020 and Year 2040. Based on this, and the expectation that land use patterns in the East County subarea would remain similar in the future (i.e., recreational uses in a rural setting), the average East County VMT per campsite and the project-generated VMT per campsite would not be expected change substantially from those described under Impact 3.8-2. Therefore, the VMT per campsite with the project would be more than 15 percent below the existing subarea average, and the impact would be **less than significant**.

Impact 3.8-7: Implementation of the project, in conjunction with other development, would not substantially increase hazards due to a geometric design or incompatible uses. (Less than Significant)

All projects in the County undergo review and approval by applicable County agencies to ensure that development proceeds in accordance with applicable regulations and requirements. In the case of roadways, the Engineering Development Division reviews, conditions, and inspects development projects to ensure compliance with the County ordinance code, Board policy, and State and federal laws relating to roads and safety. The County's Traffic Signal and Safety Program includes monitoring traffic signals, traffic signage, engineering and traffic studies, traffic counts, and evaluation of road safety audits. Compliance with these and other requirements would ensure that other cumulative projects would not introduce design hazards to area roadways. Therefore, the impact would be **less than significant**.

Mitigation Measure

None required.

Impact 3.8-8: Implementation of the project, in conjunction with other development, would not result in inadequate emergency access. (Less than Significant)

As discussed under Impact 3.8-5, above, all projects in the County undergo review and approval by applicable County agencies to ensure that development proceeds in accordance with applicable regulations and requirements. In the case of roadways, the Engineering Development Division reviews, conditions, and inspects development projects to ensure compliance with the County ordinance code, Board policy, and State and federal laws relating to roads, safety, and emergency operations. The Tuolumne County Fire Department and the County Sheriff's Office review projects for fire protection and public safety purposes. Projects are reviewed for access and circulation requirements of emergency service providers, and recommendations are made and conditions imposed to ensure that effective access is provided. Compliance with these and other requirements would ensure that other cumulative projects would not result in inadequate emergency access. Therefore, the impact would be **less than significant**.

Mitigation Measure

None required.

3.8.5 References

California Department of Transportation (Caltrans), 2002. Caltrans Guide for the Preparation of Traffic Impact Studies. December 2002.

———, 2011. Transportation Concept Route State Route 120. California Department of Transportation, District 10 Office of System Planning and Goods Movement. January 2011.

———, 2017. 2016 Traffic Volumes on California State Highways. California Department of Transportation, Division of Traffic Operations.

Governor's Office of Planning and Research (OPR), 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018.

Tuolumne County, 2003. Tuolumne County Airport Land Use Compatibility Plan. Tuolumne County, California. Adopted by Tuolumne County Airport Land Use Commission. January 22, 2003. Prepared by: Shutt Moen Associates.

———, 2013. Tuolumne County General Plan and Regional Transportation Plan Evaluation and Analysis. Prepared for County of Tuolumne. Submitted by Rincon Consultants, Inc. July 2013.

———, 2017. Traffic Impact Mitigation Fee Schedule. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/9272/Traffic-Impact-Mitigation-Fees---17-18>. Accessed November 7, 2019.

———, 2018a. Tuolumne County General Plan Technical Background Report. Tuolumne County Community Resource Agency. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11753/Vol-II-TBR--Final>. Accessed November 8, 2019.

———, 2018b. Chapter 3.54 Traffic Impact Mitigation Fees.

Wood Rodgers, Inc., 2020. Draft Yosemite Under Canvas VMT Analysis. April 15, 2020.

Yosemite Area Regional Transit System (YARTS), 2018. Short Range Transit Plan. Prepared by LCS Transportation Consultants. December 3, 2018. Available at <http://yarts.com/wp-content/uploads/2019/04/YARTS-Short-Range-Transit-Plan-2019.pdf>. Accessed May 27, 2020.

———, 2019. Sonora-Groveland-Yosemite Valley Highway 120 Bus Schedule. Available: <https://yarts.com/routes-and-schedules/sonora-buck-meadows-yosemite-valley/>. Accessed May 14, 2020.

3.9 Wildfire

3.9.1 Introduction

This section assesses potential effects related to wildfire that could result from implementation of the project. The section includes relevant baseline information, including a description of existing fire protection, existing wildfire hazard conditions, and a description of potential impacts that could result from the project.

3.9.2 Environmental Setting

The project site is a private inholding within the Stanislaus National Forest, with surrounding National Forest System lands immediately adjacent to the west, south, and east. As is the case with all private land parcels in the vicinity, the site is located within a State Responsibility Area (SRA) for fire protection responsibility. The surrounding federal lands of the Stanislaus National Forest are designated as a Federal Responsibility Area (FRA). Through an agreement with the U.S. Forest Service (USFS), wildfire protection on SRA lands in the area is provided by the USFS (Murphy, 2020). Such arrangements are common in areas where relatively small and scattered private inholdings are present within much larger areas of federal land.

Wildfire Risk

As part of the Fire and Resources Assessment Program (FRAP), the California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards throughout the state. The maps classify lands into fire hazard severity zones, based on a hazards scoring system. The entirety of the project site is designated as a Very High Fire Hazard Severity Zone (CAL FIRE, 2007), as is the case with all of the other private lands in the vicinity. According to the CAL FIRE Fire and Resource Assessment Program, the project site is not within a mapped Priority Landscape for wildfire risk reduction treatments, which are lands that are prioritized for potential treatments to reduce wildfire risks based on threats to communities and forested lands. However, the project site and most of the surrounding area is mapped as a High Priority Landscape for restoration of forest ecosystem services damaged by wildfire, and also for restoration of pest and drought damaged areas (CAL FIRE, 2018).

Most of the project site was severely burned during the 2013 Rim Fire. Since that time, much of the lands adjacent to the project site have undergone roadside hazard tree removal, timber salvage, fuels management, and reforestation activities to remove excess dead and downed wood that resulted from the fire, and to restore fire-impacted landscapes where appropriate. Similar activities have taken place on the project site. A salvage of fire-killed trees was conducted on the project site in 2014. In areas where tree cover was lost, the landowner replanted trees or facilitated successful natural reestablishment of young trees. However, in spite of these efforts, drought and decline of fire-damaged trees since the initial salvage has led to additional mortality of overstory trees. As a result, significant quantities of downed wood and standing snags remain on the site, and the site's wildfire risk continues to be high.

Firefighting Resources

Wildland firefighting resources in the area are a mix of federal, state, and local resources. As stated previously, the USFS is responsible for providing wildfire protection to the project site through a cooperative agreement with CAL FIRE. The USFS maintains a seasonal fire station at the Groveland Ranger District office at Buck Meadows, which is located approximately 9.2 road miles west of the project site off of State Route 120 (SR-120). Resources at the facility include a Type 3 wildland firefighting engine and crew (Engine 42), as well as an Interagency Hotshot Crew (Groveland Interagency Hotshot Crew). Other resources at the facility include a water tender (Water Tender 42) and several patrol/utility vehicles (Stanislaus National Forest, 2020). The USFS and Yosemite National Park also jointly maintain a cooperative Type 3 engine (Engine 346) at Hodgdon Meadow on Yosemite National Park, approximately 7.8 road miles from the project site.

The Tuolumne County Fire Department (TCFD) is responsible for providing structural fire protection and emergency medical services to the project site, though it also has wildland firefighting resources and can provide wildland fire protection as needed. The TCFD is administered by CAL FIRE under a cooperative agreement with the County. TCFD is headquartered in Sonora and includes thirteen fire stations, with eight stations within unincorporated Tuolumne County. The nearest TCFD firefighting resources are located at Fire Station 78 in Groveland, approximately 17 road miles west of the project site on SR-120. Resources at the station include two Type 1 fire engines, one Type 2 engine, and one Type 3 engine (Tuolumne County, 2020).

The TCFD has mutual aid agreements with the Twain Harte Fire Protection District (FPD), Tuolumne City FPD, Columbia FPD, Sonora Fire Department, Groveland Community Services District, Strawberry FPD and the Tuolumne Rancheria Fire Department (Tuolumne County, 2018). In addition to these agreements, both CAL FIRE (and by extension, the TCFD) and the USFS have entered into various cooperative and fire assistance agreements with the U.S. Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs. Based upon these and other interagency agreements, most large wildfire events in the region are responded to by multiple agencies operating under the varying levels of the incident command structure, which is a standardized approach to the command, control, and coordination of emergency response providing a common hierarchy within which responders from multiple agencies can be effective.

3.9.3 Regulatory Framework

Development within the project site boundaries must comply with federal, state, regional, and local regulations. This section discusses these requirements as they apply to the project.

Federal

The project site is located within a State Responsibility Area for purposes of fire protection. As such, there are no federal regulations regarding wildfire that pertain to the project.

State

California Department of Forestry and Fire Protection

Title 14 of the California Code of Regulations (CCR), Division 1.5, establishes regulations for CAL FIRE in State Responsibility Areas (SRAs) where CAL FIRE is responsible for wildfire protection. These regulations constitute the basic wildland fire protection standards of the California Board of Forestry and Fire Protection. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in SRAs. Additionally, Title 14, Division 1.5, Chapter 7, Subchapter 2 sets forth the minimum standards for emergency access and egress (Article 2), signage (Article 3), water supply (Article 4), and fuel modification standards (Article 5) for lands within SRAs.

Emergency Services Act

Under the Emergency Services Act, Government Code Section 8550, et seq., the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving wildfire and other natural and/or human-caused incidents is an important part of the plan, which is administered by the Governor's Office of Emergency Services (OES). The office coordinates the responses of other agencies, including the California Environmental Protection Agency (CalEPA), the California Highway Patrol (CHP), regional water quality control boards, air quality management districts, and county disaster response offices.

California Fire Plan

The 2018 Strategic Fire Plan for California is the state's road map for reducing the risk of wildfire. By emphasizing fire prevention, the Fire Plan seeks to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The 2018 plan has eight principal goals: (1) analyzing fire risk; (2) supporting land use planning; (3) community preparedness planning; (4) public education; (5) integrating landowner fuels management; (6) identifying fire suppression resources; (7) increasing fire prevention efforts; and (8) post wildfire recovery.

California Public Resources Code

Fire Hazards Severity Zones – Public Resources Code sections 4201-4204

California Public Resources Code Sections 4201 through 4204 require CAL FIRE to prepare fire hazard severity zone maps for all lands within State Responsibility Areas. Each zone is to embrace relatively homogeneous lands and shall be based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified as a major cause of wildfire spread. CAL FIRE adopted Fire Hazard Severity Zone maps for State Responsibility Areas in November 2007. The project site is within a Very High Fire Hazard Severity Zone.

International Building Code

In January of 2008, California officially switched from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

Local

Tuolumne County General Plan

Wildfire is addressed in the Public Safety Element and the Natural Hazards Element of the Tuolumne County General Plan. Applicable policies and implementation programs from each of these elements are listed below.

Public Safety Element

Policy 9.A.1: Actively involve fire protection agencies within Tuolumne County in land use planning decisions.

Policy 9.E.2: Maintain adopted levels of fire protection service.

Policy 9.E.3: Require new development to be consistent with State and County regulations and policies regarding fire protection.

Policy 9.G.1: Maintain County fire protection regulations that are consistent with Section 4290 or the equivalent of the California Public Resources Code and other applicable fire protection regulations.

Natural Hazards Element

Policy 17.E.1: Reduce the exposure to risk from wildland fire to an acceptable level by only allowing development in high or very high fire hazard areas if it can be made safe by planning, construction, or other fire safety measures.

Implementation Program 17.E.a: Utilize the CAL FIRE Forest and Resource Assessment Program "Fire Hazard Severity Zone Map," including revisions thereto, as a basis for determining the significance of fire hazards when reviewing development applications.

Implementation Program 17.E.b: Recognize that new development, including urban or clustered development, is acceptable in moderate, high and very high fire hazard zones, provided that project design meets California Building and Fire Codes including Wildland-Urban Interface Building Codes. Such developments may be required to provide and maintain additional off-site fire defense improvements.

Implementation Program 17.E.c: Require new development to mitigate wildland fire hazards in such a manner that it minimizes the chance of wildland fire originating outside the development from entering the development and minimizes the chance of fire originating within the development escaping to adjoining property and adjacent wildland.

Implementation Program 17.E.d: Require developers to incorporate fire protection improvements into project designs where determined necessary by the Tuolumne County Fire Department and require maintenance of these improvements. Fuelbreaks, green belts, long-term comprehensive fuel management programs, access to developed water sources, strategic helispots (with water supply), and perimeter road systems can all serve to reduce the fire hazard on project sites as well as adjacent property.

Implementation Program 17.E.e: Require new development in areas subject to wildland fire to provide safe ingress and egress in accordance with Chapter 11.12 of the Tuolumne County Ordinance Code. Encourage new development that complies with Chapter 11.12 to provide multiple access routes, especially in very high fire hazard severity zones or where one access route is susceptible to closure by landslide, loss of a bridge or other cause.

Implementation Program 17.E.f: Support the efforts of the Tuolumne County Fire Department to prevent loss of life, property and resources. Refer land development applications which would permit structures in areas subject to wildland fire to the Tuolumne County Fire Department/CAL FIRE for review and identification of measures necessary to mitigate the fire hazard.

Implementation Program 17.E.g: Consult the U.S. Forest Service, National Park Service and other federal land management agencies regarding applications for development on privately owned lands located adjacent to or within these agencies' boundaries to obtain comments regarding the impact of the project on the wildland fire protection mission of that agency.

Implementation Program 17.E.h: Revise and enforce County fire protection regulations such that new development in areas subject to wildland fire provides for clearing adjacent to access roads in order to reduce radiant heat received by vehicles on the roadway and thereby facilitate safe evacuation of residents and response by emergency vehicles in the event of wildland fire.

Policy 17.E.2: Require the maintenance of defensible space setbacks in areas proposed for development if wildland fire hazards exist on adjacent properties.

Policy 17.E.3: Require new development to have adequate fire protection and to include, where necessary, design and maintenance features that contribute to the protection of the County from the losses associated with wildland fire.

Policy 17.E.7: Protect natural resources from the effects of wildland fire.

Policy 17.E.8: Require property owners to maintain wildlands in a fire resistant manner consistent with Section 4291 of the Public Resources Code. Assist fire protection agencies in their efforts to enforce Section 4291.

Tuolumne County Emergency Operations Plan

The Tuolumne County Emergency Operations Plan delineates the County's procedures and policies in response to a significant disaster, including extreme weather, flood or dam failure, earthquakes, hazardous materials, terrorism or civil disturbance, transportation accidents, and wildland fires. The Emergency Services Plan assists with emergency response through:

(1) establishing emergency response policy; (2) identifying authorities and assigns responsibilities for planning and response activities; (3) identifying the scope of potential hazards; (4) identifying other jurisdictions and organizations to coordinate planning with; (5) determining emergency organization structure; (6) establishing policies for providing emergency information to the public; (7) outlining preplanned response actions, describes the resources available to support response activities; (8) outlining actions to return County operations to normal; (9) guiding area governments through recovery; (10) establishing responsibilities within the County for the

maintenance of the overall emergency preparedness program; (11) outlining the process for ordering and rendering mutual aid; and (12) facilitating the continuity of governments.

Tuolumne County Community Wildfire Protection Plan

The Tuolumne County Community Wildfire Protection Plan was adopted in 2004. The Wildfire Protection Plan is used to guide wildfire prevention, protection, and suppression planning and includes the County's concept of pre-fire management, a description of the County, a discussion of the stakeholders, fuels, weather, level of service and assets at risk in the County; pre-fire management plans of fire protection agencies, fire safe councils and strategic groups in the County; and a discussion of the institutional issues related to implementation of this plan. The plan also addresses how agencies within the County are trying to mitigate wildfire hazards in the County. The overall goal of the plan is to reduce costs and losses from wildfire in the County by protecting assets at risk through focused pre-fire management prescriptions, enhancement of strategic fire defense systems and improved initial attack success.

3.9.4 Impacts and Mitigation Measures

Significance Criteria

Criteria within Appendix G of the CEQA Guidelines related to wildfire focus primarily on lands that are located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones. These conditions apply to the project site. As such, implementation of the project would have a significant impact on the environment if it would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan;
- 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;
- 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; or
- 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.

Impact Assessment Methodology

Impacts associated with wildfire are generally evaluated within the context of the effectiveness of standard wildfire risk abatement methods as they relate to the project site, as determined by site-specific conditions and circumstances. The general rule employed here is that if wildfire risk can be effectively lessened through implementation of standard regulatory requirements (e.g., compliance with Title 14 of the California Code of Regulations, adopted plans, etc.), then the impact would be less than significant.

Impact Analysis

Impact 3.9-1: Implementation of the project would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

The project area and surrounding vicinity are subject to a number of emergency response plans, most notably the Tuolumne County Emergency Operations Plan. These and other plans provide general frameworks and standard operating procedures by which emergency response agencies respond to emergencies such as wildfires. Impairment of these types of plans would occur if the project would introduce an undue or extraordinary burden on emergency responders as they respond to a wildfire incident. Common examples of such a situation include project placement and design that could preclude access by emergency responders or the orderly evacuation of a site in the event of a wildfire incident. Undersized roadways, underrated bridges and culverts, steep grades and pinch points, remoteness, and inadequate points of ingress and egress to and from a site are examples of the difficulties that firefighters can experience when responding to a wildfire in a rural area. Responding to a wildfire incident under these types of scenarios can result in an inordinate expenditure of personnel and equipment resources during a wildfire incident and/or an evacuation, which can be particularly problematic when those resources are also needed elsewhere during a large-scale and rapidly unfolding wildfire incident.

In the case of the project, the project proponent has committed to specific project design features that would help to avoid these types of constraints. As described in Chapter 2, *Project Description*, suitable site ingress and egress would be available on the east side of the site from SR-120 via Hardin Flat Road, as well as a secondary point of access using an existing roadway from adjacent federal lands on the western side of the site. Internal roadways would be designed to accommodate large pieces of firefighting equipment, such as water tenders, semi transports with dozers, and fire engines. In accordance with the requirements of Title 14 of the Public Resources Code, all site roadways would be constructed to have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13.5 feet. For dead-end roadways in excess of 150 feet in length, a turnaround area for fire apparatus would be provided. These and other project design features would enable firefighters to effectively access the site in the event of a wildfire emergency. These features also would enable an efficient exit of employees and guests in the event of an evacuation. Further, and as described in Chapter 2, *Project Description*, the project would implement an Emergency Operations Plan, which would be subject to review and approval by applicable emergency services providers. The plan would include, at a minimum:

- A Training and Exercise Plan, to be implemented annually with all employees, covering the Emergency Operation Plan and issues such as response to fire, fire extinguisher and firehose use, first aid and emergency medical response, site evacuation, and dealing with problem guests.
- An orientation briefing for guests concerning potential hazards and what to do in the event of an emergency incident.
- Provision of a site fire and emergency alert system to notify site occupants in the event of an emergency.

- A site evacuation plan, defining routes of ingress and egress, rally points, and protocols for disabled guests and/or guests without their own transport.
- Establishment and maintenance of temporary refuge areas if evacuation is not possible.
- Establishment of an emergency helicopter landing site, which also could be utilized for other facility functions requiring an unobstructed and open space.
- Basic fire and first aid training would be provided to all employees, with at least one employee onsite at any given time with advanced first aid training (EMT or similar).

Each of these features would ease the implementation of applicable emergency response and evacuation plans, and also would ease the burdens on emergency response personnel as they respond to other areas that may be in more danger or not be as well prepared. Based on each of these considerations, and with implementation of standard procedures and regulations regarding development review and oversight by applicable agencies, this impact would be **less than significant**.

Mitigation Measure

None required.

Impact 3.9-2: Implementation of the project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)

Adjacent land uses include scattered private residences, recreation facilities, and undeveloped federal lands under the jurisdiction of the USFS. Most of the project site and surrounding vicinity was burned during the 2013 Rim Fire. Since that time, much of the federal and private lands adjacent to the project site have undergone roadside hazard tree removal, timber salvage, fuels management, and reforestation activities to remove excess dead and downed wood that resulted from the fire, and to restore fire-impacted landscapes where appropriate. Similar activities have taken place on the project site. A salvage of fire-killed trees was conducted on the project site in 2014. In areas where tree cover was lost, the landowner replanted trees or facilitated successful natural reestablishment of young trees. However, in spite of these efforts, drought and decline of fire-damaged trees since the initial salvage has led to additional mortality of overstory trees. As a result, significant quantities of downed wood and standing snags remain on the site. In its current state, fuel conditions on the site present a heightened risk to the local area.

Development of the site would begin with an extensive timber salvage program, concurrent with implementation of a hazardous fuel reduction effort, to make the site accessible and safe for use. Much of this work would occur as part of the project's Timber Harvest Plan (THP), which would be subject to review and approval by CAL FIRE before issuance of a permit. In addition to the fuel reductions that would be undertaken as part of the THP, the site would be subject to ongoing fuel and vegetation management treatments as prescribed in the project's Wildfire Mitigation

Plan. The plan would consider site-specific attributes such as slope, prevailing winds, and fuel loads, and would be subject to review and approval by the Tuolumne County Fire Department (TCFD) in cooperation with CAL FIRE. The plan would include a number of standard prescriptions, including, but not limited to:

- Removal of all, dead, down, dying, diseased, and hazard trees.
- Removal of ladder fuel and dead limbs in trees to a minimum of 20 feet above ground level.
- Implementation of a ground liter reduction and removal program.
- Potential thinning of the trees and other vegetation that have grown since the 2013 Rim fire.
- Establishment of defensible space around property lines, to include vegetation removal, thinning and eliminating ladder fuels within a perimeter of 100 to 200 feet, depending on the slope.
- Provision of defensible space around all areas of proposed development.
- Provision of defensible space on each side of project roadways.
- Fuel reduction and mitigation on and around an area recommended for designation as a temporary Refuge Zone Area.

CAL FIRE has reviewed the proposed fuel breaks and other wildfire mitigation components of the project as they relate to the THP, and has determined that those plan elements will complement other fuel reduction work that is ongoing, completed, and planned in the vicinity, and that the proposed fuel breaks would help protect communities and critical infrastructure along the SR-120 corridor. CAL FIRE has also determined that the plan is consistent with its Tuolumne-Calaveras Unit Pre-Fire Management Plan. See **Appendix J** for relevant correspondence with CAL FIRE on these matters.

Treatments undertaken as part of the above activities would greatly lessen the risk of wildfire on the site, and would also lessen the severity of such an event should it occur. All plans and executed work would meet or exceed the fire safety standards set forth in Title 14 of the Public Resources Code, and would be subject to review and inspection by CAL FIRE and the TCFD per the requirements of 14 CCR 1270, et seq.

Once operational, the project would implement a number of project design features and operational practices to prevent ignition of wildfires at the project site. These measures are listed in Chapter 2, *Project Description*, of this EIR, but are listed again here for the convenience of the reader. These measures would include:

- All tent fabrics would be California State Fire Marshall approved.
- All heating stoves on the site would be equipped with spark arrestors, which would be constructed of woven or welded wire screening of 12 USA standard gauge wire (0.1046 inch) having openings not exceeding 1/2-inch. The net free area of the spark arrestor would not be less than four times the net free area of the outside of the chimney outlet.

- The ashes from the stoves would be removed by camp staff in metal containers and disposed of in a steel container. Firewood and combustible materials would not be stored in unenclosed spaces beneath tents or on decks under eaves, canopies or other projections or overhangs.
- Smoking would be restricted to designated areas, with a minimum of 50-foot radius of all vegetative material cleared to bare mineral soil. Smoking butt disposal container towers would be provided.
- Community campfire rings would be enclosed within a large metal ring to contain burning material, and would be installed into the ground and a minimum of 12 inches above the ground, with a mesh screen installed to encompass and cover the fire as a spark arrestor. Branches and other vegetation above each fire area would be removed, and a cone of clearance to the sky would be established. A large metal cover would be provided to cover the fire ring when not in use and nightly after the fire is extinguished by camp staff. A hose bib would be provided in proximity to each fire ring to extinguish fires prior to covering. Remote web cameras of fire pit areas would be installed to monitor each fire pit, and would be monitored from the campground office and mobile devices. Due to the proximity of the Forest boundary, fires would not be allowed whenever the USFS imposes restrictions on campfires.
- The mobile kitchen facility would be equipped with a hood and range dry chemical extinguishing system.
- Fire tool lockers and fire extinguishers would be provided throughout the site, and in a manner meeting the requirements of Public Resources Code (PRC) Sections 4428 and 4429. Fire extinguishers would be located in each guest tent structure, as well as in all other facilities.

These features would help to prevent wildfires from igniting on the site, and the provision of basic firefighting equipment and training would allow for an initial response to an ignition before professional firefighters could arrive.

Based on each of these considerations, development of the project would not exacerbate wildfire risks, nor would it substantially increase the likelihood that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Rather, the required fuel reductions and operational features of the project would present an improvement over current conditions, since the risks associated with the site's existing conditions would be substantially reduced. Accordingly, the impact would be **less than significant**.

Mitigation Measure

None required.

Impact 3.9-3: Implementation of 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. (*Less than Significant*)

As discussed above, the infrastructure improvements associated with the project, and the fuel breaks and other wildfire mitigation strategies proposed would result in an improved condition with respect to wildfire preparedness and the ability to lessen the overall severity of future wildfires in the area. Therefore, the project would not exacerbate fire risk, but would instead improve conditions related to wildfire risk. With respect to these improvement's effect on the environment, all project improvements associated with wildfire risk reduction and management would occur on the project site as part of the project's development and operation. An evaluation of the environmental effects associated with the project's development, including those portions of the project that relate to abatement of wildfire risk (hazardous fuel reductions, etc.), are evaluated in the various topical sections of this EIR. In all instances, the effects of project implementation were determined to be less than significant. Accordingly, the impact would also be **less than significant**.

Mitigation Measure

None required.

Impact 3.9-4: Implementation of the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less than Significant*)

The project site is located within a relatively flat area adjacent to SR-120. Some gently rolling topography occurs on the project site and in adjoining areas. Most of the project site and the surrounding area were extensively burned during the 2013 Rim Fire. There have been no known post-fire flooding, landslides, or slope instability issues emanating from the project site since that time, nor have there been any known instances of such circumstances affecting the site as a result of the fire. In general, development of the project and its associated hazardous fuels treatments would decrease fire hazards on the project site, resulting in decreased effects related to post-fire hazards should a fire occur. The impact would be **less than significant**.

Mitigation Measure

None required.

Cumulative Impacts

The past, present, and reasonably foreseeable future conditions of the project site and vicinity are considered for the cumulative analysis of wildfire. Projects considered in the cumulative analyses include the following:

- The Terra Vi Lodge Yosemite project, a proposed master-planned lodging development that would be located directly north of the project site across State Highway 120 and includes a public market, a general lodge with multipurpose indoor and outdoor areas, 100 guestrooms, 7 cabins providing 26 guestrooms, and 5 employee housing units.
- The Berkeley Tuolumne Restoration project, approximately 2.7 miles southeast of the project site at 31585 Hardin Flat Road, which would include 90 cabins to replace a similar use lost during the 2013 Rim Fire. This project has been the subject of a Mitigated Negative Declaration prepared by the City of Berkeley as the CEQA Lead Agency. County involvement is ministerial in nature, and is generally comprised of building plan reviews and issuance of building permits.
- Consideration of a Use Permit for the Mountain Sage Nursery in Groveland to conduct occasional special events.
- The Thousand Trails/Yosemite Lakes RV expansion project, a proposed 150-site expansion of the existing Yosemite Lakes RV Resort, divided between RV sites, cabins, and employee model home sites, approximately 0.8 mile southeast of the project site at 31191 Hardin Flat Road. This project has been the subject of pre-application consultations with the County, but a formal application has not been filed.

Impact 3.9-5: Implementation of the project, in conjunction with other development, would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

The project and all development projects in Tuolumne County are subject to compliance with applicable State and County requirements pertaining to development within wildfire-prone areas. These include General Plan policies such as Policy 9.A.1, which requires the active involvement of fire protection agencies within Tuolumne County in land use planning decisions, and Policy 9.E.3, which requires new development to be consistent with State and County regulations and policies regarding fire protection. CAL FIRE development standards for hazardous fuel reduction and management, site design, and other requirements, as outlined in Title 14 of the Public Resources Code, would also be required of each of the reasonably foreseeable projects listed above. Required adherence to each of these requirements would ensure that cumulative impacts related to emergency response and emergency evacuation would be **less than significant**.

Mitigation Measure

None required.

Impact 3.9-6: Implementation of the project, in conjunction with other development, would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)

As stated under Impact 3.9-5, the project and all development projects in Tuolumne County are subject to compliance with applicable State and County requirements pertaining to development within wildfire-prone areas. The fuels management efforts required of the project and committed to by the project applicant would substantially lessen the risk of wildfire, not only at the project site, but in surrounding areas as well. CAL FIRE development standards for hazardous fuel reduction and management, site design, and other requirements, as outlined in Title 14 of the Public Resources Code, also would be required of each of the reasonably foreseeable projects listed above. The plans and design features associated with each of those projects would be required to consider site-specific attributes such as slope, prevailing winds, and fuel loads, and would be subject to review and approval by the Tuolumne County Fire Department (TCFD) in cooperation with CAL FIRE. Required adherence to those requirements would ensure that cumulative impacts related to risks from wildfire and exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire would be **less than significant**.

Mitigation Measure

None required.

Impact 3.9-7: Implementation of the project, in conjunction with other development, 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. (*Less than Significant*).

To comply with applicable regulations and emergency preparedness plans, risk abatement activities implemented at each of the cumulative project sites would be similar to those that would be implemented for the project. These would include, among other things, hazardous fuel reduction treatments, ongoing maintenance of the same, and provision of adequately designed roadways, access points, and other facilities. Cumulatively, these types of infrastructure improvements, and the fuel breaks and other wildfire mitigation strategies that would likely be required would result in an improved condition with respect to wildfire preparedness and the ability to lessen the overall severity of future wildfires in the area. Therefore, the various projects would not exacerbate fire risk, but would instead improve conditions related to wildfire risk. For the Under Canvas Yosemite project, the effects of implementing these types of features has been found to be less than significant, as has been outlined in the various topical sections of this EIR. At other locations, such as at the cumulative project locations outlined above, the effects of implementing these types of features could vary, depending on site-specific factors. For instance, if a development is proposed within a sensitive habitat area, and if implementing wildfire risk abatement features would impact that habitat, then the potential effects of project implementation could be adverse. Each of those projects, however, would be required to comply with existing

laws and regulations that are in place to avoid or lessen those effects. Regardless, potentially adverse impacts associated with other projects would not be made worse by implementation of the Under Canvas Yosemite project. This is because the effects of implementing the project have been found to be less than significant, as has been outlined in the various topical sections of this EIR, and therefore the project would not contribute to any cumulative adverse effects that could be associated with other projects. Based on each of these considerations, the cumulative effects of implementing wildfire abatement activities on a cumulative basis would be **less than significant**.

Mitigation Measure

None required.

Impact 3.9-8: Implementation of the project, in conjunction with other development, would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less than Significant*).

Impacts from post-fire hazards such as flooding and landslides can be substantially lessened if the severity and intensity of wildfires are also lessened. Compliance with existing laws and regulations to that effect, as described previously, would ensure that post-wildfire hazards would be lessened in their severity. Implementation of hazardous fuel reduction treatments is one method by which wildfire severity and the resultant post-fire effects can be lessened. The extent to which the cumulative projects listed above implement wildfire hazard reduction as part of their development and operation will affect the severity of post-fire hazards. For the Under Canvas Yosemite project, the proposed fuel reduction measures and other wildfire mitigation components of the project would lessen the potential for wildfire, and would also lessen the severity of such a fire if it were to occur on the project site. As such, post-fire effects would be less than would otherwise be the case if the project had not been implemented, and the project would thus not contribute to a cumulatively considerable impact. In fact, an improved condition would occur.

Issues such as slope, topography, drainage patterns, and other physical factors can have an effect on post-fire conditions. While the project site is located in an area where those types of features are not major contributors to hazardous post-fire conditions, that may not be the case at all of the reasonably foreseeable project locations. In those instances, implementation of appropriate design and other features, as required by existing laws, regulations, and policies would ensure that potential impacts would be minimized. Based on these considerations, the cumulative effects from post-fire conditions would be **less than significant**.

Mitigation Measure

None required.

3.9.5 References

- California Department of Forestry and Fire Protection (CAL FIRE), 2018. 2018 Priority Landscapes. Available: <https://calfire-forestry.maps.arcgis.com/apps/MapSeries/index.html?appid=f767d3f842fd47f4b35d8557f10387a7>. Accessed November 5, 2019.
- , 2007. Fire Hazard Severity Zones in SRA, Tuolumne County. Adopted on November 7, 2007. Available: https://osfm.fire.ca.gov/media/6843/fhszs_map55.pdf. Accessed October 31, 2019.
- Murphy, Andy. 2020. Telephone conversation with Andy Murphy, CAL FIRE Assistant Chief (with collateral duties with Tuolumne County Fire Department and Groveland Community Services District). April 15, 2020.
- Stanislaus National Forest, 2020. Fire Management Website. Available: <https://www.fs.usda.gov/main/stanislaus/fire>. Accessed May 1, 2020.
- Tuolumne County, 2018. Draft Recirculated Environmental Impact Report for the Tuolumne County General Plan Update Project, State Clearinghouse No. 2015082027. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/11308/Tuolumne-County-GPU-Recirculated-DEIR-full-report>. Accessed October 14, 2019.
- , 2020. Tuolumne County Fire Department Website. Available: <https://www.tuolumnecounty.ca.gov/832/Find-Your-Fire-Station#78>. Accessed May 1, 2020.

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CHAPTER 4

Alternatives to the Proposed Project

The purpose of this chapter is to describe and evaluate a reasonable range of alternatives to the proposed project in order to inform the public and decision makers regarding the comparative merits of alternatives that might avoid or substantially lessen any of the project’s significant environmental effects.

4.1 CEQA Requirements

CEQA requires that an EIR describe and evaluate a range of reasonable alternatives to the proposed project, or to the location of the proposed project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6(a), (d)). The “range of alternatives” is governed by the “rule of reason,” which requires the EIR to set forth only those alternatives necessary to foster informed decision-making and public participation (Section 15126.6(a), (f)).

The range of alternatives shall include alternatives that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines Section 15126.6(a)-(c)). CEQA generally defines “feasible” to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. In addition, the following may be taken into consideration when assessing the feasibility of alternatives: site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and the ability of the proponent to attain site control (Section 15126.6(f)(1)). If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR (Section 15126.6(f)(2)(B)).

The description or evaluation of alternatives does not need to be exhaustive, and an EIR need not consider alternatives for which the effects cannot be reasonably determined and for which implementation is remote or speculative. An EIR need not describe or evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project (CEQA Guidelines Section 15126.6(d)).

The “no project” alternative must be evaluated. This analysis shall discuss the existing conditions, as well as what could be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6(e)(2)).

CEQA also requires that an environmentally superior alternative be selected from among the alternatives. The environmentally superior alternative is the alternative with the fewest or least severe adverse environmental impacts. When the “no project” alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)).

4.2 Factors in Selection and Rejection of Alternatives

The nature and scope of the range of alternatives to be discussed is governed by the “rule of reason.” The CEQA Guidelines recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed (Section 15126.6[c]). This alternatives analysis considers the following factors:

- The extent to which the alternative would accomplish most of the basic objectives of the proposed project;
- The extent to which the alternative would avoid or lessen the identified significant, or less-than-significant with mitigation, environmental effects of the proposed project;
- Requests by interested parties, community members, and decision makers at the EIR scoping session for information regarding the relative environmental impacts of different development programs and different numbers of housing units;
- The feasibility of the alternative, taking into account site suitability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The extent to which an alternative contributes to a “reasonable range” of alternatives necessary to permit a reasoned choice; and
- The requirement of the CEQA Guidelines to consider a “No-Project” alternative, and to identify an “environmentally superior” alternative in addition to the no-project alternative (Section 15126.6[e]).

4.3 Project Objectives

As stated above, the selection of alternatives shall consider the basic objectives of the proposed project. As previously presented in Chapter 2, *Project Description*, the project objectives are to:

- 1) Help meet the demand for lodging facilities near Yosemite National Park and surrounding outdoor recreational resources.
- 2) Provide a camping experience with full-service amenities for visitors to Yosemite National Park and the surrounding area in an outdoor setting.
- 3) Assist the County in meeting its General Plan goals and policies, particularly those related to natural resources, public safety, natural hazards, and economic development.
- 4) Plan for land use compatibility with adjacent landowners and land use activities through effective placement, orientation, and screening of project facilities.
- 5) Reduce hazardous wildfire fuel and timber conditions on the project site.

- 6) Provide on-site infrastructure improvements relating to potable water delivery, wastewater management, and drainage.
- 7) Develop a financially sustainable project that can fund the construction and operation of the facilities and services that are needed to serve the project.

4.3.1 Elimination and/or Reduction of Significant Impacts

CEQA Guidelines § 15126.6(b) states that “Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.”

Potentially significant environmental impacts that would result from the proposed project are evaluated in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR. With implementation of the project design features, standard conditions and requirements, and mitigation measures identified for each resource area significantly impacted, all of the potentially significant impacts resulting from the proposed project would be reduced to a less than significant level.

None of the project’s identified impacts were found to be significant and unavoidable. Therefore, the analysis below will focus on those alternatives that could provide an overall lessening of the project’s effects.

4.3.2 Alternatives Considered but Rejected from Further Evaluation

CEQA Guidelines Section 15126.6(c) requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency and rejected from further evaluation. In identifying alternatives to the proposed project, primary consideration was given to alternatives that would reduce impacts while still meeting most of the basic project objectives as well as the County’s planning goals and objectives, such as those articulated in the County’s General Plan. The alternative scenarios that the County considered but rejected are discussed briefly below, along with the specific reasons why they were not evaluated further in this document.

Alternative Site Location

Several scoping comments suggested that the County consider an alternative location for the project. While the County is not required to evaluate alternative locations for the project—based on a number of legal reasons that are outlined below—the County does want to provide an acknowledgement of the comments that were received on this issue. Specifically, several comments were received concerning use of “The Scar” as an alternative location for the project. The Scar is comprised of several parcels on the south side of SR-120 between Big Oak Flat and Groveland, about 18 miles west of the proposed project site. The Scar is so called because it was cleared and graded some years ago for a project that failed to materialize. An abandoned service station is located in the center of the site’s frontage with SR-120.

This location was considered as a potential alternative location for the proposed project, but it was determined that the site does not possess the characteristics needed to meet the objectives of the project. For instance, the site is a further 18 miles from Yosemite National Park than the proposed project site, which would make it less attractive to potential guests, and locating the project there would also result in a greater quantity of vehicle miles traveled. Further, the site is long and narrow and is positioned immediately adjacent to SR-120, with little opportunity to set project facilities back from the roadway. Since there is little intervening vegetation or topography, guests sleeping in tents would be subjected to excessive roadway noise, light, and other undesirable impacts. The site contains relatively little vegetation and few large trees, so required attributes like shade, screening, and privacy are not present, making the location undesirable for a tent camp. Ultimately, the site is not feasible to serve the applicant's intended use. While it may be suitable for other types of uses, such as a hotel with traditional framed structures that would block out noise and light to guest rooms, it is not a feasible location for the type of facility in which the applicant specializes.

Ultimately, an exhaustive evaluation of alternative locations was not carried forward for more detailed consideration because CEQA does not expressly require a discussion of alternative project locations (Pub. Res. Code §§21001(g), 21002.1(a), 21061). CEQA Guidelines Section 15126.6(a) requires a description of "a range of reasonable alternatives to the project, or to the location of the project," suggesting that a lead agency may evaluate on-site alternatives, off-site alternatives, or both. For this project, the County has elected (consistent with CEQA) to evaluate only on-site alternatives. As the California Supreme Court has emphasized, "the keystone of regional planning is consistency -- between the general plan, its internal elements, subordinate ordinances, and all derivative land-use decisions. Case-by-case reconsideration of regional land-use policies, in the context of a project-specific EIR, is the very antithesis of that goal." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 572–73. Because the land use and zoning provisions that govern use of the proposed site contemplate potential commercial recreation use (Tuolumne County Code §17.31 and §17.15), the County has elected not to reconsider those determinations in the context of this EIR. This approach is consistent with the court's conclusion in *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal. App.4th 477, 492 ("Because the proposed project is consistent with the City's existing plans, policies, and zoning, we conclude a review of alternative sites was not necessary.")

Hotel/Motel Complex

Construction of a Hotel/Motel complex would be potentially feasible, but would not meet the project objectives of providing guests with a camping experience based on lodging that is focused on tent camping with full-service amenities. While potentially feasible, the environmental impacts would be greater due to requirements for paved parking areas, access roads, foundations, and permanent structures. The site would be permanently converted from timberland uses to a more permanent commercial use. While these potential impacts could likely be mitigated, this alternative was not considered for further evaluation as there are no clear environmental benefits to such an alternative. Furthermore, the alternative does not meet the project applicant's goals and objectives for the type of recreational experience desired.

Modern Commercial Campground

Construction of a modern commercial campground, in the style of the current offerings provided by KOA and other commercial campground operators, would be potentially feasible, but would not meet the project objectives of providing guests with a camping experience based on lodging that is focused on tent camping with full-service amenities. A modern commercial campground would provide spaces where guests could place their own tents or RVs. Guests would bring all of their own equipment and would prepare their own meals at their campsites. To conform with current industry standards, onsite amenities would typically include a camp store, a swimming pool, a playground, a dog park, communal bathroom facilities, RV hookups, RV and tent pads, and internal roadways and parking. A potable water supply and sewage treatment system would also be required. Many such facilities are also now offering cabins with in-suite bath facilities. While potentially feasible, the environmental impacts of such an alternative would be greater than the proposed project due to requirements for paved parking areas, access roads, foundations, a swimming pool, and permanent structures. The site would be permanently converted from timberland uses to a more permanent commercial use. While these potential impacts could likely be mitigated, such a project would clearly represent an intensification of use beyond that which is proposed, with a resultant increase in environmental effects, and would therefore offer no clear environmental benefits over the proposed project. Furthermore, the alternative does not meet the project applicant's goals and objectives for the type of recreational experience desired. For these reasons, this alternative was not carried forward for detailed analysis.

Destination RV/Cabin Resort

Construction of a recreational vehicle (RV) and cabin resort would also be potentially feasible, but would also not meet the project objectives of providing guests with a camping experience based on quality lodging that is focused on tent camping with full-service amenities. While potentially feasible, the environmental impacts would also be greater than the proposed project due to requirements for more permanent structures. Infrastructure such a check-in structure/store, cabins, parking pads for RVs, bathrooms and showers, and a swimming pool would be permanent in nature, as would sewer, water, and electricity hookups for RVs. The project's permanent disturbance footprint would be substantially greater than the proposed project. Much of the site would be permanently converted from timberland uses to a more permanent commercial use. While these potential impacts could likely be mitigated, such a project would clearly represent an intensification of use beyond that which is proposed, with a resultant increase in environmental effects, and would therefore offer no clear environmental benefits over the proposed project. Furthermore, the alternative does not meet the project applicant's goals and objectives for the type of recreational experience desired. For these reasons, this alternative was not carried forward for detailed analysis.

4.4 Description of Alternatives Selected for Analysis

The alternatives selected for analysis are designed to inform the public discussion and the final decisions by the County Board of Supervisors on the project. Specifically, the range of alternatives is designed to inform decision makers about:

- Potential modifications to the proposed project that might minimize or avoid environmental impacts.
- The relative change in environmental impact (increase or decrease) that might be expected by potential modifications to the proposed project.
- The impact on the project sponsor's and the County's ability to achieve the project objectives with the potential modifications to the project.

Based on these considerations, the County has identified the following range of reasonable alternatives to be addressed in this EIR.

- **Alternative 1:** Reduced Project Alternative
- **Alternative 2:** Basic Services Campground Alternative
- **Alternative 3:** No Project Alternative

4.4.1 Alternative 1: Reduced Project Alternative

The Reduced Project Alternative assumes an identical use at the site, but with fewer guest tents. Under this alternative, only 75 tent sites would be developed, rather than the 99 sites under consideration for the proposed project. Development under this alternative would still require development of internal roadways within the site, as well as water wells, leach fields, and onsite amenities such as a lobby tent, kitchen facility, and support facilities. Hazardous trees and excess fuel loads would also need to be removed and/or reduced. Overall, however, the site's footprint could be expected to be about one-third less than it would be with the proposed project, though the more intensive development associated with the site's infrastructure would be equivalent to the as the proposed project.

Although the economic feasibility of this alternative would be required to be confirmed (i.e., the ability of the alternative to fund the necessary site development costs, as well as the ongoing fixed operational costs once the project is developed), this alternative is potentially feasible.

The Reduced Project Alternative would generally meet all of the objectives of the proposed project, in that it would help meet the demand for lodging and a unique camping experience in the vicinity of Yosemite National Park, though at a lesser level. It would assist the County in meeting its General Plan goals and policies, and would provide for land use compatibility through effective placement, orientation, and screening of project facilities. It would reduce fuel loads on the site and the associated wildfire risk, and would develop onsite infrastructure to serve the project. However, as noted above, the cost to develop and operate the project would generally be the same as that which would be required to develop and operate the project as proposed, and as such, the project's economy of scale would not be fully realized, and it is therefore unknown if a

reduced project would generate the revenue needed to develop and operate the project in a financially sustainable manner.

As shown in **Table 4-2** at the end of this chapter, the Reduced Project Alternative would be marginally better than the No Project Alternative in meeting the project objectives, but not as good as the proposed project.

4.4.2 Alternative 2: Basic Services Campground

The Basic Services Campground Alternative assumes a more traditional campground, with fewer amenities. A basic campground facility would offer tent and RV sites, potable water, and bathroom facilities. By way of comparison, such a facility might resemble the various campgrounds on offer on National Forest System lands in the region. Under this alternative, development on the site would include an internal roadway network, 99 tent and RV pads, several communal bathrooms positioned across the site, a potable water system serving a number of water stations, and a sewage system to process wastewater. A charcoal grill and a campfire ring would be provided at each site, along with a picnic table and a wildlife-resistant food locker. No food service would be provided, and guests would be responsible for providing all of their own equipment and provisions. There would be three or four employees on the site at any given time to collect fees and conduct maintenance. A YARTS bus stop would not be provided, and guests would use their own personal vehicles to access area attractions, such as Yosemite National Park.

The Basic Services Campground Alternative would meet some of the objectives of the proposed project, in that it would help meet the demand for lodging in the vicinity of Yosemite National Park, though it would not meet the project objective of providing guests with a camping experience based on quality lodging that is focused on tent camping with full-service amenities. The alternative would assist the County in meeting its General Plan goals and policies, and would provide for land use compatibility through effective placement, orientation, and screening of project facilities. Some level of wildfire fuel and hazard tree reduction would need to occur as part of the alternative's development, but at lesser levels than the proposed project. The cost to develop the project would not be substantially less than that required to develop the proposed project, since the higher cost items such as roads, tent/RV sites, and potable water and wastewater systems would still need to be constructed. Since guest fees at such a facility would be substantially less than that of the proposed project, it is unknown if such a campground would generate the revenue needed to develop and operate the project in a financially sustainable manner, but for purposes of the environmental analysis, it is assumed that the alternative would be potentially feasible.

As shown in Table 4-2 at the end of this chapter, the Basic Services Campground Alternative would be marginally better than the No Project Alternative in meeting the project objectives, but not as good as the proposed project.

4.4.3 Alternative 3: No Project Alternative

The No Project Alternative is the circumstance under which the proposed project does not proceed. This Alternative is analyzed consistent with Section 15126.6(e) of the CEQA

Guidelines, which states that the No Project Alternative must include the assumption that conditions at the time the Notice of Preparation of an EIR was circulated for public review would not be changed because the proposed project would not be constructed, and the events or actions that would reasonably be expected to occur in the foreseeable future if the proposed project were not approved.

Under the No Project/No Development Alternative, the project would not be constructed, and the site would remain in the same state as its current undeveloped condition, with the topography, vegetation, and other physical characteristics unchanged. Internal roadways, tent sites, and supporting infrastructure would not be constructed. Hazardous trees would not be removed, nor would hazardous wildfire fuels.

This alternative would not meet any of the objectives of the proposed project. It would not help meet the demand for lodging and a unique camping experience in the vicinity of Yosemite National Park, nor would it assist the County in meeting its General Plan goals and policies. It would also not provide for land use compatibility through thoughtful design. It would also not develop onsite infrastructure on the site. Finally, it would not remove hazardous trees on the site, nor would it create fuel breaks or reduce fuel loads on the site, and the hazardous conditions currently present on the site would likely remain. This alternative would, however, avoid most of the other impacts as identified in Chapter 3 of this EIR.

As shown in Table 4-2 at the end of this chapter, the No Project Alternative would not meet any of the project's objectives.

4.5 Comparative Analysis of the Alternatives

This section presents an environmental assessment of each alternative by environmental topic compared to the proposed project. As permitted by CEQA, the significant environmental effects of the alternatives are discussed in less detail than are the effects of the proposed project (CEQA *Guidelines*, Section 15126.6(d)). However, the analysis is conducted at a sufficient level of detail to provide the public and decision-makers with adequate information to fully evaluate the alternatives and to approve any of the alternatives without further environmental review.

The impact discussion of each alternative follows, and addresses each alternative's ability to avoid or reduce each of the significant impacts identified for the project. The following evaluation of the environmental impacts is summarized in **Table 4-1**, at the end of this chapter.

Alternative 1: Reduced Project Alternative

The Reduced Project Alternative would create an identical use at the site, but at a lesser intensity. Under this alternative, only 75 tent sites would be developed, rather than the 99 sites under consideration for the proposed project. Development under this alternative would still require development of internal roadways within the site, as well as water wells, leach fields, and onsite amenities such as a lobby tent, kitchen facility, and support facilities. Hazardous trees and excess fuel loads would also need to be removed and/or reduced. Overall, however, the site's footprint could be expected to be about one-third less than it would be with the proposed project.

Aesthetics

The Reduced Project Alternative would result in less-than-significant (no mitigation required) aesthetics impacts, the same as identified with the proposed project. Development under this alternative would contain many of the same elements as the proposed project (internal roadways, lobby/dining tent, a kitchen facility, support facilities, and water and sewer infrastructure), but with fewer guest tents. The overall visual impact would be largely the same, particularly when viewed from public vantage points, such as from SR-120 and Hardin Flat Road, since intervening vegetation and topography would shield developed portions of the site from view. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Agricultural and Forestry Resources

The Reduced Project Alternative would result in less-than-significant (no mitigation required) agricultural and forestry resources impacts, the same as identified with the proposed project. Development under this alternative would result in generally the same level of impact to agricultural and forestry resources as the proposed project. Hazardous trees would need to be removed, fuel breaks created, and fuel reductions implemented. Internal roadways would need to be constructed, as well as other elements of onsite infrastructure, all of which would require some level of vegetation removal similar to the proposed project. As with the proposed project, implementation of this alternative would require the applicant to secure a Timberland Conversion Permit for the project, which would covert the site to a recreational use, but would not preclude the site from timber harvesting in the future. As with the proposed project, implementation of the alternative would not result in a loss of capability of the forest on the site to produce wood products and other environmental benefits. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Air Quality

The Reduced Project Alternative would result in less-than-significant (no mitigation required) air quality impacts, the same as identified with the proposed project. Development under this alternative would result in slightly less impacts to air quality than the proposed project. Construction emissions would be marginally less than the proposed project, since fewer tent sites would need to be constructed. Emissions from tent site preparation would be negligible, however, since tent site preparation generally would not require extensive heavy equipment operation or ground disturbance, which are the principal sources of construction emissions. Other construction emissions from road construction and development of other infrastructure would be generally the same as the proposed project, so the overall level of construction emissions would not be substantially less. Operational emissions would be less than the proposed project, since fewer tents would mean fewer guests, and therefore less vehicular travel to and from the site and less wood stove emissions. Based on the fewer number of guests, these types of emissions would be expected to be about one-quarter less than that of the proposed project's.¹ An onsite generator would still be needed at the site to provide power during service interruptions, and the emissions

¹ The alternative would provide for one-quarter fewer guests than the proposed project, so the alternative's emissions would be expected to be about one-quarter less than the proposed project.

from that unit would be similar to the proposed project. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Biological Resources

The Reduced Project Alternative would result in less-than-significant (with mitigation) biological resources impacts, the same as identified with the proposed project. Development under this alternative would result in generally the same level of impact to biological resources as the proposed project. Vegetation removal would need to occur to meet fuel and hazardous tree reduction requirements, and roads and infrastructure would also need to be constructed, with resultant impacts to biological resources, similar to the proposed project. The same two ephemeral water courses would need to be crossed, with resultant impacts and mitigation requirements for jurisdictional waters. Mitigations for nesting birds, special-status bats, and wetlands would still be required, similar to the proposed project. Fewer tent sites would mean less ground disturbance than the proposed project, but preparation of tent sites generally requires minimal ground disturbance, so the level of reduction as a part of the site's overall development would not be substantial. Based on these considerations, this alternative would result in a less-than-significant impact (with mitigation), similar to the proposed project.

Hydrology and Water Quality/Utilities and Service Systems

The Reduced Project Alternative would result in less-than-significant (with mitigation) hydrology and water quality/utilities and service systems impacts, the same as identified with the proposed project. Development under this alternative would result in much the same level of impact to hydrology, water quality, utilities, and service systems as the proposed project, though water demand and wastewater production would be less, based on the fewer number of guests at the site. Groundwater wells would still need to be constructed, as well as the wastewater treatment system and the leach fields. Expected total daily water use would be approximately 5,980 gallons per day, versus the 7,755 gallons per day for the proposed project, a reduction of about 23 percent.² Wastewater production would be reduced by an approximately similar amount.

Water quality impacts would be similar to the proposed project, with similar impacts from ground disturbance, erosion, and wastewater production, and the project would still need to comply with established regulations to limit those effects. Demands on utilities, particularly electricity, would be only marginally less than the proposed project, since the reduction in tent sites would not reduce electricity demand by a considerable amount, since the tents and footpath leading to them would be lighted by low-wattage lighting and/or solar lighting. As such, the overall reduction in electricity demand would not be substantial. As with the proposed project, the applicant would have to acquire a will-serve letter from PG&E, and meet their requirements for providing service to the site.

Based on these considerations, this alternative would result in a less-than-significant impact (with mitigation), similar to the proposed project.

² Assumes 188 total guests at 20 gpd/guest = 3,760 gpd; 16 employees at 10 gpd/employee = 160 gpd; 22 laundry units at 42.5 gallons per wash = 935 gpd; 3 units of food preparation at 375 gallons per unit = 1,125 gpd; = 5,980 gpd total at full occupancy.

Noise

The Reduced Project Alternative would result in less-than-significant (with mitigation) noise impacts, the same as identified with the proposed project. Development under this alternative would result in much the same level of impacts from noise as the proposed project, though some lessening of operational noise could be expected, based on the fewer number of guests and the associated lessening of automobile trips. Construction noise would be similar to the proposed project, since the same type of activities would occur (hazardous tree removal, fuel modifications, site preparation, road construction, and other activities), though perhaps for a shorter duration since fewer tent sites would be constructed. The same mitigations for construction noise would still be required. Fewer guests would mean fewer vehicle trips on area roadways, but the decrease in operational noise would be negligible. Based on these considerations, this alternative would result in a less-than-significant impact (with mitigation), similar to the proposed project.

Public Services and Recreation

The Reduced Project Alternative would result in less-than-significant (no mitigation required) public services and recreation impacts, the same as identified with the proposed project.

Development under this alternative would result in generally the same level of impact to public services and recreation as the proposed project, though the demand for those services would potentially be less based on the lower number of guests at the site. As with the proposed project, this alternative would implement fuel treatments and other mitigations designed to reduce wildfire risk on the site, thus potentially lessening the need for fire services. With respect to law enforcement demand, fewer guests could potentially reduce the demands for service associated with the site, but the reduction would probably be negligible when considered against the overall demand for services that are provided by area law enforcement agencies. Impacts to recreational resources would be similar, in that the fewer number of guests at the site would not lessen the demand for recreational resources by a substantive amount, since the project is generally intended to accommodate visitors and tourists that are already in the project vicinity, and the project's contribution to overall demand for those resources would be negligible when measured against the overall demand and use in the area and regionally. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Transportation

The Reduced Project Alternative would result in less-than-significant (no mitigation required) transportation impacts, the same as identified with the proposed project.

Development under this alternative would result in generally the same level of impacts to transportation, though the number of trips generated by the project would be less; approximately 195 trips per day under this alternative versus 260 trips per day with the proposed project, for a reduction of about 25 percent.³ The level of reduction, however, would be negligible when considered against the number of trips on the area's roadway network. Under this alternative, the aggregate Vehicle Miles Traveled (VMT) would also be about one-quarter less than that of the proposed project, though the per-capita VMT would be the same for both the Reduced Project Alternative and the proposed project.

³ As with the proposed project (see Section 3.8, *Transportation*), this assumes a site-wide average of 2.6 trips per tent, times 75 tents, which equals 195 total trips per day, at full occupancy.

YARTS bus service would be provided under both scenarios, with a resultant reduction in personal vehicle trips. Impacts to the YARTS system under the Reduced Project Alternative would be less than that of the proposed project, since fewer guests would likely mean that fewer guests would take advantage of the YARTS service.

Fees for the County's Traffic Impact Mitigation Fee Program would have to be paid for both the Reduced Project Alternative and the proposed project, though the amount paid into the fund under the alternative would be about one-quarter less than the proposed project, owing the lower number of guest tents and their associated parking spaces.

Construction-related traffic would be less under the alternative, but not substantially so, since site preparation activities such as removal of hazard trees and preparation of fuel breaks would still occur. Additionally, development of the infrastructure for the site (roads, lobby tent and guest facilities, and the potable water and wastewater systems for the site) would not be substantially less than the proposed project, and the fewer number of tent sites constructed would not decrease the number of construction trips by a significant amount.

Impacts associated with roadway hazards and emergency access would be the same as the proposed project, since both the alternative and the proposed project would construct a similar internal roadway network, with identical points of ingress and egress, and a secondary route of emergency access would be developed under both scenarios. In addition, both the alternative and the proposed project would be required to develop the site's roadway system in accordance with applicable requirements for access by emergency vehicles and in such a way as to provide for an orderly evacuation in the event of an emergency.

Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Wildfire

The Reduced Project Alternative would result in less-than-significant (no mitigation required) wildfire impacts, the same as identified with the proposed project. Impacts related to wildfire under this alternative would be generally the same as the proposed project. The project applicant would still be required to develop the site in accordance with applicable standards in relation to provision of adequate emergency access, required roadway widths and configurations, and sufficient evacuation routes (i.e., a secondary emergency access route). The site would also need to be cleared of all hazard trees under this alternative, along with the development of fuel breaks and implementation of fuel modifications. In addition, the various project elements intended to reduce wildfire hazards (e.g., provision of spark arrestors on camp stoves, provision of firefighting equipment and water supply, etc.) would occur under both scenarios.

The environmental effects of implementing the project's fuel breaks and other wildfire mitigation strategies would be similar to the proposed project, and under both the proposed project and the Reduced Project Alternative the effects of those efforts would be less than significant. Finally, the alternative would not expose offsite areas to post-fire effects related to landslides, flooding, and other risks to a degree that is greater or lesser than the proposed project. In other words, the impacts would be largely the same.

Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Alternative 2: Basic Services Campground Alternative

The Basic Services Campground Alternative assumes a more traditional campground, with fewer amenities. A basic campground facility would offer 99 tent and RV sites, potable water, and bathroom facilities. Under this alternative, development on the site would include an internal roadway network, 99 tent and RV pads, several communal bathrooms positioned across the site, a potable water system serving a number of water stations, and a sewage system to process wastewater. A charcoal grill and a campfire ring would be provided at each campsite, along with a picnic table and a wildlife-resistant food locker. No on-site food service would be provided, and guests would be responsible for providing all of their own equipment and provisions. There would be three or four employees on the site at any given time to collect fees and conduct maintenance. A YARTS bus stop would not be provided, and guests would use their own personal vehicles to access area attractions, such as Yosemite National Park.

Aesthetics

The Basic Services Campground Alternative would result in less-than-significant (no mitigation required) aesthetics impacts, the same as identified with the proposed project.

Development under this alternative would contain similar elements as the proposed project (internal roadways, and water and sewer infrastructure, bathroom structures), but the use would be slightly different, since guests would bring their own camping equipment such as tents or RVs, and the overall appearance would be less uniform than the proposed project. However, the overall visual impact would be largely the same, particularly when viewed from public vantage points, such as from SR-120 and Hardin Flat Road, since intervening vegetation and topography would shield developed portions of the site from view. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Agricultural and Forestry Resources

The Basic Services Campground Alternative would result in less-than-significant (no mitigation required) agricultural and forestry resources impacts, the same as identified with the proposed project. Development under this alternative would result in generally the same level of impact to agricultural and forestry resources as the proposed project. Hazardous trees would need to be removed, fuel breaks created, and fuel reductions implemented. Internal roadways would need to be constructed, as well as other elements of onsite infrastructure, all of which would require some level of vegetation removal similar to the proposed project. As with the proposed project, implementation of this alternative would require the applicant to secure a Timberland Conversion Permit for the project, which would convert the site to a recreational use, but would not preclude the site from timber harvesting in the future. As with the proposed project, implementation of the alternative would not result in a loss of capability of the forest on the site to produce wood products and other environmental benefits. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Air Quality

The Basic Services Campground Alternative would result in less-than-significant (no mitigation required) air quality impacts, the same as identified with the proposed project.

Development under this alternative would result in similar impacts to air quality as the proposed project. Construction emissions would not differ substantially, since many of the same project elements (roads, tent sites, water and wastewater infrastructure) would still need to be constructed. Operational emissions would be about the same as the proposed project, though it is possible that wood smoke emissions could be greater, since it is likely that many campers would avail themselves of the opportunity to have their own campfire at their site. An onsite generator would probably not be needed under such a scenario. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Biological Resources

The Basic Services Campground Alternative would result in less-than-significant (with mitigation) biological resources impacts, the same as identified with the proposed project.

Development under this alternative would result in generally the same level of impact to biological resources as the proposed project. Vegetation removal would need to occur to meet fuel and hazardous tree reduction requirements, and roads and infrastructure would also need to be constructed, with resultant impacts to biological resources, similar to the proposed project. The same two ephemeral water courses would need to be crossed, with resultant impacts and mitigation requirements for jurisdictional waters. Mitigations for nesting birds, special-status bats, and wetlands would still be required, similar to the proposed project. The amount of ground disturbance and vegetation removal would be very similar to the proposed project. Based on these considerations, this alternative would result in a less-than-significant impact (with mitigation), similar to the proposed project.

Hydrology and Water Quality/Utilities and Service Systems

The Basic Services Campground Alternative would result in less-than-significant (with mitigation) hydrology and water quality/utilities and service systems impacts, the same as identified with the proposed project. Development under this alternative would result in much the same level of impact to hydrology, water quality, utilities, and service systems as the proposed project, though water demand and wastewater production would be less, based on the fewer amenities provided and the lack of onsite food service offerings. Groundwater wells would still need to be constructed, as well as the wastewater treatment system and the leach fields, though the amount of potable water consumed and the amount of wastewater generated would be less than the proposed project.

Water quality impacts would be similar to the proposed project, with similar impacts from ground disturbance, erosion, and wastewater production, and the project would still need to comply with established regulations to limit those effects. Demands on utilities, particularly electricity, would be less than the proposed project, though some level of onsite lighting would still be required for safety and security purposes. As such, the overall reduction in electricity demand would not be substantial. As with the proposed project, the applicant would have to acquire a will-serve letter from PG&E, and meet their requirements for providing service to the site.

Based on these considerations, this alternative would result in a less-than-significant impact (with mitigation), similar to the proposed project.

Noise

The Basic Services Campground Alternative would result in less-than-significant (with mitigation) noise impacts, the same as identified with the proposed project. Development under this alternative would result in much the same level of impacts from noise as the proposed project. Construction noise would be similar to the proposed project, since the same type of activities would occur, such as hazardous tree removal, fuel modifications, site preparation, road construction, and other activities. The same mitigations for construction noise would still be required. Vehicle trips on area roadways would probably not differ substantially from the proposed project. Occasional amplified noise from special events that would likely occur with the proposed project would not occur with this alternative. Based on these considerations, this alternative would result in a less-than-significant impact (with mitigation), similar to the proposed project.

Public Services and Recreation

The Basic Services Campground Alternative would result in less-than-significant (no mitigation required) public services and recreation impacts, the same as identified with the proposed project. Development under this alternative would result in generally the same level of impact to public services and recreation as the proposed project, though it is possible that demand for emergency services could be greater since the camp environment would be less structured than the proposed project, with a resultant increase in potential wildfire ignitions and personal injuries. As with the proposed project, this alternative would implement fuel treatments and other mitigations designed to reduce wildfire risk on the site, thus potentially lessening the need for fire services. Impacts to recreational resources would be similar to that of the proposed project, since both the proposed project and this alternative would generally accommodate visitors and tourists that are already in the project vicinity. As with the proposed project, the alternative's demand for those resources would be negligible when measured against the overall demand and use in the area and regionally. Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Transportation

The Basic Services Campground Alternative would result in less-than-significant (no mitigation required) transportation impacts, the same as identified with the proposed project. Development under this alternative would result in generally the same level of impacts to transportation, with the number of trips generated not substantially different from the proposed project.⁴ Under this alternative, it thus follows that the aggregate VMT would probably be about the same as the proposed project. However, YARTS bus service would not be provided under this alternative, so the potential trip reductions associated with available YARTS service would not be realized, and thus it could be expected that the number of personal vehicle trips would be greater,

⁴ The ITE Trip Generation Manual (10th Edition) does not provide a daily rate for campground land uses, but does provide peak hour estimates. The AM and PM peak hour trip generation, assuming 100 percent occupancy, would be: 1) AM Peak Hour, 21 trips; 2) PM Peak Hour, 27 trips. Using a factor of 10 to provide a daily range would result in 210 to 270 daily trips, which is about the same as that projected for the proposed project (approximately 258 daily trips).

as would per-capita VMT. Conversely, there would be no impacts to the YARTS system and ridership under this alternative.

Fees for the County's Traffic Impact Mitigation Fee Program would have to be paid for both this alternative and the proposed project, with the fee based on the number of parking spaces. Assuming that the number of spaces under both the alternative and the proposed project would be roughly equivalent, the amount collected under the fee program would also be equivalent.

Construction-related traffic would be less under the alternative, but not substantially so, since site preparation activities such as removal of hazard trees and preparation of fuel breaks would still occur. Additionally, development of the infrastructure for the site (roads, tent and RV pads, and the potable water and wastewater systems for the site) would not be substantially less than the proposed project. Accordingly, the number of construction trips would not vary substantially from the proposed project.

Impacts associated with roadway hazards and emergency access would be the same as the proposed project, since both the alternative and the proposed project would construct a similar internal roadway network, with identical points of ingress and egress, and a secondary route of emergency access would be developed under both scenarios. In addition, both the alternative and the proposed project would be required to develop the site's roadway system in accordance with applicable requirements for access by emergency vehicles and in such a way as to provide for an orderly evacuation in the event of an emergency.

Based on these considerations, this alternative would result in a less-than-significant impact to transportation, similar to the proposed project.

Wildfire

The Basic Services Campground Alternative would result in less-than-significant (no mitigation required) wildfire impacts, the same as identified with the proposed project. Impacts related to wildfire under this alternative would be generally the same as the proposed project. The project applicant would still be required to develop the site in accordance with applicable standards in relation to provision of adequate emergency access, required roadway widths and configurations, and sufficient evacuation routes (i.e., a secondary emergency access route). The site would also need to be cleared of all hazard trees under this alternative, along with the development of fuel breaks and implementation of fuel modifications.

The potential for wildfire ignitions would be potentially greater under this scenario, since each site would be equipped with its own campfire ring, and the associated campfires would be tended independently by each guest. This would be in contrast to the proposed project, where the three community campfire rings would be managed by trained staff members. The extent to which this situation would result in greater potential for wildfire ignitions cannot be stated with certainty, but it seems reasonable to assume that the risk for ignitions could be greater.

The environmental effects of implementing the project's fuel breaks and other wildfire mitigation strategies would be similar to the proposed project, and under both the proposed project and the

Basic Services Campground Alternative the effects of those efforts would be less than significant. Finally, the alternative would not expose offsite areas to post-fire effects related to landslides, flooding, and other risks to a degree that is greater or lesser than the proposed project. In other words, the impacts would be largely the same.

Based on these considerations, this alternative would result in a less-than-significant impact, similar to the proposed project.

Alternative 3: No Project Alternative

Under the No Project Alternative, the project would not proceed. Existing conditions on the project site would not change. Under this scenario, the project site would remain undeveloped, and the site would remain available for future development within the context of allowed uses under existing land use and zoning designations.

Aesthetics

The No Project Alternative would result in no impacts to aesthetics, compared to the less-than-significant impact (no mitigation required) identified with the proposed project. The No Project Alternative would result in no change to the existing views as seen from each viewpoint location discussed and evaluated in Section 3.1, *Aesthetics*, of this EIR. No visual impacts or other changes related to aesthetic resources would result from this alternative, as no changes would occur. No impacts associated with aesthetics would occur, which would be a lesser level of impact than the proposed project.

Agricultural and Forestry Resources

The No Project Alternative would result in no impacts to agricultural and forestry resources, compared to the less-than-significant impact (no mitigation required) identified with the proposed project. The No Project Alternative would result in no change to forestry resources on the site, though it would be reasonable to assume that occasional timber operations would continue on the site, similar to the proposed project. As with the proposed project, implementation of this alternative would not result in a loss of capability of the forest on the site to produce wood products and other environmental benefits. In total, no impacts to agricultural and forestry resources would occur, which would be a lesser level of impact than the proposed project.

Air Quality

The No Project Alternative would result in no impacts to air quality, compared to the less-than-significant impact (no mitigation required) identified with the proposed project. No development would occur with the No Project Alternative. Therefore, none of the effects related to air quality resulting from construction, vehicle trips, wood-burning stoves, standby generator use, and other site operations would occur with this alternative, as compared to the project. The No Project Alternative would have no impacts related to air quality, which would be a lesser level of impact than the proposed project.

Biological Resources

The No Project Alternative would result in no impacts to biological resources, compared to the less-than-significant (with mitigation) impacts identified with the proposed project. No development would occur with the No Project Alternative. Therefore, none of the project's impacts related to biological resources would occur with the alternative, which would be a lesser level of impact than the proposed project.

Hydrology and Water Quality/Utilities and Service Systems

The No Project Alternative would result in no impact to hydrology and water quality/utilities and service systems, compared to the less-than-significant (with mitigation) impacts identified with the proposed project. No development would occur with the No Project Alternative. Therefore, none of the project's impacts related to hydrology and water quality/utilities and service systems would occur with this alternative, which would be a lesser level of impact than the proposed project.

Noise

The No Project Alternative would result in no noise impacts, compared to the less-than-significant (with mitigation) impacts identified with the proposed project. No development would occur with the No Project Alternative. Therefore, none of the project's noise impacts would occur with this alternative, which would be a lesser level of impact than the proposed project.

Public Services and Recreation

The No Project Alternative would result in no public services and recreation impacts, compared to the less-than-significant (no mitigation required) impacts identified with the proposed project. No development would occur with the No Project Alternative, and there would be no increased demand for public services and recreation. Therefore, none of the project's public services and recreation impacts would occur with this alternative, which would be a lesser level of impact than the proposed project.

Transportation

The No Project Alternative would result in no transportation impacts, compared to the less-than-significant (no mitigation required) impacts identified with the proposed project. No development would occur with the No Project Alternative, and there would therefore be no increased vehicular trips or transportation impacts. As such, none of the transportation impacts would occur with this alternative, which would be a lesser level of impact than the proposed project.

Wildfire

The No Project Alternative would result in a potentially significant and unavoidable wildfire impact, as compared to the less-than-significant (no mitigation required) impacts identified with the proposed project. No development would occur with the No Project Alternative, and there would therefore be no hazardous tree removal or fuel mitigation operations conducted on the site. In its current condition, the site presents a hazard with respect to fuel loads, both in the understory and the overstory. This condition represents a risk of wildfire not only on the site, but potentially to surrounding areas. Without fuel reductions, the rate of spread and flame length

associated with a fire on the site would likely to exceed the upper limits of control by direct attack methods (Snyder, 2020). Without a funding source for the hazardous fuel reductions on the site, such as that provided by the proposed project, this condition would likely continue under the No Project Alternative, and would therefore present a potentially significant impact. This impact would be significant and unavoidable, which would represent a greater level of impact than the proposed project.

Overall Comparison of the Proposed Project with Alternatives

The analysis of the alternatives is summarized and compared in two tables: Table 4-1 provides a summary of impact levels within all environmental topic areas. Overall, this table shows that the various alternatives would reduce some, but not all of the project's impacts.

Table 4-2 summarizes the ability of each alternative to meet the project sponsor's objectives for the proposed project. The tables provide a ready means for the reader to review and compare the alternatives with each other, and with the project as proposed.

4.6 Environmentally Superior Alternatives

Based on the evaluation described in this chapter, the No Project Alternative would be the most environmentally superior alternative with the fewest environmental impacts, though it would create a new potentially significant and unavoidable impact with respect to wildfire. The No Project Alternative would not meet any of the basic objectives of the project.

CEQA requires that that a second alternative be identified when the "No Project" alternative is the environmentally superior alternative (CEQA *Guidelines*, Section 15126.6(e)). Therefore, the **Reduced Project Alternative** would be the Environmentally Superior Alternative for the purpose of this analysis, even though it would still result in many of the same less than significant impacts associated with the proposed project, as shown below in Table 4-1. When compared to the proposed project, the lessening of effects under the alternative would be incremental in nature, and wouldn't lessen any of the proposed project's identified less-than-significant effects in a particularly substantive manner. However, it is also possible that wildfire risk under the alternative could be heightened when compared to the proposed project; since less area of the site would undergo wildfire fuel reduction under the alternative, leaving a larger area untreated, the ability of fire to be carried through the site could increase. The Reduced Project Alternative would also not meet the project's objectives as fully as the proposed project.

**TABLE 4-1
ALTERNATIVE IMPACT SUMMARY AND COMPARISON**

Impact	Alternative 1: Reduced Project	Alternative 2: Basic Services Campground	Alternative 3: No Project	Proposed Project
Aesthetics	Less than Significant ↑/↓	Less than Significant ↑/↓	No Impact ↓	Less than Significant
Agricultural and Forestry Resources	Less than Significant ↑/↓	Less than Significant ↑/↓	No Impact ↓	Less than Significant
Air Quality	Less than Significant ↓	Less than Significant ↑	No Impact ↓	Less than Significant
Biological Resources	Less than Significant with Mitigation ↑/↓	Less than Significant ↑/↓	No Impact ↓	Less than Significant with Mitigation
Hydrology and Water Quality/ Utilities and Service Systems	Less than Significant with Mitigation ↓	Less than Significant with Mitigation ↓	No Impact ↓	Less than Significant with Mitigation
Noise	Less than Significant with Mitigation ↑/↓	Less than Significant with Mitigation ↓	No Impact ↓	Less than Significant with Mitigation
Public Services and Recreation	Less than Significant ↑/↓	Less than Significant ↑	No Impact ↓	Less than Significant
Transportation	Less than Significant ↓	Less than Significant ↑	No Impact ↓	Less than Significant
Wildfire	Less than Significant ↑	Less than Significant ↑	Significant and Unavoidable ↑	Less than Significant

NOTES: ↑/↓ - The impact is more/less severe than compared to the proposed project.

**TABLE 4-2
ABILITY OF ALTERNATIVES TO SATISFY PROJECT OBJECTIVES**

Project Objectives	Alternative 1: Reduced Project	Alternative 2: Basic Services Campground	Alternative 3: No Project
Help meet the demand for lodging facilities near Yosemite National Park and surrounding outdoor recreational resources.	Meets objective ↓	Meets objective ↓	Does not meet objective
Provide a camping experience with full-service amenities for visitors to Yosemite National Park and the surrounding area in an outdoor setting.	Meets objective ↓	Does not meet objective	Does not meet objective
Assist the County in meeting its General Plan goals and policies, particularly those related to natural resources, public safety, natural hazards, and economic development.	Meets objective ↓	Meets objective ↓	Does not meet objective
Plan for land use compatibility with adjacent landowners and land use activities through effective placement, orientation, and screening of project facilities.	Meets objective ↑/↓	Meets objective ↑/↓	Does not meet objective
Reduce hazardous wildfire fuel and timber conditions on the project site.	Meets objective ↓	Meets objective ↓	Does not meet objective
Provide on-site infrastructure improvements relating to potable water delivery, wastewater management, and drainage.	Meets objective ↑/↓	Meets objective ↑/↓	Does not meet objective
Develop a financially sustainable project that can fund the construction and operation of the facilities and services that are needed to serve the project.	Meets objective ↓	Meets objective ↓	Does not meet objective

NOTES: ↑/↓ - The alternative is more/less aligned with the objective.

4.7 References

Snyder, William. 2020. Timber Harvesting Plan for the Under Canvas Yosemite Project.

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CHAPTER 5

Other Statutory Considerations

Consistent with CEQA Guidelines Section 15126, this section addresses growth-inducing effects, significant irreversible environmental changes, cumulative impacts (when considered with other projects), and significant unavoidable environmental effects of the proposed project.

5.1 Growth Inducing Effects

The CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action (Section 15126.2[e]). A growth-inducing impact is defined by CEQA Guidelines Section 15126.2(e) as:

[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth.... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involved construction of new housing that would result in new residents moving to the area. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. Increases in population could tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also require analysis of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The timing, magnitude, and location of land development and population growth are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Because city and county general plans define the location, type and intensity of growth, they are the primary means of regulating development and growth in California.

The project proposes to develop 99 campsites and associated infrastructure on an undeveloped site. The Tuolumne County General Plan and General Plan EIR anticipates recreational use of project site of the nature proposed with the project. The entirety of the site is designated as Parks and Recreation (R/P) by the Tuolumne County General Plan. The purpose of the R/P land use designation is to provide for recreational uses of a commercial nature to serve the tourist industry as well as to provide leisure activities to the County's residents.

The growth inducing impacts analysis addresses the potential of the project for growth inducement in the project vicinity or broader area. Under CEQA, a project is generally considered to be growth-inducing if it results in any one of the following:

1. Extension of urban services or infrastructure into a previously unserved area;
2. Extension of a transportation corridor into an area that may be subsequently developed; or
3. Removal of obstacles to population growth (such as provision of major new public services to an area where those services are not currently available).

Between 20 and 30 staff members would be employed at the site, with 10 to 15 personnel working on the site at any given time. Employees would largely be drawn from the local community, though some could be recruited from elsewhere. If they desire, seasonal employees from elsewhere without housing in the local community would be housed in rental units facilitated and paid for by the project proponent. Of the 28,919 housing units within the unincorporated area of Tuolumne County, 9,019, or 31.2 percent were vacant in 2016 according to the 2016 American Community Survey prepared by the U.S. Census Bureau. However, approximately 7,281 (81 percent) of these vacancies were vacation homes located at higher elevations within the County where winter weather is severe. When recreational homes are subtracted out of the vacancy rate, the overall vacancy rate drops to 3.3 percent, the rental vacancy rate is 5.2 percent, and the homeowner vacancy rate is 2.5 percent (Tuolumne County, 2019). By comparison, the national rental vacancy rate was 6.6 percent in the first quarter of 2020 (U.S. Census, 2020a) and 3.4 percent in California (U.S. Census, 2020b). Based on this information, Tuolumne County's rental vacancy rate is about midway between the California statewide vacancy rate and the national vacancy rate, which is indicative that sufficient rental housing would be available if needed. Therefore, there is anticipated to be available housing for any employees recruited from outside of Tuolumne County, and the project would not require the construction of new homes as a result of its business operations.

Minor road and utilities infrastructure would be developed to exclusively serve the project site and would not facilitate other new development beyond the project's boundaries. The proposed project would not extend urban services or infrastructure into a previously unserved area, or extend a transportation corridor into an area that may be subsequently developed, or otherwise remove obstacles to growth or induce growth.

5.2 Significant Irreversible Environmental Changes

Pursuant to Section 15126.2(d) of the State CEQA Guidelines, an EIR must consider any significant irreversible environmental changes that would be caused by the proposed Project should it be implemented. Section 15126.2(d) states:

“Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

Resources that would be permanently consumed by implementation of the proposed project include water, electricity, and fossil fuels. However, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for vendor trucks bringing materials to the project site, construction equipment used on the project site, and construction workers traveling to and from the project site. Project construction would be performed by professional contractors and would not be anticipated to result in inefficient or unnecessary consumption of resources.

Operation of the project would not be anticipated to substantially increase the demand for natural resources. Electric power for the camp would be provided by a local utility company, but most electricity demand on the site would be met using low voltage solar systems. Lighting for the lobby, common areas, and tents would be low voltage solar lighting. All light fixtures and the use thereof would be International Dark Sky Association compliant, while still providing safety and guidance for guests. Heating within the guest tents would be provided on an as-needed basis through the use of wood heating stoves.

The project would be consistent with and support the goals of the Tuolumne County General Plan, including encouraging land uses which maximize the efficient use of energy and facilitate the use of renewable energy resources in order to reduce dependence on imported and non-renewable energy supplies. Neither construction nor operation of the project would result in wasteful, inefficient, or unnecessary consumption of resources.

It is possible that, over time, new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the reliance upon nonrenewable natural resources. Nonetheless, the proposed project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (diesel and gasoline) for automobiles and construction equipment.

5.3 Cumulative Impacts

CEQA defines cumulative impacts as two or more individual impacts which, when considered together, are substantial or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the “incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects” that can result from “individually minor but collectively significant projects taking place over a period of time.” (CEQA Guidelines Section 15355) The analysis of cumulative impacts is a two-phase process that first involves the determination of whether the project, together with existing and reasonably foreseeable projects, would result in a significant impact. If there would be a significant cumulative impact of all such projects, the EIR must determine whether the project’s incremental “contribution” is cumulatively considerable, in which case, the cumulative impact would be significant. (CEQA Guidelines Section 15130)

The analysis of each environmental topic included in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR considers possible cumulative impacts and identifies circumstances in which the project would contribute to significant cumulative impacts.

5.4 Significant and Unavoidable Environmental Impacts

In accordance with CEQA Section 21083, and with CEQA *Guidelines* Sections 15064 and 15065, an EIR must also identify impacts that cannot be eliminated or reduced to an insignificant level by mitigation measures included as part of the implementation of the proposed project, or by other mitigation measures that could be implemented. As described in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, the proposed project would not result in any significant and unavoidable impacts.

5.5 References

California Environmental Quality Act (CEQA) Statutes and Guidelines; Public Resources Code 21000-21177) and California Code of Federal Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387. 2020.

Tuolumne County, 2019. Tuolumne County Housing Element Update. Adopted by the Board of Supervisors September 3, 2019. Resolution 68-19. Available: <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/13316/County-of-Tuolumne-Housing-Element-2019-Update-Adopted-9-3-2019>. Accessed May 6, 2020.

U.S. Census Bureau, 2020a. Table 1: Rental and Homeowner Vacancy Rates for the United States, 1965-2020. Available: <https://www.census.gov/housing/hvs/data/q120ind.html>. Accessed May 6, 2020.

———, 2020b. Table 1: Quarterly Vacancy and Homeownership Rates by State and MSA. Available: <https://www.census.gov/housing/hvs/data/rates.html>. Accessed May 6, 2020.

CHAPTER 6

Report Preparation

6.1 Lead Agency

County of Tuolumne

Quincy Yaley, Director, Community Development Department

Natalie Rizzi, Land Use Coordinator, Community Development Department

6.2 Environmental Consultants

Environmental Science Associates (ESA)

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Luke Evans, Project Manager	Summary; Introduction; Project Description; Transportation; Wildfire; Alternatives; Quality Assurance/Quality Control
Lisa Bautista	Word Processing and Report Production
Joshua Boldt	Biological Resources
Michael Burns, CHG, CEG, PG, QSD	Hydrology and Water Quality/Utilities and Service Systems
Eryn Pimentel	GIS
Chris Sanchez, REA	Air Quality, Noise
Ron Teitel	Graphics
Shadde Rosenblum	Transportation
Steve Smith	Introduction to Environmental Analysis; Aesthetics; Agricultural and Forestry Resources; Public Services and Recreation, Other Statutory Considerations
Jennifer Wade	Biological Resources

6.3 Transportation (VMT Analysis)

Wood Rodgers, Inc.

Mario Tambellini, PE, TE

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