

DRAFT

# INITIAL STUDY

## **CAL FIRE Chalk Mountain Communications Tower and Facilities Replacement Project**

*Submitted to:*



**State of California  
Department of General Services**

*Prepared by:*



235 Montgomery Street, Suite 640  
San Francisco CA 94104

**October 2021**

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# Section 1

Introduction

Department of General Services

707 3RD STREET  
WEST SACRAMENTO, CA 95605



# INITIAL STUDY

## California Department of Forestry and Fire Protection (CAL FIRE) Chalk Mountain Communications Tower and Facilities Replacement Project

### 1. Introduction

This Initial Study (IS) has been prepared by the California Department of General Services (DGS) on behalf of the California Department of Forestry and Fire Protection (CAL FIRE) based on the State CEQA Guidelines, Appendix G, and is organized as follows:

- **Section 1.0** provides a summary of project information.
- **Section 2.0** includes a detailed project description.
- **Section 3.0** provides an evaluation of potential environmental impacts using the CEQA Environmental Checklist Form. Applicant Proposed Measures (APMs), incorporated as part of the proposed Project, are presented as well.
- **Section 4:** List of Preparers. Lists the preparers of the IS.
- **Section 5:** References. Lists the sources of information used to prepare the IS.

#### 1.1 Project Title

CAL FIRE Chalk Mountain Communications Tower and Facilities Replacement Project

#### 1.2 Lead Agency Name and Address

California Department of Forestry and Fire Protection (CAL FIRE)  
1416 9th Street  
Sacramento, CA 95814

#### 1.3 Lead Agency Contact Person and Phone Number

Terry Ash, Senior Environmental Planner  
Department of General Services/Real Estate Services Division  
Project Management & Development Branch  
(916) 201-0085  
[Terry.Ash@dgs.ca.gov](mailto:Terry.Ash@dgs.ca.gov)

## **1.4 Project Location**

The proposed CAL FIRE Chalk Mountain site is an existing communication site located on Big Basin Redwood State Park in the Santa Cruz Mountains in northwestern Santa Cruz County. San Mateo County is to the north, with a portion of the county extending south along Highway 1 approximately 0.5 miles west of the site. The site is approximately 20 miles northwest of the City of Santa Cruz, 11 miles northwest of Davenport, and 8 miles south of Pescadero (see Figure 1-1 at the end of this section).

## **1.5 Project Sponsor's Name and Address**

California Department of General Services  
707 3rd Street  
West Sacramento, CA 95605

## **1.6 General Plan Designation**

The site is within Big Basin Redwood State Park (APN # 057-05-101) and is designated O-R by the County of Santa Cruz County General Plan (1994).

## **1.7 Zoning**

The site is zoned PR (Parks, Recreation and Open Space) by the County of Santa Cruz.

## **1.8 Project Description**

CAL FIRE proposes to construct and operate the Chalk Mountain Communications Tower and Facilities Replacement Project (proposed Project or Project), which would install an up to 80-foot tall telecommunication tower with Mimomax technology equipment, very high frequency (VHF) antennas, and supporting facilities at the existing CAL FIRE Chalk Mountain communications facility. The new tower and facilities would replace an existing wood pole and associated facilities and would support new microwave technology. CAL FIRE would remove existing outdated supporting facilities, as well as a 35-foot-tall emergency repeater that was temporarily installed when the existing 60-foot wood pole burned in the CZU August Lightning Complex fire. Please see Section 2.0 for a complete project description.

## **1.9 Surrounding Land Uses and Setting**

The CAL FIRE Chalk Mountain project site is located in the Santa Cruz Mountains on an open, bare ridge that supports existing telecommunication facilities. The site is approximately 0.75 miles west of the actual Chalk Mountain and approximately 3 miles east of the Pacific Ocean. The proposed Project would be on State land within the Big Basin Redwood State Park and within the designated Coastal Zone in Santa Cruz County. The CZU August Lightning Complex fire burned through the Project site and surrounding area in late August 2020.

## **1.10 Other Agency Approvals**

Table 1-1 below, lists the permits and approvals which may be required for Project-related activities. All necessary permits/approvals would be obtained prior to construction to ensure compliance with all applicable regulations and requirements throughout Project implementation.

**Table 1-1. Permits and Approvals Which May Be Required**

| Agency/Department                                                               | Permit/Approval                                                    | Description                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Federal</b>                                                                  |                                                                    |                                                                                                                                                                                                                                                          |
| U.S. Army Corps of Engineers (USACE)                                            | Clean Water Act Section 404 Permit                                 | Protects Waters of the U.S., including tributaries and riparian areas.                                                                                                                                                                                   |
| U.S. Fish and Wildlife Service (USFWS)                                          | Federal Endangered Species Act                                     | Required if a project would result in take of a federally listed species.                                                                                                                                                                                |
| <b>State of California</b>                                                      |                                                                    |                                                                                                                                                                                                                                                          |
| Regional Water Quality Control Board (RWQCB)                                    | NPDES Permit for construction dewatering                           | RWQCB approval is needed for general construction runoff and/or construction dewatering discharges under the National Pollutant Discharge Elimination System (NPDES).                                                                                    |
|                                                                                 | General Construction Permit and Clean Water Act Section 401 Permit | Project proponents are required to submit a Notice of Intent to the RWQCB for coverage under the General Construction Permit if project disturbance would be over 1 acre. Section 401 permits are necessary when Section 404 permits are required.       |
| California Department of Fish and Wildlife (CDFW)                               | California Endangered Species Act Incidental Take Authorization    | Required if a project would result in take of a State-listed species.                                                                                                                                                                                    |
|                                                                                 | Streambed Alteration Agreement                                     | Requires CDFW to review project impacts to “waters of the state” (bed, banks, channel, or associated riparian areas of a river, stream, or lake), including impacts to wildlife and vegetation from sediments, diversions, and other disturbances.       |
| <b>Regional</b>                                                                 |                                                                    |                                                                                                                                                                                                                                                          |
| Santa Cruz County                                                               | Coastal Zone Permit (Level 5 development permit)                   | Required for land development within the Coastal Zone under the California Coastal Act of 1976.                                                                                                                                                          |
| California Air Resources Board (CARB) or Air Quality Management District (AQMD) | Portable Equipment Registration or Air Quality Permit to Operate   | Portable equipment subject to local air quality permitting requirements, such as generators or air compressors, must either be registered under the CARB Portable Equipment Registration Program (PERP) or obtain a local air quality permit to operate. |
| Monterey Bay Unified Air Pollution District (MBUAPCD)                           | Authority to Construct and Permit to Operate                       | Required if the internal combustion engine for the emergency backup generator is rated at 50 brake-horsepower or greater.                                                                                                                                |

## 1.11 Tribal Consultation

There are currently no tribes or tribal representatives with cultural affiliations to the project area that have previously contacted CAL FIRE in writing to request to be notified of projects. Therefore, pursuant to Public Resources Code 21080.3.1. (a), the State has fulfilled its legal obligations under AB 52.<sup>1</sup>

<sup>1</sup> NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission’s Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The NAHC response to Aspen Environmental Group included contact information for five California native groups that identify with the Project area. Letters were sent to each group with information about the project and a request for any information about resources important to the Tribe that may be potentially impacted. No concerns were voiced by the five groups.

## 1.12 Environmental Determination

### Environmental Factors Potentially Affected

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

- |                                                          |                                                           |                                                                        |
|----------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Aesthetics           | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality                                   |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources               | <input type="checkbox"/> Energy                                        |
| <input type="checkbox"/> Geology/Soils                   | <input type="checkbox"/> Greenhouse Gas Emissions         | <input type="checkbox"/> Hazards & Hazardous Materials                 |
| <input type="checkbox"/> Hydrology/Water Quality         | <input checked="" type="checkbox"/> Land Use/Planning     | <input type="checkbox"/> Mineral Resources                             |
| <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population/Housing               | <input type="checkbox"/> Public Services                               |
| <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation                   | <input type="checkbox"/> Tribal Cultural Resources                     |
| <input type="checkbox"/> Utilities/Service Systems       | <input type="checkbox"/> Wildfire                         | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

### Determination

On the basis of this initial evaluation:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the Proposed Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Terry Ash, Project Manager  
Department of General Services

Date

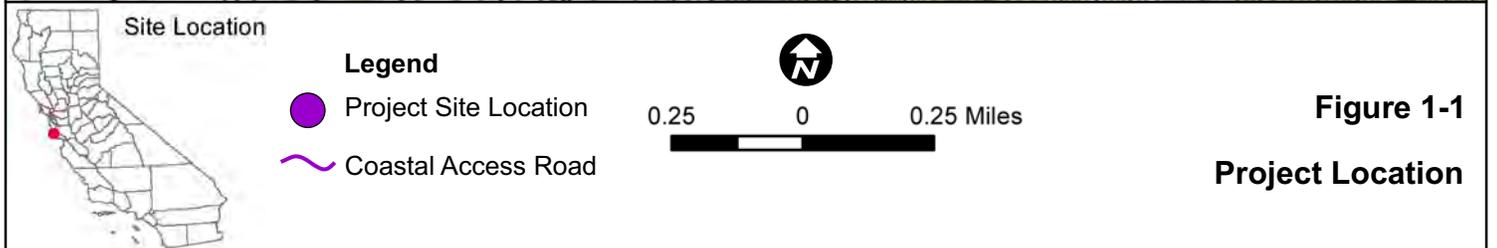
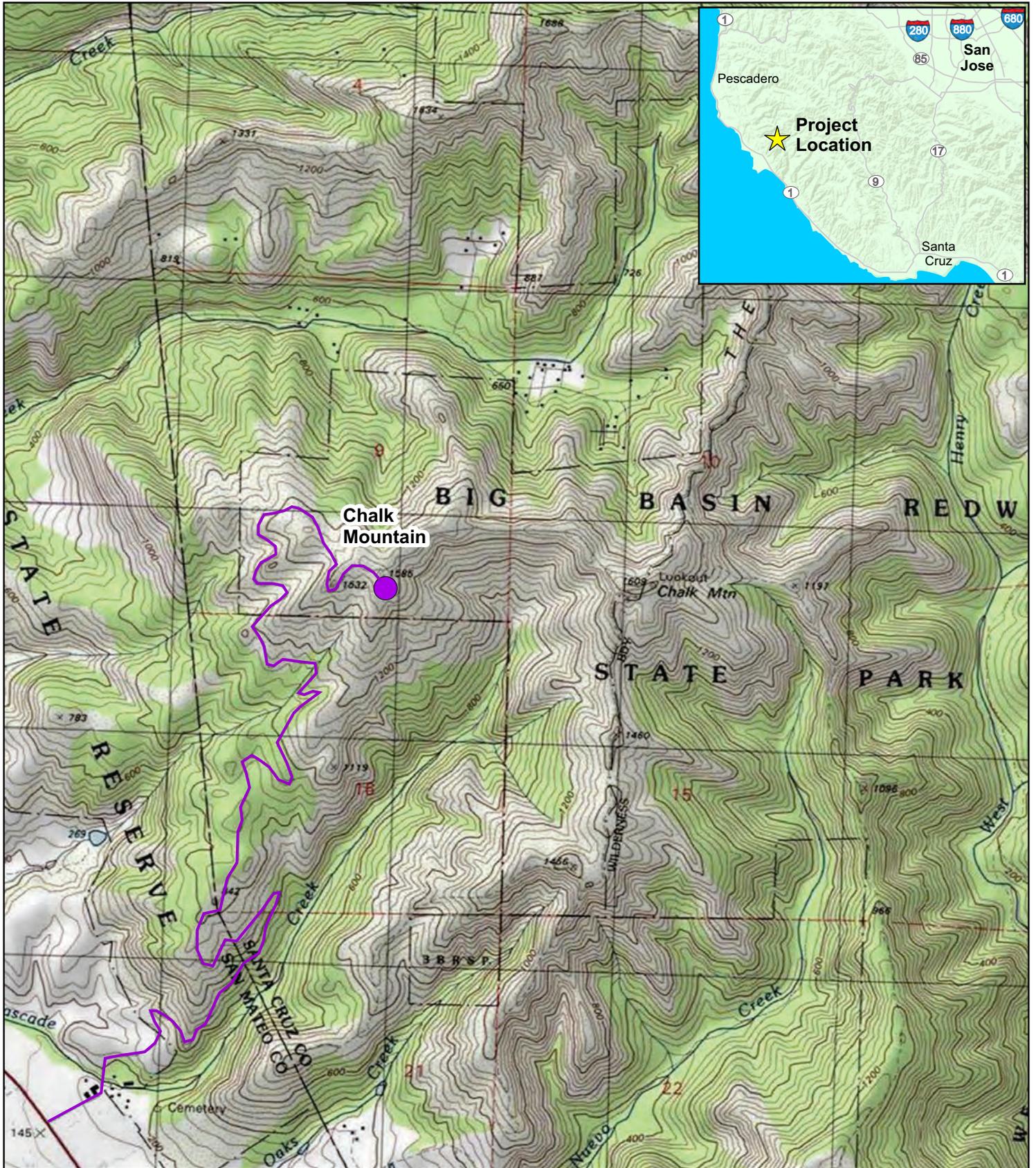


Figure 1-1  
Project Location

# Section 2

## Project Description

## 2. Project Description

The California Department of Forestry and Fire Protection (CAL FIRE) proposes to construct and operate the Chalk Mountain Communications Tower and Facilities Replacement Project (proposed Project or Project), which would install a new replacement telecommunications tower and supporting facilities at the existing CAL FIRE Chalk Mountain communications facility. The new tower and replacement equipment building would support very high frequency (VHF) antennas and Mimomax microwave communications technology equipment. A propane fuel tank and solar panels would also be installed. CAL FIRE would remove an existing disused pole, outdated supporting facilities, and a 35-foot-tall emergency repeater that was temporarily installed when the operational 60-foot wood pole tower burned in the CZU August Lightning Complex fire.

### 2.1 Project Overview

#### 2.1.1 Project History and Background

CAL FIRE operates and manages communications equipment at 192 telecommunications sites throughout California, including at the Chalk Mountain site. CAL FIRE mountaintop communications facilities are remote facilities that typically consist of a telecommunications tower and a securable environmentally controlled communications building (vault) to house sensitive radio transmission equipment. Power for the Chalk Mountain facility would be provided by onsite solar panels and storage batteries, with a propane-fueled backup generator.

CAL FIRE's Chalk Mountain communication site provides an essential emergency communications link for CAL FIRE's fire protection and emergency response command and control throughout the State. The CAL FIRE Chalk Mountain site serves a large portion of the San Mateo/Santa Cruz coast, and it is the only such site that covers that area. The Chalk Mountain facility was the only one that provided radio coverage for the 2007 Martin Fire that threatened the old growth redwoods. The proposed replacement tower and equipment building would also support communication needs of public safety agencies, such as the California Highway Patrol, county sheriffs, and ambulance services. Failure of the site would severely disrupt radio communications along the coast, where fires, traffic accidents, and medical emergencies may arise and need urgent response.

Currently, California Technology Agency's Public Safety Communications Office (PSCO) does not have microwave service into Chalk Mountain due to the present aged and damaged condition of the facilities. California Highway Patrol (CHP), Department of Parks and Recreation (DPR), and other site users have requested microwave connectivity. Upgrading the CAL FIRE Chalk Mountain facility with Mimomax technology would enable PSCO to meet these agencies' needs.

#### 2.1.2 Project Objectives and Need

The objective of the proposed Project is to upgrade CAL FIRE's existing telecommunications infrastructure by replacing the existing 60-foot telecommunication pole, which has since been temporarily replaced with a portable 35-foot repeater, with a new 80-foot telecommunications tower to support the State's Public Safety Microwave Network (PSMN) by enhancing and continuing to provide an essential emergency communications linkage for CAL FIRE's fire protection and emergency response command and control throughout the area. The improved telecommunications would also support CHP, DPR, and local fire/sheriff operations. CAL FIRE will be utilizing new technology equipment called Mimomax to provide the

needed point-to-point links with other remote communication facilities in the network without using large dishes typically required for microwave technology.

The current communications system provides basic VHF repeater service for two of the frequencies in use by CAL FIRE in the area (referred to as CZU Local and CZU Command 2). As technology has evolved, CAL FIRE (as well as other State agencies and local fire/sheriff departments) have centralized and coordinated their communications at regional dispatch centers, which are interconnected via point-to-point microwave radio facilities. Connecting remote mountaintop radio sites via Mimomax technology onto the state-wide microwave system allows incident commanders and other first responders to communicate remotely from anywhere they have connectivity to the Statewide microwave system. The Mimomax technology allows the use of smaller more mission-critical reliable tower equipment instead of the large dishes typically located on microwave towers.

In addition to consolidating radio communications into a centralized Emergency Communication Center (ECC), if a major emergency requires the CAL FIRE to evacuate an area, all radio communications in the Project area can be rerouted to another site outside of the disaster area, keeping first responders connected to dispatch. At sites without microwave, as is the case at CAL FIRE Chalk Mountain currently, if the controlling base station goes off the air, crew communication radios are limited to use only in the immediate area. The centralized command structure would be disconnected and unable to provide coordination and support.

Many cellular phone towers provide backhaul (the sending of voice, video and data between distributed sites and a more centralized point via a radio link). Similarly, the PSMN provides connectivity into a network where the communications can be shared, managed, and distributed; however, the PSMN is more reliable and robust than a commercial cellular site. Typical microwave radios require rock-steady mounting and infrastructure to support the large dish antennas and keep their (typically) 1.5-degree beam width signal pointed at the “other end.” Mimomax’s smaller size requires a less robust infrastructure yet provides a greater network capacity and more reliability during weather events. The current wood pole does not allow for the required line of sight for the point-to-point connectivity or the needed reliability during major weather events, which is why the CAL FIRE Chalk Mountain facility is proposed to be upgraded from a small, isolated 2-channel repeater site to a more robust and efficient microwave-connected public safety communications site.

## 2.2 Project Components

The proposed Project components are shown on Figure 2-1, Preliminary Site Plan, and are described below. The exact location of the replacement tower within the Project site would be determined during final engineering, but is currently planned to be more to the interior of the site than the current wood pole. The new facility would be built to meet essential services seismic standards, withstand 100 mile-per-hour winds, and have a 25-year serviceable life. All project facilities would be set back at least 20 feet from the boundary of the project site.

Under the proposed Project, CAL FIRE would:

- **Replace Inadequate Telecommunications Tower:** Prior to the CZU Lightning Complex fire that burned through the Project area in late August 2020, the existing operational wood pole at the site did not meet minimum requirements for height and structural integrity, and thus, had been proposed for removal. The pole burned in the fire and has been replaced with a 35-foot-tall temporary emergency repeater that would remain in operation until the new tower is constructed and operational (see Section 2.2.1, Replacement Tower).

The minimum tower requirements are based on the required point-to-point connectivity for Mimomax or any other microwave technology. The existing communication pole (60 feet in height) was built for single point-to-point antenna systems. The new replacement tower would be a lattice steel tower up to 80 feet in height and would support the new Mimomax technology equipment, with the increased height providing the needed point-to-point connectivity links, structural integrity, and strength (see Section 2.2.1).

- **Replace Inadequate Vault and Supporting Equipment:** The vault at the CAL FIRE Chalk Mountain communication site is too small to accommodate the number of users and the new digital microwave technology. Additionally, the vault, which is constructed of metal, does not meet the climate control requirements of newer telecommunications equipment. The existing vault is at risk of failure due to the age of the building and the weather conditions it is subjected to on the mountain top and the effects of the nearby Pacific Ocean. The replacement vault would be larger; it would be approximately 13 feet in height, similar to the existing vault, but its final size would be based on how many agencies would be using the tower in addition to CAL FIRE (see Section 2.2.2 below). Environmental control equipment would be located in the vault to filter dust, mitigate moisture, and control the climate inside the vault. Once the new vault is constructed, the existing vault would be removed.
- **Install Solar PV System:** Solar photovoltaic (PV) arrays would be installed on the Project site to provide electrical power to the telecommunications equipment. The size of the solar PV system would be determined based on how many public safety agencies would use the new tower for their telecommunications needs in addition to CAL FIRE. Battery storage of the collected solar power would be housed within the replacement vault.
- **Replace Undersized Generator and Fuel System:** The backup emergency generator fuel system at the Project site is undersized, providing for only a few days of generator operation. The CAL FIRE Chalk Mountain site is inaccessible for refueling for weeks at a time during and after winter rain events. In recent years, during extended winter power outages or utility connections failures at some CAL FIRE communication sites, expensive helicopter resupply of fuel have been necessary to keep generators running and sites operational. The Chalk Mountain backup generator would be in the vault and vented to the outside, with fuel supplied from a propane tank outside the building.

### 2.2.1 Replacement Tower

At the proposed Project location, the new replacement tower would be a new tube braced galvanized steel structure (up to 80 feet tall) to provide increase tower height and needed structural support.

The Chalk Mountain communications tower is proposed to be a modified Rohn heavy duty, 3-legged braced structure that would be designed based on site specific conditions (see Figure 2-2, Chalk Mountain Communications Tower). At the base, the tower would be 4 feet 3 inches on each of its three sides and set in a concrete foundation nearly flush to ground level. The tower would taper, with the top of the tower measuring 2 feet 4 inches on each side. Vertical antennas would be attached at various heights along the body of the tower to support the communication needs of CAL FIRE and other public agencies. The new tower would be erected in the interior of the site, approximately 60 feet north of the existing wood pole and 120 feet north of the top of slope, which defines the edge of the site. If required, guy wires would be installed, as they are on the wood pole. The Mimomax equipment would be installed on the structure at the minimum height required for a clear line of sight to mountain peaks (approximately 15 to 50 miles away) supporting other communications facilities in the network.

## 2.2.2 Vault Replacement

The existing vault would be replaced with a new concrete vault housing radio equipment and backup batteries, a 40 kilowatt (kW) emergency backup generator and fuel system, a multi-purpose alarm, a heating venting and cooling system, VHF and Mimomax communications equipment, and associated accessories. The exact dimensions of the new vault would depend on the number of future agency occupants using the tower. This would be determined during final engineering, but it is expected the new vault would be cover approximately 700 square feet and be up to approximately 13 feet tall. The roof of the vault may also support solar PV panels. A concrete pad for the new propane tank would be installed outside of the replacement vault (see Figure 2-1). Once the new vault is operational, the old vault and equipment would be removed.

## 2.2.3 Solar PV System

As discussed above, the exact size of the solar PV system and energy storage batteries (to be housed in the vault) would be based on the number of future agency occupants using the tower for telecommunication needs, but it is expected to be up to approximately 55 kilowatts (kW). The PV modules would be manufactured at an offsite location and transported to the Project site. The panels would be arranged in rows with a maximum height of 12 feet. The panel count would depend on the technology ultimately selected at the time of procurement. It is estimated that the gross area of the solar field would be 650 square feet (see Figure 2-1).

The PV modules would be supported by steel piles (e.g., cylindrical pipes, H-beams, or similar), which would be driven into the soil using pneumatic techniques, such as a hydraulic rock hammer attachment on the boom of a rubber-tired backhoe excavator. The piles typically would be spaced 10 feet apart and would be less than 10 feet deep.

Panels would be arrayed in strings electrically connected by wiring secured to the panel racking system. Underground cables would convey the electricity from the panels to the vault building.

## 2.3 Project Construction

### 2.3.1 Construction Schedule

Following receipt of applicable permits, completion of final engineering, and material procurement activities, construction of the proposed Project is estimated to start in late 2023 or early 2024. Construction is expected to span approximately 2 years, allowing for delays that may occur due to weather or to construction sequencing needed to maintain communication service continuity. Construction would primarily occur Monday through Saturday (6 days a week) between 7:00 a.m. to 6:00 p.m., consistent with local noise and traffic ordinances.

The estimated construction schedule does not reflect modifications that may be unknown at this time but are needed to: (1) accommodate requirements identified during final engineering and material procurement; (2) accommodate compliance with environmental restrictions during construction; (3) keep the existing telecommunications facilities operational during construction; or (4) are otherwise needed for safety or system reliability.

## 2.3.2 Pre-Construction Activities

### *Access Road Maintenance and Repair*

Direct site access would occur from Highway 1 via Chalks Road, where CAL FIRE has access and maintenance agreements in place. Existing access may require repairs in accordance with the agreements and would be performed as part of standard CAL FIRE operations and maintenance activities performed for the existing telecommunications facility.

### *Staging Areas*

Project construction would require establishing temporary staging areas within the Project site (i.e., on State land), to be used as reporting locations for workers, vehicle and equipment parking, and material storage. Staging areas may also have construction trailers for construction personnel and inspectors. The majority of materials associated with the construction efforts would be delivered by truck to the site and stored within designated staging areas. To limit traffic on the unimproved access road to the site, workers may be required to park vehicles in existing parking areas at Cascade Ranch or elsewhere, as agreed by the owners.

Materials commonly stored at the construction staging areas would include, but not be limited to construction vehicles and equipment; portable sanitation facilities; steel bundles; new communications tower structures; soil spoils, construction trailers; concrete batch plant; signage; consumables (such as fuel and filler compound); waste materials for salvaging, recycling, or disposal; and Best Management Practice (BMP) materials (straw wattles, gravel, silt fences, and potentially water tanks). Fuel and hydraulic fluids may also be located at the construction staging areas. Normal construction equipment maintenance and refueling would be conducted at these sites.

### *Establish Work Areas*

Pre-construction activities at the work site would consist of survey and staking of disturbance limits and the locations of the replacement tower and vault, as well as any staging areas. The site is mostly devoid of vegetation, but there may be some limited vegetation clearing associated with the setup of each work area. A dozer or grader would likely be used to establish the work area and clear vegetation, as needed. The site may require minor grading to enable water to flow in the direction of the natural drainage and would be designed to prevent ponding and erosion that could damage the new tower footings and other Project improvements. The graded area would be compacted to be capable of supporting heavy vehicular traffic. If needed, temporary security fencing may be installed.

All disturbed areas would be on State land at the proposed Project site and primarily localized around the work area. The new tower would be located north of the existing pole to minimize visual impacts. The proposed tower would be delivered in small sections and assembled onsite. Erection of the new tower is expected to require establishment of a crane pad. The crane pad would occupy an area of approximately 50 feet by 50 feet and would be located adjacent to the new tower within the laydown/work area. The actual size of other work areas would depend on the construction activity but would occur only within the State land on the Project site.

## 2.3.3 Construction Activities

Minimal grading would be required for the proposed Project; spoils from foundation excavations would generate approximately 25 cubic yards of fill that would be spread onsite, likely on the west side of the

existing telecommunications facility to expand the existing level area. At the end of construction, an estimated 700 square feet of additional impervious surface would be created by the vault footprint, as compared to existing conditions. The impervious surface created by footings for the fuel tank and new tower would be offset by the removal of the existing vault.

### ***New Tower and Vault Construction***

Equipment no longer needed, such as the wood pole, would be removed. Pending final construction, the vault would remain operational as needed, then decommissioned and removed. The new tower foundation would be constructed with poured-in-place mat foundations. Depending on final geotechnical engineering, the tower may need to be rock anchored up to 20 feet deep or more for stability. Spoils from foundation excavations would be placed within the Project site.

After survey positioning is verified, the foundation footings would be excavated or drilled. Anchor bolts may be drilled into bedrock at depths below 20 feet, if necessary, to properly anchor the foundation. Then rebar would be set and concrete would be poured. Steel-reinforced rebar cages would be assembled at staging areas on the Project site. The replacement tower foundation would require concrete delivered to the site or produced at a temporary on-site batch plant.

Once the foundation is complete, the new tower would be installed. A crane would be used to set the steel tower onto the new foundations. When the new tower is in place, the structure would be bolted to the foundation and bolted together (if erected in pieces). Sections may also be spot welded together for additional stability. Depending on available equipment, the tower may be assembled into a complete structure at the staging area or erected in pieces.

The new vault would be a premanufactured building or concrete masonry unit (CMU) block wall construction, depending on final engineering.

### ***Old Tower and Vault Removal***

Once the antennas have been installed on the new tower, connected to the equipment in the new vault, and tested, the temporary portable repeater and the existing vault building and its contents would be removed.

The removal of the old structure would consist of the above-ground portions of the existing structure and the footings. Footings are typically removed to a minimum of 2 feet below ground surface. Any holes left from removing the existing foundations would be backfilled with spoils from the excavation for the new tower and other grading activities. The existing vault may be removed via crane or other technique. Removed infrastructure would be dismantled in place or moved to a staging area, where it would be dismantled for recycling or disposal and removed from the site via truck. Foundations/footings would typically be crushed by mechanical means such as a pneumatic hammer at the site and trucked out or reused onsite. All material not reused would be removed and delivered to an authorized facility for recycling or disposal.

### ***Solar Array Construction***

The PV system installation may require some earthwork, including grading, fill, compaction, and erosion control followed by erection of the supports, PV modules, and associated electrical equipment. Construction of the PV arrays would include installation of support beams, module racking assemblies, PV modules, inverters, transformers, grounding, and buried electrical cable conduits. System installation would begin with placement of steel pier support structures. The exact design would be finalized pending information

on specific soil conditions. Supporting structures would be pneumatically driven piles. This would be followed by panel installation and electrical work. Concrete would be required for pads for the switchgear, inverters, and transformers. Concrete would be delivered from offsite or produced at an onsite concrete batch plant.

### 2.3.4 Restoration Activities

Upon completion of construction activities and testing of Project components, all disturbed work areas (including the access road) would be restored to prior conditions.

### 2.3.5 Construction Workforce and Equipment

The estimated total number of personnel required for construction activities on any given day during construction would be approximately 20 workers. Table 2-1 presents the typical construction equipment that may be used during construction.

**Table 2-1. Construction Equipment to be Utilized**

| Equipment                                            | Activity |                   |                   |                  |
|------------------------------------------------------|----------|-------------------|-------------------|------------------|
|                                                      | Grading  | Tower Replacement | Vault Replacement | Site Restoration |
| Water Truck                                          | X        | X                 | X                 | X                |
| Various Small Crew Vehicles                          | X        | X                 | X                 | X                |
| Backhoe Loader                                       | X        | X                 |                   | X                |
| Loader                                               | X        | X                 |                   |                  |
| Bulldozer                                            | X        |                   |                   |                  |
| Dump Truck                                           | X        |                   |                   |                  |
| Motor Grader                                         | X        |                   |                   |                  |
| Rock Hammer                                          | X        |                   |                   |                  |
| Soil Vibratory Compactor                             | X        | X                 | X                 |                  |
| Jackhammer                                           |          | X                 | X                 |                  |
| Auger Truck                                          |          | X                 | X                 |                  |
| Crane                                                |          | X                 | X                 |                  |
| Excavator                                            |          | X                 | X                 |                  |
| Concrete Trucks                                      |          | X                 | X                 |                  |
| Compressor                                           |          | X                 |                   |                  |
| All Terrain Forklift                                 |          | X                 |                   |                  |
| Man Lifts                                            |          | X                 |                   |                  |
| Various restoration equipment, including hydroseeder |          |                   |                   | X                |

### 2.3.6 Water Requirements

Water would be used as needed for dust control during construction. Water would be obtained from offsite water purveyors and trucked to the site. During construction, restroom facilities would be provided by portable units serviced by licensed providers. During operation, minimal water would be required.

## 2.4 Operations and Maintenance

Ongoing operations and maintenance (O&M) activities are necessary to ensure reliable service, as well as safety of the general public. The Project would not introduce any new or additional maintenance requirements or require additional personnel beyond what is currently required at the site. O&M activities for the communication facility would be performed by existing CAL FIRE personnel and would remain similar to that occurring under existing conditions, which include access road maintenance, inspections, tower checks, and equipment repair and replacement as needed.

## 2.5 Applicant Proposed Measures

CAL FIRE proposes to implement measures to ensure the Project would occur with minimal environmental impacts in a manner consistent with applicable rules and regulations. CAL FIRE proposes to implement these measures during the design, construction, and operation of the Project in order to avoid or minimize potential environmental impacts.

Applicant Proposed Measures (APMs) listed in Table 2-2 are considered part of the Project and are considered in the evaluation of environmental impacts (see Section 3, Initial Study). Project approval would be based upon CAL FIRE adhering to the Project as described in this document, including this project description and the APMs, as well as any adopted mitigation measures.

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**Table 2-2. List of Applicant Proposed Measures**

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### Biological Resources

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**APM B-1. Personnel Environmental Awareness Training.** An agency-approved biologist shall present an environmental-education program to all personnel assigned to the Project. The program shall describe sensitive resources and associated APMs, applicable permits, and all other agency requirements.

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**APM B-2. Pre-construction Surveys and Construction Monitoring.** A qualified biologist shall be present for all Project activities that may impact special-status species habitat or jurisdictional areas. This is likely to include vegetation removal, equipment staging, equipment mobilization, site grading, and any other ground-disturbing activities.

The qualified biologist shall arrive early each morning for a daily pre-activity survey to check under and around all vehicles or heavy equipment that shall be moved during the day, to check under and around and inside materials at staging areas, to check trenches left overnight, and to otherwise ensure that no special-status animals could be harmed when workers arrive. If a special-status animal is found, visible markers such as pinflags or flagging shall be used to show avoidance areas and workers shall be informed of prohibited activities near the animal until it moves away on its own. Work may need to be halted to ensure animal safety. To reduce potential impacts to California red-legged frog, the qualified biologist shall install avoidance fencing along both sides of the access road within 100 feet of the crossing of Cascade Creek. The qualified biologist shall ensure that the animal is not harassed or harmed.

The qualified biologist shall complete a daily monitoring form describing activities of the day and any relevant violations, incidents, or sightings, including steps taken to resolve violations or problems. These forms shall be compiled into a final report to show compliance with regulations. The qualified biologist shall also ensure the following:

- Trenches or holes that must be left unfilled overnight shall be entirely covered and secured to prevent wildlife from falling in or becoming trapped. If trenches or holes cannot be covered, escape ramps shall be provided allowing animals to escape.
  - Staging and parking areas shall be sited in previously disturbed areas to avoid natural areas, sensitive habitats, and jurisdictional areas.
-

**Table 2-2. List of Applicant Proposed Measures**

- Small-mammal burrows, debris piles, logs, boards, rock piles, and dense vegetation shall be avoided to the maximum extent possible. Burrows that must be destroyed for construction shall be hand excavated or mechanically excavated under the supervision of an agency-approved biologist.
- There shall be no food-related trash, or any other trash, left on site at the end of each work day. This includes food wrappers, drink cans or bottles, bread crusts, orange or banana peels, etc. Human trash, especially food-related trash, attracts predators.
- No one shall capture and/or relocate California red-legged frogs or other listed species within the proposed Project site or along the access road.
- All sightings of special-status species shall be reported to the California Natural Diversity Database. Observations of listed species shall be reported directly to the USFWS and CDFW, as applicable.

**APM B-3. Special-status Bird Avoidance and Minimization.** To avoid or minimize impacts to marbled murrelet, golden eagle, long-eared owl, and other migratory birds, construction shall take place outside the nesting season for migratory birds, as feasible. Such activities include construction, road grading, vegetation trimming or removal, and equipment staging. The nesting season is generally accepted as February 15 through August 15. No restrictions shall be necessary for activities that take place outside the nesting season (i.e., between August 16 and February 14).

If work must take place during the nesting season (February 15 through August 15), a nesting bird survey shall be conducted by a qualified biologist prior to planned activities. The survey shall be conducted by a qualified biologist no more than two weeks prior to project initiation within 500 feet of the project footprint. The survey area shall be based on the full project footprint, including the active construction site and the locations of staging areas, vegetation removal, and other areas of impact.

If an active nest is found, a visible no-disturbance buffer zone shall be established around it. Currently accepted CDFW and USFWS nesting-bird buffer distances are 250 feet for passerines and 500 feet for raptors. The qualified biologist shall be authorized to reduce these buffers to ensure that the nesting birds are not impacted but also to allow construction to proceed, when feasible.

Within established buffer zones, no project-related activities shall take place during the nesting season, with the exception of vehicle passage (no stopping, idling, or other noise generation allowed), or until the qualified biologist determines that the nest is no longer active. For project-related activities taking place outside the nesting season, no precautions for nesting birds would be necessary.

**APM B-4. Implement Best Management Practices to Minimize Impacts to Jurisdictional Areas.** In addition to SWPPP requirements, the following Best Management Practices (BMPs) shall be implemented during all construction and maintenance activity in or near drainages, waters, and wetlands:

- Vehicles and equipment shall not operate in ponded or flowing water.
- No construction activities or vegetation clearing shall be authorized within drainages.
- Water containing mud, silt, or other pollutants from grading or other activities shall be prevented from entering drainages.
- Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from Project-related activities, shall not be allowed to contaminate soil or enter drainages.
- No equipment maintenance or refueling shall occur outside of developed areas or within 150 feet of any streambeds or drainages.
- If erosion control material is used to prevent erosion, it shall be certified weed free and shall not contain monofilament plastic.

### Cultural Resources

**APM CR-1. Train Construction Personnel.** Prior to the initiation of construction, all construction personnel shall be trained, by a qualified archaeologist, regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. The State shall complete training for all construction personnel. Training shall inform all construction personnel of

**Table 2-2. List of Applicant Proposed Measures**

the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Workers' Environmental Training Program, so they are aware of the potential for inadvertently exposing buried archaeological deposits. The State shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources and anticipated procedures to treat unexpected discoveries.

**APM CR-2. Inadvertent Discovery of Historical Resources, Unique Archaeological Resources or Tribal Cultural Resources.** If previously unidentified cultural resources are identified during construction activities, construction work within 50 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the significance of the resource. The archaeologist, in consultation with the State, the State Historic Preservation Officer, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers, qualify as a unique archaeological resource under California Environmental Quality Act Section 21083.2, or are determined to be tribal cultural resource as defined in Section 21074. If previously unidentified cultural resources or tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of the resource. The archaeologist, in consultation with the State, SHPO, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers, qualify as a unique archaeological resource under CEQA Section 21083.2 or determined to be tribal cultural resource as defined in Section 21074.

**APM CR-3. Treatment of Human Remains.** All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 50 feet of the discovery area must cease immediately, nothing is to be disturbed, and the area must be secured. The County Coroner's Office must be called. The Coroner has two working days to examine the remains after notification. The appropriate land manager/owner of the site is to be called and informed of the discovery. If the remains are located on federal lands, federal land managers, federal law enforcement, and the federal archaeologist must be informed as well, due to complementary jurisdiction issues. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, as it could be a crime scene. The Coroner will determine if the remains are archaeological/historic or of modern origin and if there are any criminal or jurisdictional questions.

After the Coroner has determined the remains are archaeological/historic-era, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.

The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours from the time they are given access to the site to make recommendations to the landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours from the time they are given access to the site, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC.

According to the California Health and Safety Code, six (6) or more human burials at one (1) location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

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### **Hazards and Hazardous Materials**

**APM HAZ-1. Prepare and Implement a Hazardous Materials and Waste Management Plan.** Prior to approval of the final construction plans for the proposed Project, an existing CAL FIRE-approved hazardous materials and waste management plan, or if no such plan is in place, a project-specific Hazardous Materials and Waste Management Plan for the construction phase of the proposed Project shall be prepared and submitted to the State for approval. The Plan shall be prepared to ensure compliance with all applicable federal, State, and local regulations. The Hazardous Materials and Waste Management Plan shall reduce or avoid the use of potentially hazardous materials for the purposes of worker safety; protection from soil, groundwater, and surface water contamination; and proper

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**Table 2-2. List of Applicant Proposed Measures**

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disposal of hazardous materials. The plan shall include the following information related to hazardous materials and waste, as applicable:

- A list of the hazardous materials that shall be present on site and in the local construction yard during construction, including information regarding their storage, use, and transportation;
- Any secondary containment and countermeasures that shall be required for onsite and construction yard hazardous materials, as well as the required responses for different quantities of potential spills;
- A list of spill response materials and the locations of such materials at the proposed Project site and in the local construction yard during construction. Additionally, the Plan shall designate that spill response materials be kept onsite for all activities performed near or adjacent to a waterway;
- Procedure for Fueling and Maintenance of Construction Vehicles and Equipment: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. The Plan shall include the following procedures:
  - Construction vehicles shall be fueled and maintained offsite at the construction yard or at local fuel stations. Construction vehicles operated near or adjacent to the stream/river channel shall be inspected and maintained daily to prevent leaks.
  - Construction equipment such as drill rigs and excavators shall be fueled offsite when feasible. When refueling offsite is not feasible for drilling equipment and other construction equipment, onsite refueling of the equipment by refueling vehicles or fuel trucks shall follow specified procedures to prevent leaks or spills. Procedures shall require refueling be located a minimum of 150 feet from a stream channel and the use of spill mats, drop cloths made of plastic, drip pans, or trays to be placed under refueling areas to ensure that fuels do not come into contact with the ground. Spill cleanup materials shall be kept readily available on the refueling vehicles.
  - Drip pans or other collection devices shall be placed under equipment, such as motors, pumps, generators, and welders, during operation and at night to capture drips or spills. Equipment shall be inspected and maintained daily for potential leakage or failures.
- A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials;
- A description of the waste-specific management and disposal procedures that shall be conducted for any hazardous materials that will be used or are discovered during construction of the proposed Project; and
- A description of an existing CAL FIRE–approved worker training program, or if no such program is in place, a project specific Worker Environmental Awareness Program (WEAP) to be conducted prior to construction to train all site personnel of the Hazardous Materials and Waste Management Plan requirements prior to the commencement of work.

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**APM HAZ-2. Prepare and Implement a Hazardous Materials Management Business Plan.** Prior to operations of project propane storage and generator facilities, an existing CAL FIRE–approved hazardous materials management plan, or if no such plan is in place, a project-specific Hazardous Materials Business Plan for the operation phase of the proposed Project shall be prepared and submitted to the State for approval prior. The Plan shall be prepared to ensure compliance with State and federal regulations contained within the Resource Conservation and Recovery Act policies. The Business Plan shall specify hazardous liquid and other hazardous waste handling procedures for personnel responsible for handling or hauling hazardous materials and wastes to/from the Project site.

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**Table 2-2. List of Applicant Proposed Measures**

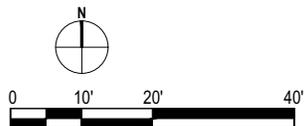
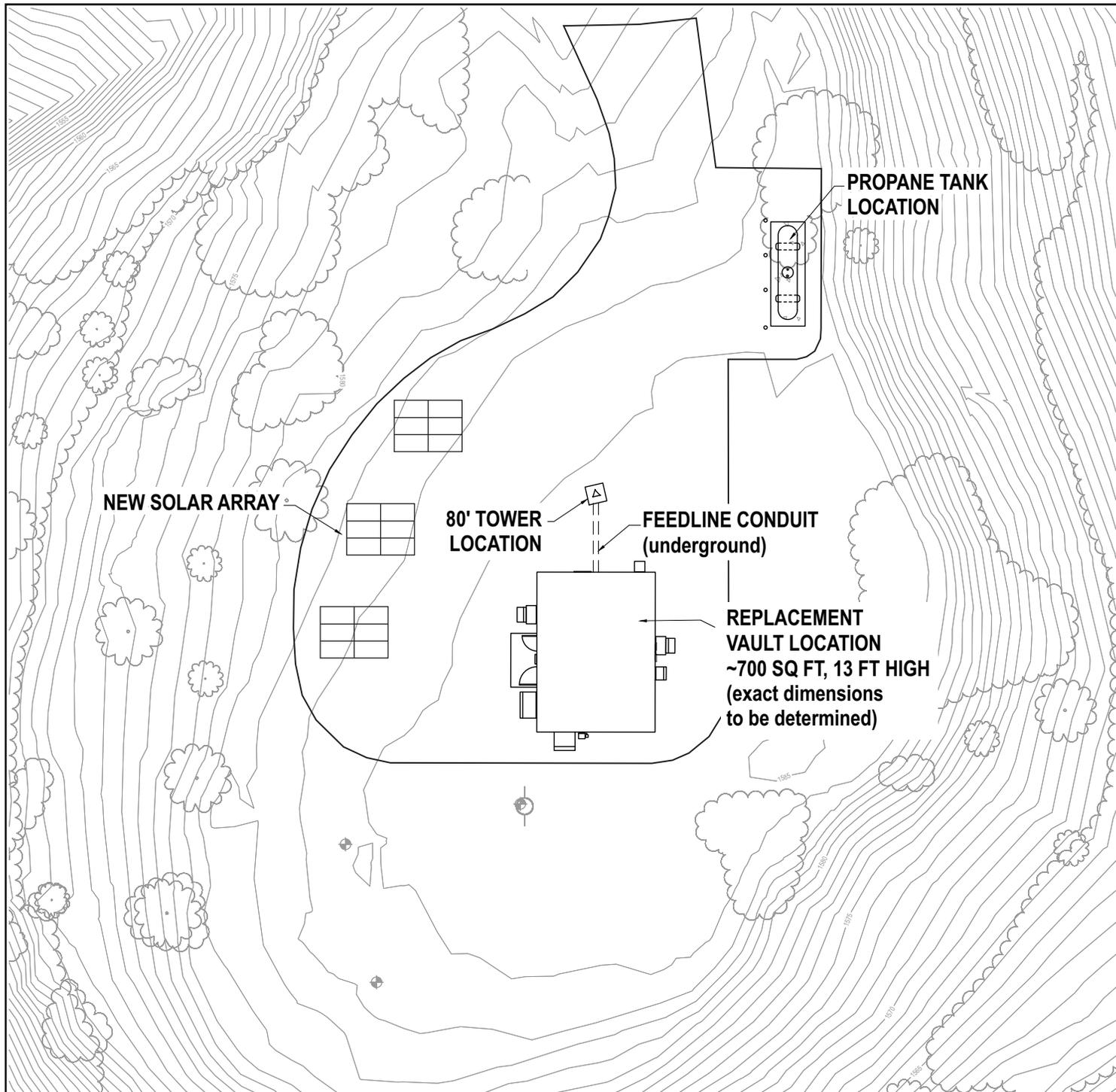
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**Noise**

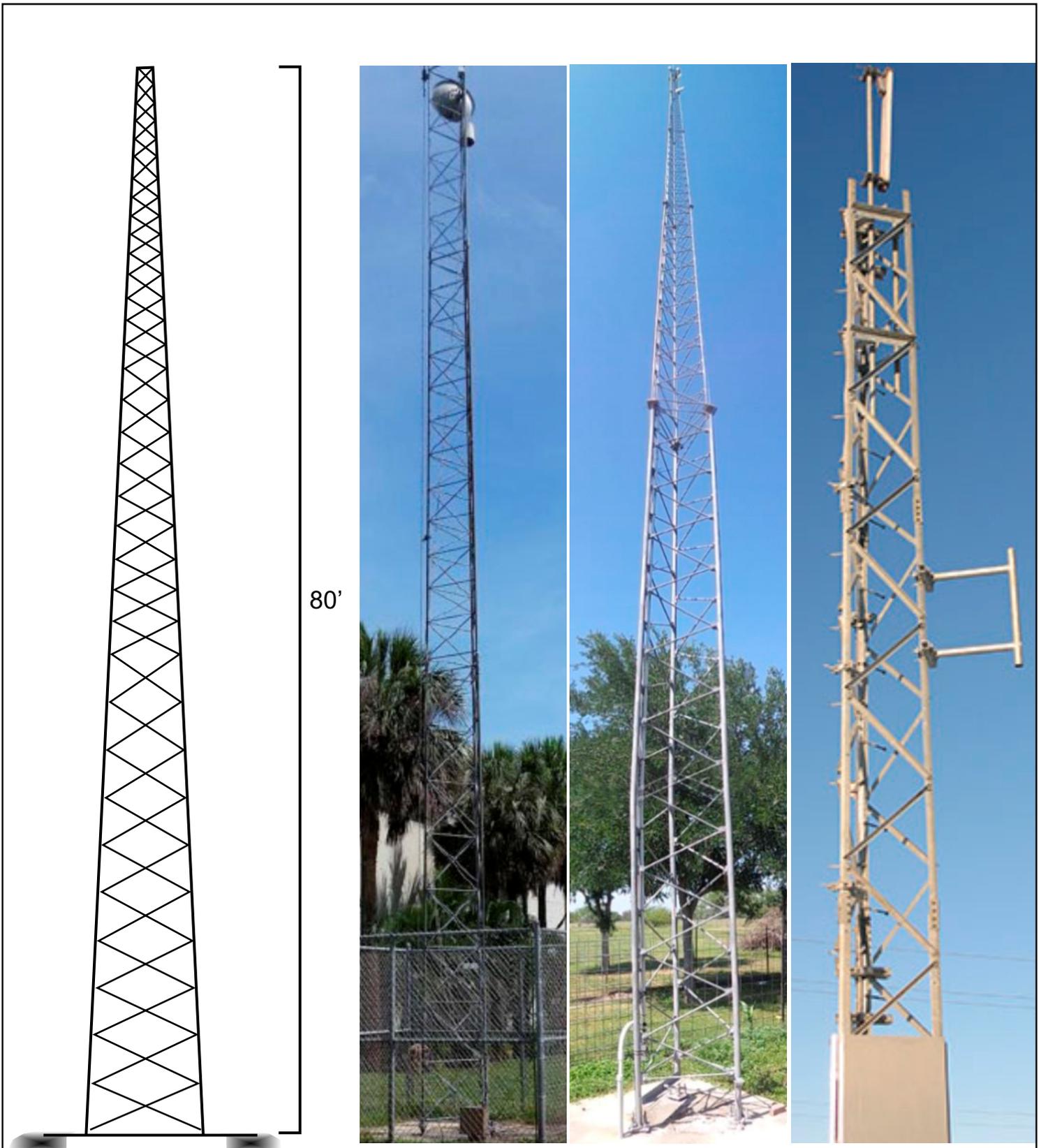
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**APM N-1. Reduce Construction Noise.** To avoid creating a substantial temporary noise increase for receptors within the Big Basin Redwood State Park and along roads that provide access to the site, if the Park is reopened to the public, construction contractors shall:

- Limit construction activities and construction traffic to daytime hours between 8:00 a.m. to 6:00 p.m.
  - Heavy equipment operation and use of impact tools, such as a hydraulic rock hammer or jackhammer, shall be restricted to weekdays (Monday through Friday).
  - Haul truck engines and other engines powering fixed or mobile construction equipment shall be equipped with adequate mufflers.
  - Haul trucks shall be operated in accordance with posted speed limits.
  - Truck engine exhaust brake use shall be limited to emergencies.
-



**Figure 2-1**  
**Preliminary Site Plan**



Note: Chalk Mountain communications tower is proposed to be a modified Rohn heavy duty structure that would be designed based on site specific conditions.

**Figure 2-2**  
**Typical 3-Legged Tube Braced**  
**Communications Structure**

## **Section 3**

### Evaluation of Environmental Impacts

### 3. Environmental Setting and Environmental Impacts

#### 3.1 Aesthetics

| AESTHETICS                |                                                                                                                                                                                                                                                                                                                                                                          | Potentially Significant Impact      | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>Would the project:</b> |                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                                    |                                     |                                     |
| a.                        | Have a substantial adverse effect on a scenic vista?                                                                                                                                                                                                                                                                                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b.                        | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?                                                                                                                                                                                                                    | <input type="checkbox"/>            | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c.                        | In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d.                        | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                                                                                                                                                                                                                                       | <input type="checkbox"/>            | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

Significance criteria established by CEQA Guidelines, Appendix G.

##### 3.1.1 Setting

The proposed Project site is an existing CAL FIRE telecommunications site (elevation of approximately 1,585 feet) located in the Santa Cruz Mountains within Big Basin State Park, approximately 20 miles north of the City of Santa Cruz and 8 miles south of the Town of Pescadero in northwestern Santa Cruz County (see Figure 1-1 at the end of Section 1). The CAL FIRE site is located along a ridgeline approximately 0.75 miles west of the actual Chalk Mountain and approximately 3 miles east of the Pacific Ocean. The surrounding area is largely undeveloped with steep terrain. Within foreground viewshed areas of the proposed Project site, the topography consists of rolling peaks and valleys of the mountaintop ridgeline with mature vegetation throughout. Several scattered rural residences are located within 4,000 feet north of the project site within this foreground area. From lower elevation middleground and background viewshed areas, the ridgeline project site may be visible from Highway 1 and limited locations within Big Basin State Park. The mostly likely viewers would be from residences within immediate foreground views, from trailheads along Highway 1 (Cascade Creek and South Whitehouse Creek trails), and roadways (Highway 1 and Whitehouse Canyon Road) with middleground/background unobstructed views of the Chalk Mountain ridgeline.

Existing views of the proposed Project site are dominated by on-site infrastructure, which includes one existing communications pole and other low profile on-site support infrastructure and buildings. The proposed Project site is located 1.7 miles east of Highway 1, which is eligible for designation as a State scenic highway (CA DOT, 2019). As noted below, Highway 1 is a designated scenic highway in the Santa Cruz County General Plan/Local Coastal Program.

The proposed Project site and surrounding area were burned by the CZU Lightning Complex Fires in August 2020. This has altered the existing visual environment, destroying or damaging a large number of trees and other vegetation in the viewshed. Over time, the landscape is expected to return to its pre-fire condition.

## Regulatory Background

### *State*

**Big Basin Redwood State Park General Plan.** The Big Basin Redwoods State Park General Plan puts forth area-specific guidelines. The proposed Project area would be within or in close proximity to the Wilderness and Backcountry areas. The management guidelines/policies applicable to this Project include (CA Parks, 2013):

**Aesthetics Goal:** Identify and protect positive aesthetic values to preserve the fundamental character of the park for future generations.

- **Aesthetics Guidelines Aesthetics 1:** Preserve and enhance positive aesthetic resources and remove or screen elements that have negative aesthetic qualities to preserve the parks scenic and recreation values.

**California Department of Transportation: Scenic Highway Program.** The Scenic Highway Program in the State of California is aimed at the protection and long-term preservation of highway corridors of scenic value to ensure the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a State scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway designation approval, and receives the designation. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for them to become designated. As previously discussed, the proposed Project site is located 1.7 miles east of Highway 1, which is eligible for designation as a State scenic but has not been officially designated (CA DOT, 2019)

### *Local*

**Santa Cruz County General Plan/Local Coastal Program.** Land use in the County is governed by the Santa Cruz County General Plan/Local Coastal Program (LCP) Land Use Plan in the Land Use Element and the Parks, Recreation, and Public Facilities Element (Santa Cruz County, 1994). LCP Implementation Plan sections that apply to the proposed Project include the following:

- **Section 13.10.510(D)(2). Height Exceptions.** Chimneys, church spires and steeples, water tanks, cooling towers, elevators, flagpoles, monuments, noncommercial radio and television antennas, fire towers, and similar structures not used for human habitation and not covering more than 10 percent of the ground area covered by the structure may be erected to a height of not more than 25 feet above the height limit allowed in any district. ... Noncommercial radio and television towers or freestanding antennas may exceed the height limits above by 25 feet with the approval of a Level IV use approval.
- **Section 13.10.660(E). Exemptions.** The following types of wireless communication facilities, devices, and activities that are exempt from the provision of SCCC 13.10.660 through 13.10.668 include the following: “wireless communication facilities and/or components of such facilities to be used solely for public safety purposes, installed and operation by authorized public safety agencies (e.g., County 911 emergency services, police, sheriff, and/or fire departments, first responder medical services, hospitals, etc.). However, “if the facility, device and/or activities requires a coastal development permit” Sections 13.10.663(A)(1) through (A)(8) shall continue to apply.
- **Section 13.10.663.** General development/performance standards for wireless communication facilities.

- (A) Site Location. The following criteria shall govern appropriate locations and designs for wireless communication facilities, including dish antennas and multi-channel, multi-point distribution services (MMDS)/wireless cable antennas, and may require the applicant to select an alternative site other than the site shown on an initial permit application for a wireless facility:
- (1) Visual Character of Site. Site location and development of wireless communication facilities shall preserve the visual character, native vegetation and aesthetic values of the parcel on which such facilities are proposed, the surrounding parcels and road right-of-way, and the surrounding land uses to the greatest extent that is technically feasible, and shall minimize visual impacts on surrounding land and land uses to the greatest extent feasible. Facilities shall be integrated to the maximum extent feasible to the existing characteristics of the site, and every effort shall be made to avoid, or minimize to the maximum extent feasible, visibility of a wireless communication facility within significant public viewsheds. Utilization of camouflaging and/or stealth techniques shall be encouraged where appropriate. Support facilities shall be integrated to the existing characteristics of the site, so as to minimize visual impact. ...
  - (3) Ridgeline Visual Impacts. Wireless communication facilities proposed for visually prominent ridgeline, hillside or hilltop locations shall be sited and designed to be as visually unobtrusive as possible. Consistent with General Plan/LCP Policy 8.6.6, wireless communication facilities should be sited so the top of the proposed tower/facilities is below any ridgeline when viewed from public roads in the vicinity. If the tower must extend above a ridgeline the applicant must camouflage the tower by utilizing stealth techniques and hiding it among surrounding vegetation.
  - (7) Coastal Zone Considerations. New wireless communication facilities in any portion of the Coastal Zone shall be consistent with applicable policies of the County Local Coastal Program (LCP) and the California Coastal Act. ...
  - (8) Consistency with Other County Land Use Regulations. All proposed wireless communication facilities shall comply with the policies of the County General Plan/Local Coastal Plan and all applicable development standards for the zoning district in which the facility is to locations, particularly policies for protection of visual resources (i.e., General Plan/LCP Section 5.10). Public vistas from scenic roads, as designated in the General Plan Section 5.10.10, shall be afforded the highest level of protection.

Other General Plan/LCP policies applicable to this proposed Project include:

- **5.10.2 Development Within Visual Resource Areas (LCP).** Recognize that visual resources of Santa Cruz County possess diverse characteristics and that the resources worthy of protection may include, but are not limited to, ocean views, agricultural fields, wooded forests, open meadows, and mountain hillside views. Require projects to be evaluated against the context of their unique environment and regulate structure height, setbacks and design to protect these resources consistent with the objectives and policies of this section. Require discretionary review for all development within the visual resource area of Highway One, outside of the Urban/Rural boundary, as designated on the GP/LCP Visual Resources Map and apply the design criteria of Section 13.20.130 of the County's zoning ordinance to such development.
- **5.10.3 Protection of Public Vistas (LCP).** Protect significant public vistas as described in policy 5.10.2 from all publicly used roads and vista points by minimizing disruption of landform and aesthetic character caused by grading operations, timber harvests, utility wires and poles, signs, inappropriate landscaping and structure design. Provide necessary landscaping to screen development which is unavoidably sited within these vistas.

- **5.10.10 Designation of Scenic Roads (LCP).** The following roads and highways are valued for their vistas. The public vistas from these roads shall be afforded the highest level of protection.

- State Highways Route I – from San Mateo County to Monterey County

### 3.1.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Aesthetics other than fulfillment of any necessary regulatory requirements.

### 3.1.3 Environmental Impacts

#### *a. Would the project have a substantial adverse effect on a scenic vista?*

**POTENTIALLY SIGNIFICANT.** During construction of the new telecommunications facilities, temporary visual changes due to human presence and on-site staging of equipment and materials would occur. Project activities would be short-term, with construction expected to span intermittently up to approximately 2 years, incorporating delays that may occur due to weather or during construction sequencing to maintain continuity of service. The use of large cranes and other equipment would temporarily degrade views of the existing facility but would be temporary.

The proposed Project would include replacing the existing communications pole (60 feet in height)<sup>2</sup> with a new 3-legged tube-braced communications tower (up to 80 feet in height) to support Mimomax technology equipment. The new tower would also be located further north from the existing tower to reduce visual impacts, but would still extend above the ridgeline. All other project components, including the proposed replacement vault, propane tank, and solar PV array, would be low profile. They would be visible to nearby trail users, but would not be prominent when viewed from areas with larger viewer groups, such as Highway 1, owing to their distance from viewers and because they would be backdropped by the surrounding topography. The visual changes at the site from increasing the communications tower height and building size may be visible to viewers from at foreground distances, as well as roadways and recreational trails scattered amongst the middleground and background viewsheds. The western boundary of the 5,900-acre West Waddell Creek State Wilderness within Big Basin State Park is 0.7 miles east of the site, with a clear line of sight from the peak of Chalk Mountain to the project site. Since the ridgeline project site would be visible from the peak of Chalk Mountain and from portions of Highway 1, a County designated scenic highway, and possibly limited locations within Big Basin State Park, this impact is potentially significant.

#### *b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

**NO IMPACT.** There are no important rock outcroppings or historic buildings on the proposed Project site. The entire proposed Project is confined within the State's existing telecommunications facility. While the proposed site is potentially visible from Highway 1, a potentially eligible State scenic highway, from a distance of approximately 1.7 miles, no scenic resources within the Project site would be substantially damaged, so no impact to a State scenic highway would occur.

#### *c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the public views of the site and its surroundings? (Public views are those that are*

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<sup>2</sup> The existing 60-foot communications pole was burned during the CZU Lightning Complex Fires in August 2020. An emergency repeater has been installed at the project site to assist with fire operations with the pole out of service.

***experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

**POTENTIALLY SIGNIFICANT.** The proposed Project is located in a non-urban area and is confined within State land at the existing CAL FIRE telecommunications facility within the Santa Cruz Mountains. There may be some vegetation clearing associated with the setup of the work area. However, upon completion of construction activities and testing of project components, all disturbed work areas (including access roads) would be restored to prior conditions. As discussed in Item (a), the presence of equipment and vehicles may be noticeable to those with foreground and middleground views of the site during construction. However, construction activities would be temporary.

The component of the proposed Project with the most prominent visual impact would be the replacement 80-foot telecommunications tower. As proposed, the new tower would be a modified Rohn heavy duty, 3-legged braced structure that would be designed based on site specific conditions (see Figure 2-2, Chalk Mountain Communications Tower). If required, guy wires would be installed. The associated electrical equipment, including the replacement vault and solar array would not significantly contribute to visual changes in the surrounding landscape due to their low height and surrounding tree canopy blocking views beyond the immediate project site. However, the increased height of the proposed replacement tower would incrementally increase the overall visibility of the existing facility from possible viewing locations along Highway 1 and within Big Basin State Park. Therefore, the impact to the visual character and quality of the public views of the site and its surroundings are considered to be potentially significant.

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

**LESS THAN SIGNIFICANT.** Construction would primarily occur Monday through Saturday (6 days a week) between 7:00 a.m. to 6:00 p.m., with nighttime construction not expected, resulting in no changes to existing lighting of the site during construction. The current 60-foot telecommunications pole at the project site does not include, nor was it recommended to include lights for air navigation safety. Based on Federal Aviation Administration (FAA) guidelines (Advisory Circular 70/7460-1) to reduce potential hazards to air navigation; likewise, the proposed 80-foot replacement tower does not require FAA review for possible inclusion of lighting for aviation safety. Additionally, there would be no new permanent source of safety lighting within the proposed Project site at existing or proposed new support facilities. Impacts would be less than significant.

## 3.2 Agriculture and Forestry Resources

### AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**

|                                                                                                                                                                                                                                                                                            | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?                                             | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?                                                                                                                                                                                                       | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Result in the loss of forest land or conversion of forest land to non-forest use?                                                                                                                                                                                                       | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?                                                                               | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

### 3.2.1 Setting

The proposed Project area is located in the Santa Cruz County's North Coast Planning area in the Existing Parks and Recreation Land Use Designation (O-R), outside of the Agriculture Land use Designation (Santa Cruz County, 1994a) and is in the zone district Parks, Recreation, and Open Space (PR). The Project area is designated as "Other Land" under the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP), which identifies various categories of farmland throughout the State (DOC, 2019a). The California Land Conservation Act of 1965 (referred to as the Williamson Act) allows counties to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use in return for a reduction in assessed property taxes (DOC, 2019b). None of the lands affected by the proposed Project are under Williamson Act contracts.

The Project area is in zoning district "PR" Parks, Recreation and Open Space. Allowed uses for PR include community centers, open space uses, recreational facilities, visitor accommodations, and timber harvesting. The proposed site is developed with existing telecommunication infrastructure and supporting structures, including a 60-foot monopole and solar panels on a concrete pad, a vault building, and an electrical box. The site is surrounded by open terrain, with no agricultural uses within or adjacent to the proposed site.

## Regulatory Background

### *Federal*

There are no federal regulations associated with agriculture and forestry resources that are relevant to the proposed project.

### *State*

**Farmland Mapping and Monitoring Program (FMMP).** The California Department of Conservation (DOC) established the Farmland Mapping and Monitoring Program (FMMP) in 1982 to assess the location, quantity, and quality of agricultural lands and conversion of these lands to other uses. Every even-numbered year, FMMP issues a Farmland Conversion Report. FMMP data are used in elements of some county and city general plans, in regional studies on agricultural land conversion, and in environmental documents as a way of assessing project-specific impacts on Prime Farmland.

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) (formerly Soils Conservation Service), classifies notable agricultural lands as follows:

- **Prime Farmland:** Land that has the best combination of physical and chemical properties for the production of crops
- **Farmland of Statewide Importance:** Similar to Prime Farmland, but with minor shortcomings (e.g., steeper slopes, inability to hold water)
- **Unique Farmland:** Land of lesser quality soils, but recently used for the production of specific high economic value crops. Land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California
- **Farmland of Local Importance:** Land essential to the local agricultural economy
- **Grazing Land:** Land on which existing vegetation is suitable for livestock grazing.
- **Urban and Built-Up Land:** Land that is occupied by buildings or other structures at a minimum density of one unit to 1.5 acres (or approximately six structures to 10 acres). These lands are used for development purposes, including residential, commercial, industrial, construction, public administration, institutional, transportation yards, airports, cemeteries, golf courses, sewage treatment, sanitary landfills, and water control structures.
- **Other Land:** Land that is not in any other map category, such as waterbodies smaller than 40 acres; low density rural developments; confined livestock, poultry, or aquaculture facilities; and brush, timber, wetland, and riparian areas not suitable for livestock grazing.

**Williamson Act.** The Williamson Act is intended to help preserve farmland by allowing counties to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use in return for a reduction in assessed property taxes. The contracted land is then restricted to agricultural and compatible uses through a rolling-term, 10-year contract between the private landowner and the local government, which has the discretion to determine uses compatible with Williamson Act enrollment. As stated in Section 51222 of the California Government Code, the minimum acreage requirement for individual parcels to enter into Williamson Act contracts is 100 acres.

### *Local*

**Santa Cruz County General Plan.** The Conservation and Open Space Element of the Santa Cruz County General Plan includes objectives and policies to protect agricultural and timber resources. Due to the project site being outside of areas designated for agricultural or timberland uses, none of the objectives and policies are applicable to this project (Santa Cruz County, 1994a and 1994b). The General Plan's Land Use Element includes a land use map designating the project area for Existing Parks and Recreation Land Use Designation.

### **3.2.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Agriculture and Forestry Resources other than fulfillment of any necessary regulatory requirements.

### **3.2.3 Environmental Impacts**

***a. Would the project 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?***

**NO IMPACT.** The proposed Project area is designated as "Other Land" on FMMP maps and is not designated Farmland. Commercial agriculture is not practiced in the area. Project construction and operation and maintenance activities would be conducted within the proposed site, which is an existing telecommunications facility and does not contain any agricultural uses. Therefore, the proposed Project would not result in conversion of Farmland to non-agricultural use. No impact would occur.

***b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

**NO IMPACT.** The proposed Project area is not zoned for agricultural use and is not under any Williamson Act contracts. The Project area is in zoning district "PR" Parks, Recreation and Open Space. Allowed uses for PR include community centers, open space uses, recreational facilities, visitor accommodations, and timber harvesting. Project construction and operation and maintenance activities would be conducted within the proposed site, which is an existing telecommunications facility and does not contain any agricultural uses. Therefore, the proposed Project would not conflict with zoning for agricultural use or a Williamson Act contract. No impact would occur.

***c. Would the project 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))?***

**LESS THAN SIGNIFICANT.** The proposed Project area is in zoning district "PR" Parks, Recreation and Open Space. Allowed uses for PR include community centers, open space uses, recreational facilities, visitor accommodations, and timber harvesting. However, while the proposed site is zoned for timber harvesting, the Project site has already been developed with an existing telecommunications facility and is within a State park. Project construction and operation and maintenance activities would be conducted only within the proposed site, which is an existing telecommunications facility and does not contain any timber harvesting uses. Therefore, the proposed Project would not conflict with zoning for forest land, timberland, or timber production. Less than significant impacts would occur.

***d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?***

**LESS THAN SIGNIFICANT.** As discussed above under Item (c), the proposed project would not affect any forest land since all proposed activities would be conducted within the project site, which contains an existing telecommunications facility. There would be no conversion of forest land to non-forest use. Therefore, the proposed project would not conflict with land used for forest land, timberland, or timber production to a non-forest use. Less than significant impacts would occur

***e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?***

**NO IMPACT.** As discussed above under Item (a), the proposed project area is designated as “Other Land” on FMMP maps and is not designated Farmland. Commercial agriculture is not practiced within the project site or adjacent areas. There would be no conversion of farmland to non-agricultural use. No impact would occur.

### 3.3 Air Quality

#### AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**

|                                                                                                                                                                                                   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Conflict with or obstruct implementation of the applicable air quality plan?                                                                                                                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Expose sensitive receptors to substantial pollutant concentrations?                                                                                                                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?                                                                                 | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.3.1 Setting

**Air Basin.** The proposed Project would be within the North Central Coast air basin and in jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). The North Central Coast air basin is comprised of Monterey, Santa Cruz and San Benito Counties. The dominating topographical features include the Santa Cruz Mountains, the Diablo Range, the Gabilan Range, and the coastal Santa Lucia Range. The mountains tend to restrict and channel the summer onshore airflow through the region, and cooler marine air is held in place by warmer air aloft that acts as a lid to inhibit vertical air movement (MBUAPCD, 2008).

Air pollution potential in the air basin increases in the fall, when the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The air flow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop to transport pollutants from either the San Francisco Bay area or the San Joaquin Valley into the North Central Coast air basin (MBUAPCD, 2008).

**Criteria Air Pollutants.** Air quality is determined by measuring ambient concentrations of certain criteria air pollutants. The criteria pollutants are ozone, respirable particulate matter (PM10), fine particulate matter (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead. Ozone is an example of a secondary pollutant that is not emitted directly from a source (e.g., an automobile tailpipe), but it is formed in the atmosphere by chemical and photochemical reactions. Reactive organic gases (ROG), including volatile organic compounds (VOC), are regulated as precursors to ozone formation.

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (U.S. EPA) have independent authority to develop and establish health-protective ambient air quality standards, although the different legislative and scientific contexts cause some diversity between State and Federal standards currently in effect in California. The monitored levels of the pollutants are compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS) to determine degree of existing air quality degradation. The standards currently in effect in California are shown in Table 3.3-1.

**Table 3.3-1. National and California Ambient Air Quality Standards**

| Pollutant                            | Averaging Time | California Standards | National Standards     |
|--------------------------------------|----------------|----------------------|------------------------|
| Ozone                                | 1-hour         | 0.09 ppm             | —                      |
|                                      | 8-hour         | 0.070 ppm            | 0.070 ppm              |
| Respirable Particulate Matter (PM10) | 24-hour        | 50 µg/m <sup>3</sup> | 150 µg/m <sup>3</sup>  |
|                                      | Annual Mean    | 20 µg/m <sup>3</sup> | —                      |
| Fine Particulate Matter (PM2.5)      | 24-hour        | —                    | 35 µg/m <sup>3</sup>   |
|                                      | Annual Mean    | 12 µg/m <sup>3</sup> | 12.0 µg/m <sup>3</sup> |
| Carbon Monoxide (CO)                 | 1-hour         | 20 ppm               | 35 ppm                 |
|                                      | 8-hour         | 9.0 ppm              | 9 ppm                  |
| Nitrogen Dioxide (NO <sub>2</sub> )  | 1-hour         | 0.18 ppm             | 0.100 ppm              |
|                                      | Annual Mean    | 0.030 ppm            | 0.053 ppm              |
| Sulfur Dioxide (SO <sub>2</sub> )    | 1-hour         | 0.25 ppm             | 0.075 ppm              |
|                                      | 24-hour        | 0.04 ppm             | 0.14 ppm               |
|                                      | Annual Mean    | —                    | 0.030 ppm              |

Notes: ppm=parts per million; µg/m<sup>3</sup>= micrograms per cubic meter; “—“ =no standard  
 Source: CARB (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>), May, 2016.

**Ambient Air Quality Attainment Status.** The U.S. EPA, CARB, and local air districts work together to classify local areas in California as in attainment, unclassified, or nonattainment. The classification depends on whether the monitored ambient air quality data show compliance (attainment), insufficient data available (unclassified), or non-compliance (nonattainment) with the ambient air quality standards.

A summary of the attainment status for North Central Coast air basin is provided in Table 3.3-2. Ambient air quality in the region is generally good, i.e., within applicable ambient air quality standards, with the exception of PM10 and ozone.

**Table 3.3-2. North Central Coast Air Basin Attainment Status**

| Pollutant                            | State Designation          | National Designation    |
|--------------------------------------|----------------------------|-------------------------|
| Ozone (O <sub>3</sub> )              | Nonattainment-Transitional | Attainment/Unclassified |
| Respirable Particulate Matter (PM10) | Nonattainment              | Attainment              |
| Fine Particulate Matter (PM2.5)      | Attainment                 | Attainment/Unclassified |
| Carbon Monoxide (CO)                 | Attainment/Unclassified    | Attainment/Unclassified |
| Nitrogen Dioxide (NO <sub>2</sub> )  | Attainment                 | Attainment/Unclassified |
| Sulfur Dioxide (SO <sub>2</sub> )    | Attainment                 | Attainment              |
| Lead and All Other Pollutants        | Attainment/Unclassified    | Attainment/Unclassified |

Source: MBUAPCD 2015. <http://mbuapcd.org/wp-content/uploads/2015/01/attainment-status-january-2015.pdf>.

**Toxic Air Contaminants.** Toxic air contaminants (TACs) are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another’s. TACs do not have ambient air quality standards, but are regulated by the local air districts using a risk-based approach. The proposed project would not be considered a stationary source subject to risk assessment programs. Diesel particulate matter (DPM) is classified as a TAC, and statewide programs focus on managing this pollutant through motor vehicle fuels, engine, and tailpipe standards because many toxic compounds adhere to diesel exhaust particles. The local air districts support these programs by issuing permits

and requiring controls for larger stationary sources of DPM, including diesel powered engines rated over 50 horsepower. Naturally occurring asbestos, serpentine, and ultramafic rock, if disturbed by construction, is another example of a TAC that occurs in some mountainous areas of California. However, the available literature (DOC-DMG, 2000) does not indicate a likelihood of encountering naturally occurring asbestos near the Chalk Mountain site.

### Regulatory Background

**Federal Clean Air Act (CAA).** The National Ambient Air Quality Standards (NAAQS) for criteria air pollutants were established in 1970 with a mandate for periodic updating. The CAA places responsibility on state and local air agencies to maintain these ambient air quality standards. In the project area, the CARB and NSAQMD share the responsibility to establish regulations, enforce air pollution control requirements, and develop the necessary air quality management strategies to achieve the NAAQS. The U.S. EPA implements most aspects of the CAA, and reviews local and state air quality management plans and regulations to ensure attainment with the NAAQS.

The federal CAA provides the authority for programs to ensure that all areas of the country achieve the federal ambient air quality standards and to protect those areas that already meet the federal ambient air quality standards. Federal Class I areas are provided the greatest protection, and the CAA prevents air quality deterioration for these areas. The nearest Federal Class I area is Desolation Wilderness, approximately 40 miles southeast of the project site.

**California Clean Air Act.** Implemented by the CARB, the California Clean Air Act establishes broad authority for California to regulate emissions from mobile sources and requires regions to develop and enforce strategies to attain California Ambient Air Quality Standards (CAAQS). In the project area, the NSAQMD is responsible for demonstrating how these standards are met.

**U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program.** The California Clean Air Act mandates that CARB achieve the maximum degree of emission reductions from all off-road mobile sources to attain the state ambient air quality standards. Off-road mobile sources include construction equipment. The earliest (Tier 1) standards for large compression-ignition engines used in off-road mobile sources became effective in California in 1996. Since then, the Tier 3 standards for large compression-ignition engines used in off-road mobile sources went into effect in California for most engine classes in 2006, and Tier 4 or Tier 4 Interim (4i) standards apply to all off-road diesel engines model year 2012 or newer. These standards and standards applicable to fleets that are already in-use address emissions of NO<sub>x</sub> and toxic particulate matter from diesel combustion.

**CARB In-Use Off-Road Diesel-Fueled Fleets Regulation.** The regulations for in-use off-road diesel equipment are designed to reduce NO<sub>x</sub> and toxic diesel particulate matter (DPM) from existing fleets of equipment. Depending on the size of the fleet, the owner would need to ensure that the average emissions performance of the fleet meets certain state-wide standards. In lieu of improving the emissions performance of the fleet, electric systems can be installed to replace diesel equipment in the fleet average calculations. Presently, all equipment owners are subject to a five-minute idling restriction in the rule (13 California Code of Regulations, Chapter 10, Section 2449).

**CARB Portable Equipment Registration Program (PERP).** This program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program that allows them to operate their equipment throughout California without having to obtain individual permits from local air districts. The NSAQMD would require the project to apply for and obtain a permit for any equipment with a portable engine having a brake horsepower rating of 50 or more, that does not provide motive power to a vehicle, unless the equipment is registered through the PERP.

**MBUAPCD Rule 200 (Permits Required) and Rule 207 (Review of New or Modified Sources).** The MBUAPCD regulates new and modified stationary sources through these rules, which incorporate state and federal permitting requirements for the New Source Review (NSR) program with MBUAPCD-specific regulations. The internal combustion engine for powering the emergency backup generator may require an Authority to Construct and a Permit to Operate from the MBUAPCD, if the rating of the engine is 50 brake-horsepower or greater (Rule 201, Sources Not Requiring Permits).

### 3.3.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Air Quality other than fulfillment of regulatory requirements.

### 3.3.3 Environmental Impacts

*a. Would the project conflict with or obstruct implementation of the applicable air quality plan?*

**NO IMPACT.** The MBUAPCD is responsible for managing local air quality and administering the mandatory California and federal programs protecting air quality. Across the entire State of California, the CARB ensures implementation of California's air quality management plans, known collectively as the State Implementation Plan. Generally, a project could be inconsistent with an applicable air quality management plan or an attainment plan if it causes population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in attainment projections. The proposed Project would not result in any population growth or new permanent full-time employment that could exceed planning projections. As such, the Project would have no potential to conflict with or obstruct implementation of any applicable air quality plan, and no impact would occur.

*b. Would the project 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?*

**DURING CONSTRUCTION, LESS THAN SIGNIFICANT.** The proposed Project construction activities include mobilizing construction equipment, crews, and materials, as necessary to replace the existing telecommunications tower, vaults, and supporting equipment, repair the existing access roads, establish staging and work areas, and install the new towers and vaults, a solar array, a replacement emergency backup generator rated at 40 kW, and the associated propane storage tank.

These construction activities would cause emissions of air pollutants due to ground disturbance and burning of fuels by the construction vehicles and off-road equipment. Approximately 20 workers on any given day would use a small fleet of diesel off-road and gasoline-powered construction vehicles including light-duty vehicles for crews and heavy-duty trucks for equipment, materials, concrete, and water. The fleet of off-road equipment would include a backhoe, loader, dozer, grader, rock hammer, jackhammer, auger, crane, and lifts.

Air pollutants that would be directly emitted in the exhaust from vehicles and equipment include ozone precursors (volatile organic compounds and NO<sub>x</sub>), CO, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and fugitive dust as particulate matter would be caused by ground-disturbing activities. Outside of staging and work areas, exhaust emissions would be caused by vehicles transporting equipment and supplies to the sites, trucks removing debris, and workers commuting along access roads and highways to and from the sites.

The construction-related emissions would occur sporadically over a period expected to span approximately 2 years and would cease upon completing site restoration. Although construction could result in

temporarily and variably increased local air quality impacts for the duration of construction activities, all activities must comply with local MBUAPCD rules regarding controlling visible emissions (Rule 400) and avoiding nuisances (Rule 402). These one-time project-level construction emissions would not result in a cumulatively considerable net increase of any criteria pollutants, including ozone precursor emissions (NO<sub>x</sub> or VOC) or exhaust emissions of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and the air quality impact of construction would be less than significant under this criterion. No mitigation is required.

**DURING OPERATION, LESS THAN SIGNIFICANT.** Operational emissions would be limited to the vehicles and equipment used for occasional operations and maintenance (O&M), and the proposed Project would not result in an incremental increase in O&M activities or emissions beyond those that occur at the existing Chalk Mountain communications tower and facilities. Accordingly, operation of the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant, and this impact would be less than significant. No mitigation is required.

***c. Would the project expose sensitive receptors to substantial pollutant concentrations?***

**LESS THAN SIGNIFICANT.** Construction would generate toxic air contaminants routinely found in the exhaust from gasoline and diesel-powered motor vehicles and equipment, such as diesel particulate matter (DPM). The proposed Project would not involve any permanent or stationary sources of air pollution other than the propane-powered replacement back-up generator for use during power outages. The proposed Project would temporarily bring construction vehicles to the existing private roads that provide access to the site. Emissions from construction vehicles passing on the access roads would contribute to an increase in the localized air pollutant concentrations at isolated residences along the private roads.

Short-term emissions associated with construction would occur sporadically over a period expected to span approximately 2 years from mobile sources traveling on the access road, and staging and work areas. Construction activities would vary in sequence, duration, and timing within the overall duration of work. Construction equipment would need to move between staging and work areas.

Construction contractors would control dust to avoid creating nuisance conditions and would take steps to control diesel exhaust, pursuant to regulations to limit idling times and requiring proper registration of portable equipment. These steps would reduce the construction phase emissions of DPM and other toxic air contaminants to ensure that sensitive receptors would not be exposed to substantial concentrations.

Future O&M emissions would be comparable to existing operations limited emissions are generated. This impact would be less than significant, and no mitigation is required.

***d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

**LESS THAN SIGNIFICANT.** The proposed Project would not include any sources likely to create objectionable odors. Construction would involve the temporary use of vehicles and construction equipment and of materials, such as fuels and lubricants, that may generate intermittent, minor odors. Emissions of this nature would occur briefly during construction and would cease with upon completion of construction. Future O&M emissions would be comparable to existing operations where no objectionable odors are generated. There would be no notable impact of objectionable odors affecting a substantial number of people, and this impact would be less than significant. No mitigation is required.

### 3.4 Biological Resources

#### BIOLOGICAL RESOURCES

Would the project:

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

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.4.1 Setting

This section describes the biological resources that occur in the proposed Project area. It includes a description of the existing biotic environment, including common plants and wildlife, sensitive habitats, special-status species and their locations in relation to the proposed Project. The Section 3.4.3 presents an analysis of potential impacts to biological resources and, where necessary, incorporates Applicant Proposed Measures (APMs – see Section 3.4.2) to reduce potential impacts to less-than-significant levels. Information used in preparing this section was derived from the Biological Resources Technical Report (BRTR) (Aspen Environmental Group, 2020).

#### Vegetation Communities

The proposed Project site is located within an existing, operating telecommunications facility. Vegetation on the Project site is composed primarily of native and non-native ruderal species that persist in areas that are frequently disturbed. The lands surrounding the Project site are vegetated by a coniferous woodland dominated by knobcone pine (*Pinus attenuata*) with other species such as Coulter pine (*Pinus coulteri*) and Douglas fir (*Pseudotsuga menziesii*) also present. The canopy is open with patches of several species of manzanita that are likely to include crinite manzanita (*Arctostaphylos crustacea* ssp. *crinite*), glossy leaved manzanita (*Arctostaphylos nummularia*), and others present in the openings. The vegetation surrounding the Project site appears to best match the description of knobcone pine forest (*Pinus attenuata* Forest Alliance) in A Manual of California Vegetation (Sawyer et al., 2009). No sensitive natural communities or sensitive vegetation is present within the proposed Project site.

The proposed Project site was burned by the CZU August Lightning Complex fire that burned through the area in late August 2020. The pine trees, Douglas fir, and other vegetation around the telecommunications facility and along the access road were burned. Many trees are dead and other have been damaged and may die as a result of the fire. Pine and Douglas fir seedlings are expected to slowly re-colonize the area along with manzanita and other shrubs. The mature conifer forest will take many years to return to pre-fire conditions.

### Special-Status Plants and Animals

A background review was completed to identify special-status plants and animals known from the region. This includes a review of records from the California Natural Diversity Database (CNDDDB; CDFW, 2021a) within 5 miles of the proposed Project area. It also includes a review of the California Native Plant Society (CNPS) On-line Electronic Inventory (CNPS, 2021) and Consortium of California Herbaria data (CCH, 2021) for special-status plant locations near the site. An IPaC informal species list from the U.S. Fish and Wildlife Service (USFWS) was also generated to identify federally protected species known from the region (USFWS, 2021).

A total of fifty-nine special-status plants were identified in the background review. Many of these have no potential to be present or to be impacted by the Proposed Project because of a lack of suitable habitat or that the Proposed Project site is outside of the elevation or geographic range of the species and these species are therefore not addressed further in this document. Those with at least a moderate potential to be present are addressed briefly below.

A total of fourteen special-status animals were identified in the background review. Several of these have no potential to be present or impacted by the proposed Project and are therefore not addressed further in this document. Eight special-status animals have a potential to be present and are addressed briefly below.

**Table 3.4-1. Special-Status Species that Could Occur in the Project Vicinity**

| Species                                                               | Status     | Habitat                                                                                                                                                                                                                            | Occurrence in Study Area                                                    |
|-----------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>PLANTS</b>                                                         |            |                                                                                                                                                                                                                                    |                                                                             |
| <i>Arabis blepharophylla</i><br><b>Coast rock cress</b>               | CRPR: 4.3  | Perennial herb; rocky areas in broad-leafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub; Monterey Co. north to Sonoma Co.; Elev. from sea level to about 1,100 m. above mean sea level (amsl). Feb-May. | <b>Moderate.</b> Suitable habitat present, known from within about 2 miles. |
| <i>Arctostaphylos andersonii</i><br><b>Anderson’s manzanita</b>       | CRPR: 1B.2 | Shrub; broad-leafed upland forest, chaparral, north coast coniferous forest; Santa Cruz, Alameda, and San Mateo Cos; Elev. of about 60 to 760 m. amsl. Nov-May.                                                                    | <b>Moderate.</b> Suitable habitat present, known from within about 2 miles. |
| <i>Arctostaphylos regismontana</i><br><b>Kings Mountain manzanita</b> | CRPR: 1B.2 | Shrub; broad-leafed upland forest, chaparral, north coast coniferous forest; granite or sandstone outcrops; San Mateo and Santa Cruz Cos.; Elev. of about 240 to 705 m. amsl. Dec-Apr.                                             | <b>Moderate.</b> Suitable habitat present, known from within about 3 miles. |

**Table 3.4-1. Special-Status Species that Could Occur in the Project Vicinity**

| Species                                                                                 | Status             | Habitat                                                                                                                                                                                                                                                                                        | Occurrence in Study Area                                                                                                                              |
|-----------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Hesperocyparis abramsiana</i> var. <i>butanoensis</i><br><b>Butano Ridge cypress</b> | FT, CE, CRPR: 1B.2 | Tree; grows on sandstone in closed-cone coniferous forest, lower montane coniferous forest, and chaparral; Santa Cruz and San Mateo Cos.; Elev. from about 400 to 490 m. amsl. Year-round.                                                                                                     | <b>Moderate.</b> Suitable habitat present, known from within about 2 miles                                                                            |
| <i>Penstemon rattanii</i> var. <i>kleei</i><br><b>Santa Cruz Mountains beardtongue</b>  | CRPR: 1B.2         | Perennial herb; sandy shale slopes; sometimes in the transition between forest and chaparral; Santa Cruz and surrounding Cos.; Elev. from about 455 to 915 m. amsl. May-Jun.                                                                                                                   | <b>Moderate.</b> Suitable habitat present, known from within about 5 miles.                                                                           |
| <i>Stebbinsoseris decipiens</i><br><b>Santa Cruz microseris</b>                         | CRPR: 1B.2         | Annual; open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes; broad-leafed and closed-cone coniferous forest, chaparral, and coastal scrub and prairie; Monterey Co. north to Marin Co.; Elev. from about 90 to 750 m. amsl. Apr-May. | <b>High.</b> Suitable habitat present. Known from within about 1 mile of the Project site.                                                            |
| <b>INVERTEBRATES</b>                                                                    |                    |                                                                                                                                                                                                                                                                                                |                                                                                                                                                       |
| <i>Bombus occidentalis</i><br><b>Western bumble bee</b>                                 | SCT                | Widespread bee in western North America. A generalist that feeds on many species of flowers. Once common but has recently declined rapidly from central CA to southern B.C., perhaps from disease.                                                                                             | <b>Moderate.</b> Suitable habitat is present within the Project site. Known historically (1971) within about 3.0 miles of the Project site.           |
| <b>AMPHIBIANS</b>                                                                       |                    |                                                                                                                                                                                                                                                                                                |                                                                                                                                                       |
| <i>Aneides niger</i><br><b>Santa Cruz black salamander</b>                              | SSC                | Mixed deciduous woodlands, coniferous forests, coastal grasslands. Found under rocks near streams, in talus, under damp logs and other objects. Not aquatic but requires damp environments and moves only during times of high humidity.                                                       | <b>Moderate.</b> Suitable habitat is present along the access route. Known from within about 2.5 miles of the Project site.                           |
| <i>Dicamptodon ensatus</i><br><b>California giant salamander</b>                        | SSC                | Occurs in coastal forests in or near clear, cold, permanent and semi-permanent streams and seeps. Aquatic breeder.                                                                                                                                                                             | <b>Moderate.</b> Suitable habitat is present along the access route. Known from within about 2.1 miles of the Project site.                           |
| <i>Rana boylei</i><br><b>Foothill yellow-legged frog</b>                                | FCT, SSC           | Found in or near rocky streams in woodland, scrub, and meadow habitats. Require shallow, flowing water in small to moderate streams with sunny and partly shaded banks for basking.                                                                                                            | <b>Low.</b> Marginally suitable habitat is present along the access route. Known historically (1953) from within about 3.0 miles of the Project site. |

**Table 3.4-1. Special-Status Species that Could Occur in the Project Vicinity**

| Species                                                                     | Status   | Habitat                                                                                                                                                                                                                                                                                                                                                                                                       | Occurrence in Study Area                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Rana draytonii</i><br><b>California red-legged frog</b>                  | FT, SSC  | Breeds in deep, still or slow-moving water with associated bulrush, willow, or cattail including sag ponds, stock ponds, irrigation ponds, siltation ponds, sewage perc. ponds, and backwaters along rivers and streams; may also breed in ponds without veg. May use upland cover (burrows, logs, leaf litter, seeps/springs) some distance from aquatic breeding sites. Designated critical habitat nearby. | <b>High.</b> Suitable habitat is present along the access route at the crossing of Cascade Creek. Known from within about 0.5 miles of the Project site.                                                                                                                                            |
| <b>REPTILES</b>                                                             |          |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                     |
| <i>Thamnophis sirtalis tetrataenia</i><br><b>San Francisco garter snake</b> | FE, SE   | Freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County.                                                                                                                                                                                                                                                                                                 | <b>Moderate.</b> Suitable habitat is present along the access route at the crossing of Cascade Creek. Known from within about 5.0 miles of the Project site.                                                                                                                                        |
| <b>BIRDS</b>                                                                |          |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                     |
| <i>Aquila chrysaetos</i><br><b>Golden eagle</b>                             | SSC, CFP | Rolling terrain where open grassland turns to scattered oaks, sycamores, or large pines. Cliff-walled canyons provide nesting habitat, but birds will also nest in medium to large trees in open areas.                                                                                                                                                                                                       | <b>High.</b> Foraging habitat present. <b>Minimal.</b> Nesting habitat is absent from the Project site.                                                                                                                                                                                             |
| <i>Asio otus</i><br><b>Long-eared owl</b>                                   | SSC      | Nests/roosts in conifer, oak, riparian, pinyon-juniper, and desert woodlands adjacent to grasslands, meadows, or shrublands for foraging. Requires dense cover for nesting. On central and southern coast, found primarily in oak and riparian.                                                                                                                                                               | <b>Low.</b> Suitable habitat present, nearest known occurrence approximately 10.0 miles to the northeast                                                                                                                                                                                            |
| <i>Brachyramphus marmoratus</i><br><b>Marbled murrelet</b>                  | FT, SE   | Nests in old-growth redwood-dominated forests, up to 25 miles inland, often in Douglas-fir. Feeds near-shore; nests inland along northern and central California coast. Critical habitat nearby.                                                                                                                                                                                                              | <b>Moderate.</b> Suitable habitat is present along the access route. Many nearby CNDDDB records, the nearest being 0.5 mi south. Project site and access route are within critical habitat. The Project site burned in August 2020 and it is likely that the suitable habitat is no longer present. |
| <b>MAMMALS</b>                                                              |          |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                     |
| <i>Antrozous pallidus</i><br><b>Pallid bat</b>                              | SSC      | Roosts singly or gregariously in rock outcrops, cliffs, caves, mines, trees, bridges, and occupied as well as vacant buildings. Found in grasslands, shrublands, woodlands, and forests from below sea level to 7000 feet elevation. Most often roosts high above the ground but has also been found roosting on the ground.                                                                                  | <b>Low.</b> Suitable habitat is present within the Project site. Not known from within 5.0 miles of the Project site. At least one CNDDDB record for this part of Santa Cruz County.                                                                                                                |

**Table 3.4-1. Special-Status Species that Could Occur in the Project Vicinity**

| Species                                                           | Status | Habitat                                                                                                                                                                                                                                                                                                                                                   | Occurrence in Study Area                                                                                               |
|-------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <i>Corynorhinus townsendii</i><br><b>Townsend's big-eared bat</b> | SSC    | Found throughout California in many habitats. Distribution is patchy and strongly correlated with caves and cave-like roosting habitat, with population centers occurring in areas dominated by exposed, cavity-forming rock and/or historic mining areas. Forages in habitat edges along streams in wooded habitats. Extremely sensitive to disturbance. | <b>Low.</b> Roosting habitat unlikely near the Chalk Mtn project site but this bat could forage over the project area. |

**Definitions of occurrence probability:** Estimated occurrence probabilities are based on literature sources cited earlier, field surveys, and habitat analyses reported here.

*Present:* Observed on the site by qualified biologists.

*High:* Habitat is a type often utilized by the species and the site is within the known range of the species.

*Moderate:* Site is within the known range of the species and habitat on the site is a type occasionally used.

*Low:* Site is within the species' known range but habitat is rarely used, or the species was not found during focused surveys covering less than 100% of potential habitat or completed in marginal seasons.

*Minimal:* No suitable habitat on the site; or well outside the species' known elevational or geographic ranges; or a focused study covering 100% of all suitable habitat, completed during the appropriate season and during a year of appropriate rainfall, did not detect the species. See BRTR, for discussion of species with minimal potential for occurrence (Aspen Environmental Group, 2020).

**STATUS CODES:**

- FE Federally Endangered
- FT Federally Threatened
- FCT Federal Candidate for listing as threatened
- SE State Endangered
- SCT State Candidate for listing as threatened
- SSC California Species of Special Concern
- FP Fully Protected
- WL Watch List

California Rare Plant Rank (CRPR) designations. Note: According to the California Native Plant Society (<http://www.cnps.org/cnps/rareplants/ranking.php>), plants ranked as CRPR 1B and 2B meet definitions as threatened or endangered and are eligible for state listing. That interpretation of the state Endangered Species Act is not in general use.

- 1B Plants rare and endangered in California and throughout their range
- 2B Plants rare, threatened or endangered in California but more common elsewhere in their range.
- 3 Plants about which we need more information; a review list.
- 4 Plants of limited distribution; a watch list

**Special-Status Plants**

**Butano Ridge cypress (*Hesperocyparis abramsiana* var. *butanoensis*)** is an evergreen tree that grows along the Butano Ridge in Santa Cruz County. It is federally listed threatened and state listed endangered. It grows on sandstone in a variety of habitats including closed-cone coniferous forest, lower montane coniferous forest, and chaparral. It is known from within about 2 miles of the proposed Project site and has a moderate potential to be present. It is unclear what impact the recent wildfire has had on this species but in general this species requires fire to trigger seed germination (USFWS, 2016). When fire frequency increases it poses a risk to this species (USFWS, 2016).

Five additional special-status wildlife species could be present in or near the proposed Project site: coast rock cress (*Arabis blepharophylla*), Anderson's manzanita (*Arctostaphylos andersonii*), Kings Mountain manzanita (*Arctostaphylos regismontana*), Santa Cruz Mountains beardtongue (*Penstemon rattanii* var. *kleei*), and Santa Cruz microseris (*Stebbinsoseris decipiens*). All of these, except coast rock cress are ranked as CRPR 1B which indicates that they are rare or endangered in California and throughout their range. Coast rock cress is ranked as CRPR 4.3 which indicates it has a limited distribution in California

## Special-Status Animals

**Foothill yellow-legged frog (*Rana boylei*) (FCT, SSC)** is a federal candidate species for listing as threatened. It is also a State species of special concern. It inhabits rocky streams in woodland, scrub, and meadow habitats. It requires shallow, flowing water with sunny and partly shaded banks for basking. It is known from within less than 5 miles of the proposed Project site and has a low potential to be present along the access road in Cascade Creek and at least one additional unnamed drainage.

**California red-legged frog (*Rana draytonii*) (FT, SSC)** is federally listed as threatened and is a State species of special concern. It typically inhabits permanent and near-permanent sunlit ponds, lakes, and streams but can also be found in springs, reservoirs, and stock ponds (USFWS 2002, 2005; Rathbun et al., 1997). It often leaves the aquatic habitats to forage in uplands and shelter in small-mammal burrows. It is known from within 1.5 miles of the proposed Project site. The proposed Project site does not provide suitable habitat for California red-legged frog, but suitable habitat is present along the access road at the Cascade Creek crossing.

**Marbled murrelet (*Brachyramphus marmoratus*) (FT, SE)** is federally listed and threatened and State listed as endangered. It spends the majority of its life on the open ocean feeding in nearshore marine waters on fish and invertebrates, but it comes inland to nest (USFWS, 1997). It typically nests in old-growth forests but will also occasionally use younger forests with an old-growth component (USFWS, 1997). It is known to nest within about 0.75 miles of the proposed Project site in the heavily forested canyon of Cascade Creek. The access road to the proposed Project site travels through the occupied habitat. The recent wild-fire may have removed the suitable mature habitat for marbled murrelet, and it is unclear how long it will take for the vegetation to return and support nesting. Much of the proposed Project site and access road are located within designated critical habitat for the marbled murrelet.

Seven additional special-status wildlife species could be present in or near the proposed Project site: Santa Cruz black salamander (*Aneides niger*), California giant salamander (*Dicamptodon ensatus*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), golden eagle (*Aquila chrysaetos*), long-eared owl (*Asio otus*), pallid bat (*Antrozous pallidus*), and western bumble bee (*Bombus occidentalis*). Several of these have a potential to forage within the proposed Project site. The Santa Cruz black salamander, California giant salamander, and San Francisco garter snake have a potential to be present along the access road but not at the proposed Project site. Suitable nesting habitat for golden eagle and long-eared owl is also present in the mountains surrounding the proposed Project site but not within the proposed Project site.

## Nesting birds

The federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503, 3503.5, and 3513 prohibit take of migratory birds, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting). No nesting birds were observed during the survey (September 2018), but nesting birds are likely to be present in the vegetation and structures, during the nesting season (January through August).

## Jurisdictional Waters

A delineation of Waters of U.S. and Waters of State was not completed for the proposed Project area; however, a baseline biological survey of the project area was completed and no potential non-wetland Waters of U.S./Waters of State, federally regulated wetlands, or CDFW-regulated streambed, were identified within the Project Site. Several jurisdictional features, including Cascade Creek, are present along the existing access road to the proposed Project Site and impacts to these drainages should be avoided.

Cascade Creek and several unnamed drainages, as well as nearby ponds, are located in the surrounding area of the proposed Project site and access road.

## Regulatory Background

### *Federal Regulations*

**Endangered Species Act.** The Endangered Species Act (ESA) (16 USC 1531 et seq.) establishes legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend.

**Section 9.** Section 9 of the ESA lists those actions that are prohibited under the ESA, including take (i.e., to harass, harm, pursue, hunt, wound, or kill) of listed species without special exemption. “Harm” is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or shelter. “Harass” is further defined as actions that create the likelihood of injury to listed species to an extent as to significantly disrupt normal behavior patterns which include breeding, feeding, and shelter.

**Section 10.** Section 10 allows for the “incidental take” of endangered and threatened species by non-Federal entities. Incidental take is defined by the ESA as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” Section 10 requires an applicant for an incidental take permit to submit a habitat conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the applicant will undertake to minimize and mitigate such impacts.

**Critical Habitat.** Designation of an area as critical habitat provides a means by which the habitat of an endangered or threatened species can be protected from adverse changes or destruction resulting from federal activities or projects. A critical habitat designation does not set up a preserve or refuge and usually applies only when federal funding, permits, or projects are involved.

**Clean Water Act.** The Clean Water Act (33 USC 1251 et seq.) establishes legal requirements for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters.

**Section 401.** Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States must obtain a State certification that the discharge complies with other provisions of the Clean Water Act. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California.

**Section 404.** Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) regulating the discharge of dredged or fill material into waters of the United States, including wetlands. Implementing regulations by the USACE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines and were developed by the EPA in conjunction with the USACE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

**Migratory Bird Treaty Act.** The Migratory Bird Treaty Act (MBTA) (16 USC 703-711) is a treaty signed by the United States, Canada, Mexico, and Japan that prohibits take of any migratory bird, including eggs or active nests, except as permitted by regulation (e.g., hunting waterfowl or upland game species). Under the MBTA, “migratory bird” is broadly defined as “any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle” and thus applies to most native bird species.

**Bald and Golden Eagle Protection Act.** The BGEPA (16 USC, 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this act. Under BGEPA, take includes “disturb,” which means “to agitate or bother a bald eagle or a golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

### ***State Laws and Regulations***

**California Endangered Species Act.** The California Endangered Species Act (CESA) (Fish and Game Code 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that affect a species listed under both CESA and the federal ESA, compliance with the federal ESA will satisfy CESA if CDFW determines that the federal incidental take authorization is consistent with CESA under Fish and Game Code Section 2080.1. For projects that will result in take of a species listed under CESA but not under the federal ESA, the applicant must apply for a take permit under Section 2081(b).

**Fully Protected Designations – California Fish and Game Code Sections 3511, 4700, 5515, and 5050.** Prior to enactment of CESA and the federal ESA, California enacted laws to “fully protect” designated wildlife species from take, including hunting, harvesting, and other activities. Unlike the subsequent CESA and ESA, there was no provision for authorized take of designated fully protected species. Currently, 36 fish and wildlife species are designated as fully protected in California, including golden eagle.

California Senate Bill 618 (signed by Governor Brown in October 2011) authorizes take of fully protected species, where pursuant to a Natural Conservation Community Plan, approved by CDFW. The legislation gives fully protected species the same level of protection as is provided under the Natural Community Conservation Planning Act for endangered and threatened species (see below).

**Native Birds – California Fish and Game Code Sections 3503 and 3513.** California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs except as otherwise provided by the Code; Section 3503.5 prohibits take or possession of birds of prey or their eggs except as otherwise provided by the Code; and Section 3513 provides for the adoption of the MBTA’s provisions (above). With the exception of a few non-native birds such as European starling, the take of any birds or loss of active bird nests or young is regulated by these statutes. Most of these species have no other special conservation status as defined above. The administering agency for these sections is the CDFW. As with the MBTA, these statutes offer no statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game migratory birds.

**Streambed Alteration Agreements – California Fish and Game Code Sections 1600-1616.** Under these sections of the Fish and Game Code, an applicant is required to notify CDFW prior to constructing a project that would divert, obstruct, or change the natural flow, bed, channel, or bank of a river, stream, or lake. Preliminary notification and project review generally occur during the environmental review process. When a fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project. CDFW jurisdiction is determined to occur within the water body of any natural river, stream, or lake. The term “stream,” which includes creeks and rivers, is defined in Title 14, CCR, Section 1.72.

### ***Regional and Local Regulations***

Santa Cruz County Code identifies several ordinances and regulations to protect environmental resources within the County. The ordinances and regulations are discussed in Title 16 of the County Code. Numerous environmental resources are protected by Title 16 including Riparian Corridor and Wetlands Protection (Chapter 16.30), Sensitive Habitat Protection (Chapter 16.32), and Significant Trees Protection (16.34) among others.

The County of San Mateo Planning and Building Department also has an ordinance that protects significant trees. The Significant Tree Ordinance (Part Three of Division VIII of the San Mateo County Ordinance Code) applies to native trees to the County that has a circumference of 38 inches (38") or more measured at four and one half feet (4½') vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes.

### **3.4.2 Applicant Proposed Measures (APM)**

In addition to compliance with regulatory requirements, the following APMs would be implemented as part of the proposed Project.

**APM B-1 Personnel Environmental Awareness Training.** An agency-approved biologist shall present an environmental-education program to all personnel assigned to the Project. The program shall describe sensitive resources and associated APMs, applicable permits, and all other agency requirements.

**APM B-2 Pre-construction Surveys and Construction Monitoring.** A qualified biologist shall be present for all Project activities that may impact special-status species habitat or jurisdictional areas. This is likely to include vegetation removal, equipment staging, equipment mobilization, site grading, and any other ground-disturbing activities.

The qualified biologist shall arrive early each morning for a daily pre-activity survey to check under and around all vehicles or heavy equipment that shall be moved during the day, to check under and around and inside materials at staging areas, to check trenches left overnight, and to otherwise ensure that no special-status animals could be harmed when workers arrive. If a special-status animal is found, visible markers such as pinflags or flagging shall be used to show avoidance areas and workers shall be informed of prohibited activities near the animal until it moves away on its own. Work may need to be halted to ensure animal safety. To reduce potential impacts to California red-legged frog, the qualified biologist shall install avoidance fencing along both sides of the access road within 100 feet of the crossing of Cascade Creek. The qualified biologist shall ensure that the animal is not harassed or harmed.

The qualified biologist shall complete a daily monitoring form describing activities of the day and any relevant violations, incidents, or sightings, including steps taken to resolve violations or problems. These forms shall be compiled into a final report to show compliance with regulations. The qualified biologist shall also ensure the following:

- Trenches or holes that must be left unfilled overnight shall be entirely covered and secured to prevent wildlife from falling in or becoming trapped. If trenches or holes cannot be covered, escape ramps shall be provided allowing animals to escape.

- Staging and parking areas shall be sited in previously disturbed areas to avoid natural areas, sensitive habitats, and jurisdictional areas.
- Small-mammal burrows, debris piles, logs, boards, rock piles, and dense vegetation shall be avoided to the maximum extent possible. Burrows that must be destroyed for construction shall be hand excavated or mechanically excavated under the supervision of an agency-approved biologist.
- There shall be no food-related trash, or any other trash, left on site at the end of each work day. This includes food wrappers, drink cans or bottles, bread crusts, orange or banana peels, etc. Human trash, especially food-related trash, attracts predators.
- No one shall capture and/or relocate California red-legged frogs or other listed species within the proposed Project site or along the access road.
- All sightings of special-status species shall be reported to the California Natural Diversity Database. Observations of listed species shall be reported directly to the USFWS and CDFW, as applicable.

**APM B-3 Special-status Bird Avoidance and Minimization.** To avoid or minimize impacts to marbled murrelet, golden eagle, long-eared owl, and other migratory birds, construction shall take place outside the nesting season for migratory birds, as feasible. Such activities include construction, road grading, vegetation trimming or removal, and equipment staging. The nesting season is generally accepted as February 15 through August 15. No restrictions would be necessary for activities that take place outside the nesting season (i.e., between August 16 and February 14).

If work must take place during the nesting season (February 15 through August 15), a nesting bird survey shall be conducted by a qualified biologist prior to planned activities. The survey shall be conducted by a qualified biologist no more than two weeks prior to project initiation within 500 feet of the project footprint. The survey area shall be based on the full project footprint, including the active construction site and the locations of staging areas, vegetation removal, and other areas of impact.

If an active nest is found, a visible no-disturbance buffer zone shall be established around it. Currently accepted CDFW and USFWS nesting-bird buffer distances are 250 feet for passerines and 500 feet for raptors. The qualified biologist shall be authorized to reduce these buffers to ensure that the nesting birds are not impacted but also to allow construction to proceed, when feasible.

Within established buffer zones, no project-related activities shall take place during the nesting season, with the exception of vehicle passage (no stopping, idling, or other noise generation allowed), or until the qualified biologist determines that the nest is no longer active. For project-related activities taking place outside the nesting season, no precautions for nesting birds would be necessary.

**APM B-4 Implement Best Management Practices to Minimize Impacts to Jurisdictional Areas.** In addition to SWPPP requirements, the following Best Management Practices (BMPs) shall be implemented during all construction and maintenance activity in or near drainages, waters, and wetlands:

- Vehicles and equipment shall not operate in ponded or flowing water.
- No construction activities or vegetation clearing shall be authorized within drainages.

- Water containing mud, silt, or other pollutants from grading or other activities shall be prevented from entering drainages.
- Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from Project-related activities, shall not be allowed to contaminate soil or enter drainages.
- No equipment maintenance or refueling shall occur outside of developed areas or within 150 feet of any streambeds or drainages.
- If erosion control material is used to prevent erosion, it shall be certified weed free and shall not contain monofilament plastic.

### 3.4.3 Environmental Impacts

- a. Would the project 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?*

**POTENTIALLY SIGNIFICANT.** Eight special-status animals, including two listed species and one candidate species, have a potential to be present in the proposed Project site or along the access road. In addition, one listed plant and several CRPR rank 1B plants have a potential to be present in the proposed Project site or along the access road. Impacts and proposed APMs are addressed below.

#### Special-Status Plants

Butano Ridge cypress is the only listed threatened or endangered plant that has a potential to be present in the proposed Project site. Anderson's manzanita, Kings Mountain manzanita, Santa Cruz Mountains beardtongue, and Santa Cruz microseris are all ranked as CRPR 1B and have at least a moderate potential to be present. Coast rock cress also has a potential to be present; however, CRPR rank 4 species have a limited range and are not considered rare or special-status. Direct impacts to special-status plants in the proposed Project site may include the temporary or permanent removal, vegetation trimming, or by trampling or crushing during construction. Indirect impacts may include dust, hazardous materials, or invasive species.

APM B-2 (Pre-construction Survey of Project Site and Access Road) would prevent impacts to these species by requiring a focused survey of the proposed Project site and access road for special-status plants. APM B-4 (Pre-construction Surveys and Construction Monitoring) would require that if these plants are found during the survey they shall be flagged and avoided during the Project. In addition, APM B-3 (Personnel Environmental Awareness Training) would ensure that construction personnel are aware of these resources, their locations, and that they are to be protected. With the implementation of the proposed measures, impacts to special-status plants would be less than significant.

#### Special-Status Animals

California red-legged frog and marbled murrelet are both federally listed threatened species, and State species of special concern and State listed endangered, respectively. The San Francisco garter snake is a federally and State listed endangered species. Foothill yellow-legged frog and western bumble bee are federal and State candidate species for listing, respectively. Santa Cruz black salamander, California giant salamander, golden eagle, long-eared owl, and pallid bat are all State species of special concern.

Direct impacts to special-status animals in the proposed Project site and along the access road may include crushing by vehicles during construction activities, or other direct cause of mortality. Indirect impacts may include noise, visual disturbance, dust, or hazardous materials. APM B-2 (Pre-construction Survey of Project Site and Access Road) would reduce potential impacts to these species by requiring a focused survey of the proposed Project site and access road for special-status wildlife and habitats. APM B-4 (Pre-construction Surveys and Construction Monitoring) would require that if these animals or habitats are found during the survey they shall be flagged and avoided during the Project. In addition, APM B-3 (Personnel Environmental Awareness Training) would ensure that construction personnel are aware of these resources, their locations, and that they are to be protected.

APM B-5 (Special-status Bird Avoidance and Minimization) would avoid or minimize impacts to special-status birds that may nest in or adjacent to the proposed Project site and access road. This measure would also avoid impacts to nesting birds. APM B-6 (Bat Roost Minimization and Avoidance) would avoid impacts to maternal bat roosts and would therefore avoid any significant impacts to pallid bats. APM B-7 (Implement Best Management Practices to Minimize Impacts to Jurisdictional Areas) would further reduce potential impacts to aquatic species by ensuring that the Project does not impact nearby aquatic resources.

However, impacts to special-status species could still occur including direct impacts to California red-legged frog during use of the access road, especially during wet conditions, and indirect impacts to the marbled murrelet as a result of construction and vehicle noise during nesting season. Both of these species are federally listed threatened species and have a high potential to occur along the proposed Project access road. The federally and State endangered San Francisco garter snake also has a moderate potential to occur along the access road. Specific measures to avoid or minimize any potential take of these species would be developed with USFWS during Section 10 consultation, which requires an applicant to submit a habitat conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the applicant will undertake to minimize and mitigate such impacts. In addition, the marbled murrelet and San Francisco garter snake are State endangered species and CDFW would need to determine that the federal incidental take authorization under either the Section 7 or Section 10 consultation would be consistent with the California Endangered Species Act under Fish and Game Code Section 2080.1. Therefore, until such measures are developed, impacts to special-status animals are potentially significant.

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

**LESS THAN SIGNIFICANT.** The vegetation present within the proposed Project area includes knobcone pine forest (*Pinus attenuata* Forest Alliance) as described in *A Manual of California Vegetation* (Sawyer et al., 2009) and previously developed areas. These are not sensitive natural communities or riparian vegetation types identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The access road to the proposed Project site crosses through a riparian corridor; however, no Project activities are proposed in these areas and impacts to the riparian habitat is not expected.

Designated critical habitat for marbled murrelet is present in the proposed Project site and along the access road. Primary constituent elements (PCEs) for the marbled murrelet include individual trees with potential nesting platforms and forested areas within 0.5 miles of individual trees with potential nesting platforms, and with a canopy height of at least one-half the site-potential tree height. This includes all such forest, regardless of contiguity. The recent wildfire may have removed or damaged the habitat and it may no longer provide the PCEs for marbled murrelet. Regardless, the access road is likely to cross

through designated critical habitat that may provide the PCEs. Impacts to critical habitat will be avoided with APMs B-2 (Pre-construction Survey of Project Site and Access Road) and B-4 (Pre-construction Surveys and Construction Monitoring) by clearly defining the limits of the critical habitat and ensuring that these areas are not impacted by the proposed Project. Construction traffic would be allowed to travel through the critical habitat but not to stop, refuel, or modify the habitat. With the implementation of these APMs, impacts to marbled murrelet critical habitat would be avoided and the impact would be reduced to a level of less-than-significant.

***c. Would the project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?***

**LESS THAN SIGNIFICANT.** A delineation of Waters of U.S. and Waters of State was not completed for the proposed Project; however, a baseline biological survey of the proposed Project site was completed and several potential non-wetland Waters of U.S./Waters of State, federally regulated wetlands, or CDFW-regulated streambed, were identified along the access road. The proposed Project is not expected to impact these jurisdictional features. To ensure that these features are not impacted, several APMs have been included to ensure avoidance. These measures include APMs B-2 (Pre-construction Survey of Project Site and Access Road), B-3 (Personnel Environmental Awareness Training), B-4 (Pre-construction Surveys and Construction Monitoring), and B-5 (Implement Best Management Practices to Minimize Impacts to Jurisdictional Areas). With the implementation of these APMs, the features will be clearly delineated in the field for avoidance, sediment and other contaminants will be prevented from entering these areas, construction personnel will be made aware of these areas and the measures to protect them. With the implementation of these APMs, Project impacts to wetlands would be reduced to a level of less-than-significant.

***d. Would the project 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 wildlife nursery sites?***

**LESS THAN SIGNIFICANT DURING CONSTRUCTION, POTENTIALLY SIGNIFICANT DURING OPERATIONS.** The Migratory Bird Treaty Act (MBTA) affords protection to all native and some naturalized birds, including active nests of such birds. The vegetation in and around the proposed Project area may provide suitable habitat for nesting birds. The structures within the proposed Project area may also provide suitable habitat for nesting birds. With implementation of APM B-5 (Special-status Bird Avoidance and Minimization), impacts to nesting birds during construction would be reduced to a level of less-than-significant. The proposed Project includes installation of a communications tower with potential guy wires. As proposed, the communications tower would not pose an electrocution threat to migratory birds; however, if guy wires are used, they could pose a threat of bird strike. However, guy wires are used on the existing wood pole, so there would be minimal added risk.

***e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

**NO IMPACT.** Title 16 (Environmental and Resource Protection) of the Santa Cruz County Code identifies several ordinances and regulation to protect environmental resources within the County. Several of these apply to the proposed Project site and access road including Chapter 16.30 (Riparian Corridor and Wetlands Protection), 16.32 (Sensitive Habitat Protection), and 16.34 (Significant Trees Protection). San Mateo County also has a Significant Tree Ordinance that protects native trees and requires a removal permit. The

proposed Project is not expected to impact riparian corridors, sensitive habitats as identified in Chapter 16.32, or trees and therefore no impacts would occur.

***f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan?***

**NO IMPACT.** The proposed Project site is not within any adopted or proposed Habitat Conservation Plan. The access road to the proposed Project site is; however, within an adopted Habitat Conservation Plan. Pacific Gas and Electric (PG&E) Operations and Maintenance Habitat Conservation Plan covers a large portion of the Bay Area, including all of San Mateo County. This HCP applies only to PG&E and therefore no impacts would occur.

### 3.5 Cultural Resources

#### CULTURAL RESOURCES

Would the project:

|                                                                                                                | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|----------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?      | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Disturb any human remains, including those interred outside of dedicated cemeteries?                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.5.1 Setting

##### Approach to Analysis of Cultural Resources and Previous Cultural Resources Studies

###### *Cultural Records Search Results*

Information presented in this section was gathered from a Cultural Resources Phase I Evaluation by Aspen Environmental Group (Aspen). Aspen performed an in-person records search at the California Historical Resources Information System (CHRIS) Northwest Information Center (NWIC), Sonoma State University, Sonoma, California, on October 11, 2018. The NWIC is the official repository for all cultural resources site records and reports for Humboldt County. The NWIC records search results are presented below (Table 5.5-1).

The records search at the CHRIS NWIC identified one previously completed survey report located within the proposed Project area (Table 5.5-1, below). This survey was conducted in 2009 and included the entire project area. This study found no sensitive historical or prehistoric resources were identified within the project area and no archaeological resources, or tribal cultural resources were identified in the project area or within the 1/8-mile surrounding radius.

**Table 3.5-1. CHRIS Cultural Resources Reports**

| Report Number | Year | Title                                                                                                 | Author                             | Location       |
|---------------|------|-------------------------------------------------------------------------------------------------------|------------------------------------|----------------|
| S35684        | 2009 | Archaeological Investigations of the Cal Fire Chalks Repeater Project, Santa Cruz County, California. | L. Kyle Napton and E.A. Greathouse | Chalk Mountain |

On August 17, 2018, Aspen requested a search of the Native American Heritage Commission’s (NAHC) Sacred Lands File database. On August 20, 2018, the NAHC responded with a negative result for known sacred sites or tribal cultural resources as defined by the CEQA are documented within the proposed Project area or surrounding quarter-mile radius.

###### *Pedestrian Survey Results*

Although the proposed Project area was surveyed previously in 2009 with negative results, an additional survey was conducted because it had been 10 years since the previous survey. Aspen therefore conducted an intensive archaeological pedestrian survey of the Project area and 30-meters adjacent to the Project

area. The survey consisted of an opportunistic survey, depending on topography and proximity to existing developed structures. Evidence of past human occupation and use of the area was searched for carefully by observing the ground surface for any changes in soil discoloration or cultural materials. Objects that typically would suggest human use of the area include stone tools, beads, ground stone, historic cans and other historic debris. Archaeological subsurface testing was not conducted. Attention was given to observing the ground surface for indication of buried human remains present in the project area. Joshua Noyer, MA, a qualified archaeologist per the Secretary of the Interior's Qualification Standards for Professional Archaeology, performed the pedestrian survey on October 18, 2018. No cultural resources were identified during the intensive survey.

## Prehistory

Cultural resources are traces of human occupation and activity. In northern California, cultural resources extend back in time for at least 9,000-11,500 BP with Native American occupation and use of the Santa Cruz Mountains extending minimally to 8,000 BP. Changes in the Bay Area and peninsular landscape that have occurred since humans first occupied the region at approximately 10,000 BP led many of the landforms originally available for human habitation to be inundated as the sea rose and flooded the Franciscan Valley and extensive areas along the coast, inundating and burying the sites with sediments. Beginning with the earliest systematic studies of central California and Bay Area archaeology, researchers have recognized that a significant portion of the archaeological record may lie buried in the fans and massive alluvial plains of the lowland valleys (Heizer 1949, 1950, 1952; Heizer and Cook 1953; Lillard et al., 1939; Meighan, 1965).

Archaeological research in the region has been interpreted using a three-part cultural chronological sequence, the Central California Taxonomic System (CCTS) was developed by archaeologists to explain local and regional cultural change in prehistoric central California from about 4,500 BP to the time of European contact (Lillard et al., 1939; and Beardsley, 1948 and 1954). This classification scheme, consisting of three horizons — Early, Transitional, and Late — has been revised although the prior nomenclature (Early, Middle, Late Horizon) is still in common use (Fredrickson, 1994). Moratto (1984) suggests the Early Horizon dated to ca. 4,500 to 3,500/3,000 BP with the Middle Horizon dating to circa 3,500 to 1,500 BP and the Late Horizon dating to circa 1,500 BP to Spanish Contact.

The **Paleoindian and Early Holocene Period** (11,500 to 4,500 BP) is largely contemporaneous with the Clovis and Folsom periods of the Great Plains and the southwest and generally considered to be represented by wide-ranging mobile hunters and gatherers who regularly exploited large game. In California, the Terminal Pleistocene is most often represented by isolated fluted points. Early Holocene prehistoric material in the Bay Area is sparse; only four sites date to this period: two sites at Los Vaqueros Reservoir (Contra Costa County [CCO]-696 and -637) in the East Bay, the Blood Alley site (Santa Clara County [SCL]-178) in the Coyote Narrows of the Santa Clara Valley, and SCR-177 at Scott's Valley in the Santa Cruz Mountains (Hildebrandt, 1983). Their deposits, which indicate diverse resource exploitation, demonstrate that the general region was occupied throughout this time segment, but strong insight into the nature of this early occupation is still lacking.

The **Early Horizon** (4,500 to 3,500 BP) is characterized by a mobile forager pattern throughout the Bay Area. The milling slab and hand-stone, as well as a variety of large, wide-stemmed and leaf-shaped projectile points, all emerged during this period. Local Franciscan chert dominated the Early Holocene Santa Cruz Mountains components. The Metcalf Creek Site (SCL-178), a deeply stratified deposit in the southern Santa Clara Valley, yielded cultural materials as deep as 9 meters below the surface (Fitzgerald and Porcasi, 2003). New ground-stone technology and the first cut shell beads in mortuaries signal sedentism, regional

symbolic integration, and increased regional trade in the San Francisco Bay and Peninsular areas, beginning at 3500 BP. The earliest cut bead horizon, the Olivella grooved rectangle, dated to 2400 to 4500 BP, is represented by a single bead from the San Bruno Mound.

**Middle Horizon** (3,500 to 1,500 BP) sites are more common and are relatively better known than Early Horizon sites. These sites usually have deep, stratified deposits that contain large quantities of ash and charcoal, fire-altered rock, and fish, bird, and mammal faunal remains. The presence of significant numbers of mortars and pestles is suggestive of a growing reliance upon gathered plant foods as opposed to hunted animal foods. The aboriginal populations were unchanged from Early Horizon peoples. Burials were usually flexed and only a small proportion of the graves contained artifacts, which were usually utilitarian. An increase in violence is suggested by the number of Middle Horizon burials found with projectile points embedded in the bones or with other marks of violence (Fitzgerald, 1993). During this period, technological and environmental factors provide dominant themes for changes in social and economic structure. Based on the cultural materials from site of this period, an acorn economy was introduced, with mortars and pestles becoming dominant in the tool kit. Hunting continued to be important; however, a more diversified and sedentary economy begins to develop, accompanied by population growth and expansion (Cartier, 1988). Changes in exchange or in social relations appear to have little impact. Growth of sociopolitical complexity with the development of status distinctions based on wealth began to emerge. Shell beads gained importance, possibly indicators of both exchange and status. Emergence of group-oriented religious organizations and a more organized religious system began at the end of period. Greater complexity of trade and idea exchange systems with evidence of regular, sustained exchanges between groups also highlights this period. However, evidence for well-established territorial boundaries is not present.

**Late Horizon** (1,500 BP to Spanish Contact A.D.1769) demonstrate several technological and social developments compared to their predecessors. Bow and arrow introduced replace atlatl and dart. Grave offerings, and occasional cremation of the dead are among the known traits of this horizon. Dietary emphasis on acorns and seeds was prevalent in the materials recovered from excavated sites. Evidence of large, expansive trade with surrounding and other areas was well established for various raw materials. Territorial boundaries became well established with evidence of distinctions in social status linked to wealth becoming increasingly common (Levy, 1978). During the Late Horizon period, sites are the most numerous and are composed of extensive midden deposits. Important mound/midden sites along the Peninsula margins include the University Village site (SMA-77), the San Bruno Mountain mound (SMA-40), and the Ynigo Mound (SCL-12/H). The artifact assemblages include various types of beads and pendants, bone tools, “flower pot” mortars, and the bow and arrow. Funerary rituals were strongly patterned and included flexed interments and “killed” grave offerings, along with occasional cremations. Extensive trade relations also appear to have flourished with neighboring groups (Clark, 1989; Levy, 1978).

### **Ethnography**

The aboriginal inhabitants of the Santa Cruz Mountains belonged to a group known as the “Costanoan,” derived from the Spanish word Costanos (“coast people” or “coastal dwellers”) who occupied the central California coast from the northern tip of the San Francisco Peninsula to Big Sur in the south and as far east as the Diablo Range. An estimated 1,400 or more persons of partial Costanoan descent currently reside in the greater San Francisco Bay Area. These individuals now generally prefer the term Ohlone to identify themselves (Margolin, 1978).

The Costanoan language is part of the Penutian language family spoken by other California Indian groups known as the Wintun, Maidu, Miwok, and Yokuts. The language group is subdivided into eight distinct languages (Levy, 1978:485). Awaswas was spoken among the coastal dwellers of the Costanoan between

Franklin Point and Aptos. Linguistic analysis suggests that the Costanoans moved into the Bay Area from the San Joaquin and Sacramento River regions around 1,500 years BP and replaced the original Hokan speaking population of the Bay Area. This suggested replacement appears to coincide with the appearance of Late Horizon artifact assemblages.

Around this time, the Costanoan lived in approximately 50 separate and politically autonomous tribelets with each group having one or more permanent villages surrounded by a number of temporary camps used to exploit seasonally available floral and faunal resources (Levy, 1978:485, 487). The locations of many of the tribelets and settlements are inexact and remain a subject of anthropological debate because of incomplete historic records.

The Costanoan practiced a hunting and collecting economy focusing on the collection of seasonal plant and animal resources including tidal and marine resources from San Francisco Bay. They traded with neighboring groups including the Yokuts to the east and exported shells, salt and cinnabar among other items. Mission Santa Clara and Mission San José were established in the South Bay in the late 1770s and Mission Santa Cruz in 1791. The aboriginal lifeway largely disappeared by 1810 due to its disruption by introduced diseases, a declining birth rate, and the impact of the mission system. Missionization not only decimated local populations but also relocated native peoples from throughout north-central California into the San José area.

The Costanoan/Ohlone were transformed from hunters and gatherers into agricultural laborers (and in some cases, craft artisans) who lived at the missions and worked with former neighboring Native American groups such as the Esselen, Yokuts, and Miwok (Levy, 1978:486).

With secularization of the missions by Mexico in 1834, most of the aboriginal population gradually moved to ranchos to work as manual laborers (Levy, 1978:486). During the Mexican Period several ranchos were granted to Native Americans, such as Rancho Ulistac and the Rancho Posolmi. Rancho Ulistac, located on the west bank of the Guadalupe River in the City of Santa Clara, was granted to “emancipated” Mission Indians Marcello, Pio, and Cristobal in 1845 (Hendry and Bowman 1940:872-873). Rancho Posolmi, located along the Guadalupe River at the northeastern boundary of the City of Mountain View, was granted to Lopez Indigo (or Yndigo) in 1881.

### **Regional History**

The Spanish were the first European explorers to visit the Santa Cruz mountains as part of the Portola Expedition (1769-1770). Following the expedition, the Spanish began to construct a series of Missions with Mission Santa Cruz constructed and dedicated in 1794 (Cowan, 1956). The mission system was secularized in 1834; however, between 1840 and 1857 a series of earthquakes largely destroyed the Mission Santa Cruz. Following the secularization that resulted from Mexican independence from Spain, Mexican land grants were an important part of early settlement of the Santa Cruz county region. While there are more than 20 grants in Santa Cruz county during the first allotment, none of the grants overlap with the Project area.

In 1902 the state acquired some 18,000 acres in the Santa Cruz Mountains and created a state park that would eventually in 1927 be given the name Big Basin (Heacock, 1987). During the period from 1933 to 1941 Civilian Conservation Corps projects created numerous trails, access roads and fire breaks allowing for access to the park (Engbeck, 2002).

## Regulatory Background

Numerous laws, ordinances, regulations, and standards on federal, state, and local levels seek to protect and manage cultural resources. The project is not located on federally owned or managed lands, which precludes the evaluation of the project under Section 106 of the National Historic Preservation Act. Applicable State of California regulations include the CEQA PRC Sections 21000 et seq., Section 5024, Section 5024.5; California Code of Regulations (CCR) Title 14, Chapter 3, Sections 15000 et seq.); and Assembly Bill (AB) 52. These are discussed in detail below.

### *State*

**California Environmental Quality Act (CEQA) 1970 (PRC Sections 21000 et seq., Section 5024, Section 5024.5; CCR Title 14, Chapter 3, Sections 15000 et seq.)** establishes that historical, archaeological, and paleontological resources must be afforded consideration and protection by the CEQA (14 CCR Section 21083.2, 14 CCR Section 15064). CEQA Guidelines define significant cultural resources under three regulatory designations: historical resources, unique archaeological resources, and tribal cultural resources.

Pursuant to Guideline 15064.5(a), the term “historical resource” includes: a resource listed in or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR). A resource included in a local register of historical resources...or identified as significant in a historical resource survey...shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

As defined in PRC Section 21083.2(g), a “unique archaeological resource” is not eligible for the CRHR but is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- It has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- It is directly associated with a scientifically recognized important prehistoric or historical event or person.

PRC Section 21074 defines a Tribal Cultural Resource as “a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.” TCRs also include “non-unique archaeological resources” that may not be scientifically significant, but still hold sacred or cultural value to a consulting tribe. A resource shall be considered significant if it is: (1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PCR § 5020.1(k) (discussed in detail above); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in of PCR § 5024.1(c). In applying these criteria, the lead agency must consider the significance of the resource to a California Native American tribe.

**Native American Historic Resource Protection Act (PRC Section 5097 et seq.; Section 5097.9; Section 5097.98)** establishes that both public agencies and private entities using, occupying, or operating on public property under a public license, permit, grant, lease, or contract on state property under public permit, shall not interfere with the free expression or exercise of Native American religion, and shall not cause severe or irreparable damage to Native American sacred sites.

**California Health and Safety Code 7050.5** establishes that any person who knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any location without authority of law is guilty of a misdemeanor. It further defines procedures for the discovery and treatment of Native American human remains. All work at the site of discovery must cease immediately, and notification made to the County Coroner. Within 48 hours of discovery, the Coroner must determine if the remains are Native American in origin. If this is determined, then the Coroner must notify the NAHC within 24 hours.

**Public Resources Code 5097.98 (b) and (e)** require a landowner on whose property Native American human remains are found to limit further development activity in the vicinity until he/she confers with the NAHC-identified Most Likely Descendants (MLDs) to consider treatment options. In the absence of MLDs or of a treatment acceptable to all parties, the landowner is required to reenter the remains elsewhere on the property in a location not subject to further disturbance.

#### **Local**

**Santa Cruz County General Plan.** The Santa Cruz County General Plan includes a Conservation and Open Space Element, which addresses archaeological and historic resources of Santa Cruz County (Santa Cruz County, 1994). Because the project site and surrounding area do not contain any identified cultural resources, a review of the Conservation and Open Space Element found no policies directly relevant to the proposed Project.

### **3.5.2 Applicant Proposed Measures (APMs)**

In addition to compliance with regulatory requirements, the following APMs would be implemented as part of the proposed Project.

**APM CR-1 Train Construction Personnel.** Prior to the initiation of construction, all construction personnel shall be trained, by a qualified archaeologist, regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. The State shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Workers' Environmental Training Program, so they are aware of the potential for inadvertently exposing buried archaeological deposits. The State shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources and anticipated procedures to treat unexpected discoveries.

**APM CR-2 Inadvertent Discovery of Historical Resources, Unique Archaeological Resources or Tribal Cultural Resources.** If previously unidentified cultural resources are identified during construction activities, construction work within 50 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the

significance of the resource. The archaeologist, in consultation with the State, the State Historic Preservation Officer, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers, qualify as a unique archaeological resource under California Environmental Quality Act Section 21083.2, or are determined to be tribal cultural resource as defined in Section 21074. If previously unidentified cultural resources or tribal cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist and tribal representative assesses the significance of the resource. The archaeologist, in consultation with the State, SHPO, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers, qualify as a unique archaeological resource under CEQA Section 21083.2 or determined to be tribal cultural resource as defined in Section 21074.

**APM CR-3 Treatment of Human Remains.** All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 50 feet of the discovery area must cease immediately, nothing is to be disturbed, and the area must be secured. The County Coroner's Office must be called. The Coroner has two working days to examine the remains after notification. The appropriate land manager/owner of the site is to be called and informed of the discovery. If the remains are located on federal lands, federal land managers, federal law enforcement, and the federal archaeologist must be informed as well, due to complementary jurisdiction issues. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, as it could be a crime scene. The Coroner will determine if the remains are archaeological/historic or of modern origin and if there are any criminal or jurisdictional questions.

After the Coroner has determined the remains are archaeological/historic-era, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.

The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours from the time they are given access to the site to make recommendations to the landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours from the time they are given access to the site, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC.

According to the California Health and Safety Code, six (6) or more human burials at one (1) location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

### 3.5.3 Environmental Impacts

**a. *Would the project cause a substantial adverse change in the significance of an historical resource pursuant to § 15064.5 [§ 15064.5 generally defines historical resource under CEQA]?***

**LESS THAN SIGNIFICANT.** No sensitive historical resources were identified within the proposed Project area. However, previously unknown buried historical resources could be discovered and damaged, or destroyed, during ground disturbing work, which would constitute a potentially significant impact. Implementation of APMs CR-1 and CR-2 would ensure that construction personnel understand the procedures to be followed upon the discovery of cultural materials and would evaluate and protect unanticipated discoveries of historical resources or tribal cultural resources, thereby reducing this impact to less than significant.

**b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

**LESS THAN SIGNIFICANT.** No unique archaeological resources have been identified in the proposed Project area; however, previously unknown buried archaeological resources could be discovered and damaged, or destroyed, during ground disturbing work. Implementation of APMs CR-1 and CR-2 would ensure that construction personnel understand of the procedures to be followed upon the discovery of cultural materials and would evaluate and protect unanticipated discoveries of archaeological resources, thereby reducing this potential impact to a less than significant level.

**c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?***

**LESS THAN SIGNIFICANT.** There is no indication that human remains are present within the project area. The limited nature of the proposed ground disturbance in an already disturbed area makes it unlikely that human remains would be unearthed during construction. However, it is possible that previously unknown human remains could be discovered and damaged or destroyed during ground disturbance. Implementation of APM CR-3, which requires evaluation, protection, and appropriate disposition of human remains, would ensure that this potential impact would be less than significant.

### 3.6 Energy

| ENERGY                                                                                                                                                                            | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| Would the project:                                                                                                                                                                |                                |                                                    |                                     |                                     |
| a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?                                                                                     | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.6.1 Setting

##### Energy in California

Energy usage is typically quantified using the British Thermal Unit (Btu) in the United States. Btu is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit and is the most commonly used unit for comparing energy sources or fuels (U.S. EIA, 2019a). Natural gas usage is expressed in therms. A therm is equal to 100,000 Btu.

Total energy production in California in 2016 was 2,431 trillion Btu. Total energy usage in California in 2016 was 199 million Btu per capita. California’s total energy consumption is second-highest in the U.S., but, in 2016, the state’s per capita energy consumption ranked 48th, due in part to its mild climate and its energy efficiency programs. Of California’s total energy usage, the breakdown by sector is (U.S. EIA, 2019b):

- **Transportation:** 39.8%
- **Residential:** 17.7%
- **Commercial:** 18.9%
- **Industrial:** 23.7%

The top five primary sources of California’s energy consumption, ranked, are (U.S. EIA, 2019b):

1. Natural gas (28%)
2. Motor gasoline (21.9%)
3. Interstate electricity (10.9%)
4. Jet fuel (8.6%)
5. Distillate fuel oil (7.2%)

##### Project Energy Use

Pacific Gas and Electric (PG&E) provides electric services in Santa Cruz County. Given the nature of the proposed Project, the sources of energy that are most relevant to the Project are electricity and natural gas for the operation of the new telecommunications tower and transportation fuel for vehicle trips associated with Project construction and operation.

The proposed Project site is located along a ridgeline that is 0.75 miles west of Chalk Mountain and is the site of one of CAL FIRE’s existing telecommunications facilities. The site consists of a 60-foot monopole and solar panels on a concrete pad, a vault building, and an electrical box. Existing infrastructure at the Project site consumes very little energy for current operations due to the use of a small solar array for electrical power.

## Regulatory Background

### *Federal*

**Energy Policy and Conservation Act (1975) and Amendments.** The U.S. Congress established minimum standards of energy efficiency for many major appliances in the federal Energy Policy and Conservation Act of 1975, and have been amended by subsequent energy legislation, including the federal Energy Policy Act of 2005. The intent of the National Energy Act of 1978 was to promote greater use of renewable energy, provide residential consumers with energy conservation audits to encourage slower growth of electricity demand, and promote fuel efficiency.

**Energy Independence and Security Act (2007).** The Energy Independence and Security Act of 2007 included an increase in auto mileage standards and addressed conservation measures and building efficiency. The Act also included a new energy grant program for use by local governments in implementing energy efficiency initiatives, as well as a variety of green building incentives and programs.

**Energy Policy Act (2005).** The Energy Policy Act of 2005 gave more responsibility to the Federal Energy Regulatory Commission (FERC), including regulating market manipulation and mergers as well as overseeing the nation's electrical infrastructure. The Renewable Fuel Standard (RFS) program also was created under the Energy Policy Act and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. The U.S. Environmental Protection Agency (EPA) is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel.

### *State*

**California Long-Term Energy Efficiency Strategic Plan.** The Long-Term Energy Efficiency Strategic Plan is California's roadmap to achieving maximum energy savings in the state between 2009 and 2020, and beyond. Energy efficiency was made the highest priority resource in meeting California's energy needs. It serves as the framework for making energy efficiency a way of life for all sectors in California, including in industry, agricultural, large and small businesses, and average households. The Plan also addresses how California will use energy efficiency to grow its economy and meet its global warming goals.

**Title 20 and Title 24, California Code of Regulations.** New buildings constructed in California must comply with the standards contained in Title 20, Public Utilities and Energy, and Title 24, Building Standards Code, of the California Code of Regulations. These efficiency standards apply to new construction of both residential and nonresidential buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in Title 24 guidelines.

**California Green Building Standards Code (CALGreen) (2009).** This code is the first statewide green building standards code in the U.S. Originally a voluntary standard, aspects of CALGreen became mandatory in the 2010 code. The 2010 version of CALGreen took effect in 2011, and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial and low-rise residential buildings, state-owned buildings, schools, and hospitals. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and nonresidential buildings. Local jurisdictions must enforce the minimum mandatory requirements and may also adopt the Green Building Standards with amendments for stricter requirement. Updates were added to CALGreen in 2012, and involve clarification of the difference between mandatory and voluntary provisions.

### **Local**

**Santa Cruz County General Plan.** The Conservation and Open Space Element of the Santa Cruz County General Plan includes objectives and policies to maximize conservation and efficient use of energy. The policies applicable to this project include (Santa Cruz County, 1994):

5.17.1 Promote Alternative Energy Sources Promote the use of energy sources which are renewable, recyclable, and less environmentally degrading than non-renewable fossil fuels.

5.17.3 Solar Access – Encourage maximum solar access orientation in siting new development and require protection of solar access in existing development.

5.17.4 Retrofit Programs Encourage and stimulate energy conservation and the use of renewable energy through retrofit programs for residential, agricultural, commercial, public facilities and industrial land uses.

### **3.6.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Energy other than fulfillment of any necessary regulatory requirements.

### **3.6.3 Environmental Impacts**

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

**LESS THAN SIGNIFICANT.** During construction, the proposed Project would consume energy through fuel energy consumed by construction vehicles and equipment and through energy bound in construction materials, such as steel and manufactured or processed materials. Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site grading, foundation excavation, and construction, and tower installation and would be temporary in nature. Construction of the proposed Project would require construction materials such as concrete and steel, which require energy to acquire, manufacture, process, and transport.

CAL FIRE has a strong financial incentive to use recycled materials or products sourced from nearby areas in order to reduce the costs of transporting the construction materials. In addition, it is reasonable to assume that the production of the construction materials would employ energy conservation practices in the interest of minimizing the costs of creating the construction materials.

After construction, the new telecommunications tower would use an improved solar array for operational energy and lighting. This would ensure no increase in energy consumption at the Project site would occur, as the proposed Project would not introduce any new or additional maintenance requirements or personnel that do not already exist under maintenance of the existing Chalk Mountain communications tower and facilities. As backup, the new tower would be powered by solar battery backup or propane generators.

Overall, any impacts would be less than significant since construction would be temporary and construction and operation activities would not use energy in an inefficient, wasteful, or unnecessary manner.

**b. *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

**NO IMPACT.** Although the proposed Project may slightly increase energy consumption at the Project site due to an increase in overall infrastructure, energy consumption during operation would be minimal due to the inclusion of a new solar array. The construction and operation of the new telecommunications tower and replacement vault would be located within an existing telecommunications facility and would not include any activities or components that would conflict with or obstruct the State or local renewable energy or energy efficiency plans; there would be no impact.

### 3.7 Geology and Soils

#### GEOLOGY AND SOILS

Would the project:

|                                                                                                                                                                                                                                                                                        | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:                                                                                                                                                         |                                |                                                    |                                     |                                     |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| ii) Strong seismic groundshaking?                                                                                                                                                                                                                                                      | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iii) Seismic-related ground failure, including liquefaction?                                                                                                                                                                                                                           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| iv) Landslides?                                                                                                                                                                                                                                                                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Result in substantial soil erosion or the loss of topsoil?                                                                                                                                                                                                                          | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?                                                     | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*                                                                                                                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?                                                                                                     | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?                                                                                                                                                                                | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

\*Geology and Soils question (d) reflects the current 2019 California Building Code (CBC), which is based on the International Building Code (2019), effective January 1, 2020. The CBC is updated every three years. Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.7.1 Setting

##### Geologic Setting

The proposed Project site is located in the Coast Ranges geomorphic province and is mapped as Miocene (Oligocene to Pliocene) marine rock consisting of sandstone, mudstone, siltstone, evaporite, and conglomerate (DGS, 2018). Local geologic maps identify Tertiary sedimentary and volcanic rocks (DGS, 2018). The results of field exploration (sample borings within the Project site) and laboratory analysis indicate the subsurface materials generally consisted of hard silt to a depth of 0.5 to 1 foot below ground surface underlain by completely weathered, extremely weak to weak siltstone to the maximum depth explored of 51.5 feet below ground surface (DGS, 2018).

##### Soils

According to the Soil Survey for Santa Cruz County the Project area consists of one soil type: “(110) Ben Lomond sandy loam, 5 to 15 percent slopes” (NCRSNCR, 1980). This soil type is part of the Ben Lomond Series which consists of deep, well-drained soils that formed in material weathered from sandstone or granitic rocks at elevations from 400 to 3,000 feet. This soil series is found on mountain slopes and ridges,

in a coastal Mediterranean climate that is warm and dry with the exception of foggy summers and cool, moist winters. The frost-free season is approximately 220 to 240 days, with soils typically used for timber production, recreation, wildlife, watershed, and in some areas home sites and orchards (NCRS, 1980). Typical vegetation includes redwood, Douglas-fir, oak tanoak, oaks, madrone, and shrubs (NCRS, 1980).

### Seismicity

The proposed Project site is not mapped within an Alquist-Priolo Earthquake Fault Zone; therefore, fault trenches were deemed not applicable (DGS, 2018). The nearest active fault displaying historic (Holocene) movement is the San Gregorio Fault zone, located approximately 0.7 miles to the west (DGS, 2018). The fault zone is mainly located offshore, west of San Francisco Bay and Monterey Bay. The long-term slip rate is estimated to range from 3.5 to 4.5 millimeters per year within the late Pleistocene (DGS, 2018).

The nearest inactive fault zone is the Zayante-Vergeles fault zone (Zayante fault), approximately 0.7 miles northeast of the project site (DGS, 2018). The fault zone is a Quaternary fault with a slip rate less than 1.5 millimeters per year (DGS, 2018).

The site is located in an area generally characterized as having high seismicity; strong ground shaking should be expected during seismic events. Using the United States Geological Survey (USGS) Seismic Design Maps website considering the site location, ASCE 7-10 provisions, and Type C soils (very dense soil and soft rock), the Peak Ground Acceleration (PGA) is 0.89 g for the maximum credible earthquake (MCE) (DGS, 2018).

### Paleontology

The Chalk Mountain site is within the Purisima Formation, an extensive Miocene formation that stretches from Point Reyes, south to below Santa Cruz. The Purisima Formation contains numerous localities containing fossil bivalves, gastropods and echinoderms. The overall project area has a high sensitivity for paleontological resources.

### Regulatory Background

#### *Federal*

**Federal Earthquake Hazards Reduction Act.** In 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes through the establishment and maintenance of an effective earthquake hazards and reduction program. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The agencies responsible for coordinating NEHRP are the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF); and the United States Geological Survey (USGS). In 1990, NEHRP was amended by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of the agency responsibilities, program goals, and objectives. The four goals of the NEHRP are: (1) develop effective practices and policies for earthquake loss-reduction and accelerate their implementation; (2) improve techniques to reduce seismic vulnerability of facilities and systems; (3) improve seismic hazards identification and risk-assessment methods and their use; and (4) improve the understanding of earthquakes and their effects.

**Clean Water Act.** The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States. The Act authorized the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters with the goal of improvements to and conservation of waters for public water supplies, propagation of fish and aquatic life, recreational purposes, and agricultural and industrial uses. The proposed Project construction would disturb a surface

area greater than one acre; therefore, SCE would be required to obtain under Clean Water Act regulations a National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity. Compliance with the NPDES would require that the applicant submit a Storm Water Pollution Prevention Plan (SWPPP).

### ***State***

**Alquist-Priolo Earthquake Fault Zoning Act.** The Alquist-Priolo Earthquake Fault Zoning Act of 1972, Public Resources Code (PRC) Sections 2621–2630 (formerly the Special Studies Zoning Act) regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. While this Act does not specifically regulate oil field components not intended for human occupancy; it does help define areas where fault rupture, and thus related damage, is most likely to occur. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be “sufficiently active” and “well defined” by detailed site-specific geologic explorations in order to determine whether building setbacks should be established. Cities and counties affected by the zones must regulate certain development “projects” within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Although this act does not apply to the project as it does not include any habitable structures, it serves as a gauge to determine if there are active faults of concern crossing or in immediate vicinity to the proposed Project.

**The California Building Code, Title 24, Part 2.** The California Building Code, Title 24, Part 2 provides building codes and standards for design and construction of structures in California. The 2019 CBC is based on the 2019 International Building Code with the addition of more extensive structural seismic provisions. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures.

**The Seismic Hazards Mapping Act (the Act) of 1990 (Public Resources Code, Chapter 7.8, Division 2, sections 2690–2699).** The Act directs the California Department of Conservation, Division of Mines and Geology [now called California Geological Survey (CGS)] to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones.

### ***Local***

**Santa Cruz County General Plan.** The Santa Cruz County General Plan includes a Conservation and Open Space Element, which addresses geology, soils, and paleontology resources of Santa Cruz County (Santa Cruz County, 1994). A review of the Conservation and Open Space Element found no policies directly relevant to the proposed Project.

## **3.7.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Geology and Soils other than fulfillment of any necessary regulatory requirements.

### 3.7.3 Environmental Impacts

*a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

*i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

**LESS THAN SIGNIFICANT.** The proposed Project is located in an area of California generally characterized as having high seismicity; however, as discussed earlier, no active or potentially active faults cross or are in close vicinity to the proposed Project. All project infrastructure replaced and constructed within the existing telecommunications facility would be designed consistent with California Building Code and all other requirements related to seismic events. Therefore, the potential impact from surface fault rupture is considered less than significant.

*ii) Strong seismic ground shaking?*

**LESS THAN SIGNIFICANT.** The project is located in an area of California generally characterized as having high seismicity; however, no significant active faults are located in the proposed Project area. Estimated peak ground accelerations at the proposed Project site is 0.89g for the maximum credible earthquake, which correspond to minor ground shaking (DGS, 2018). This level of ground shaking is not likely to result in damage to the telecommunications tower as the new tower would be built to meet essential services seismic standards. In addition, due to the common occurrence of relatively shallow, weathered material underlain by dense bedrock in the Project area, seismic risk is lessened. All Project infrastructure replaced and constructed within the existing telecommunications facility would be designed consistent with California Building Code and all other requirements related to seismic events for essential services facilities. Overall, the risk of loss, injury, or death related to strong seismic ground shaking is less than significant.

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

**NO IMPACT.** Seismic liquefaction occurs when excess pore pressures are generated in loose, saturated, generally cohesionless soil during earthquake shaking, causing the soil to experience a partial to complete loss of shear strength. Such a loss of shear strength can result in settlement and/or horizontal movement (lateral spreading) of the soil mass. CGS does not map the proposed Project site within a liquefaction hazard zone (DGS, 2018), nor is it mapped within regional liquefaction hazard zones in the General Plan (Santa Cruz County, 1994); therefore, no impact related to liquefaction would occur.

*iv) Landslides?*

**LESS THAN SIGNIFICANT.** The California Department of Conservation Geological Survey (CGS) does not map the proposed Project site within a landslide hazard zone (DGS, 2018); however, the County of Santa Cruz indicates landslide hazard areas on the southeastern slope of Chalks Mountain (Santa Cruz County, 1994). The limits of the landslide area were determined based on stereoscopic examination of aerial photographs in the 1970s and is the most complete source of data available within the County. The results of the current field exploration are not consistent with the landslide map, as the materials encountered in the field consisted of medium dense to very dense weathered siltstone (DGS, 2018). No evidence of landslide movement was observed during field reconnaissance (DGS, 2018). To reduce the risk of damage to the site facilities and to accommodate the mapped limits of the landslide, the proposed tower and vault structure foundations will be placed a minimum distance of 25 feet from the top of the slope (absent of conclusive information to confirm the limits of the potential landslide). With the inclusion of this into the proposed Project design, the potential impact due to landslide would be less than significant.

***b. Would the project result in substantial soil erosion or the loss of topsoil?***

**LESS THAN SIGNIFICANT.** Excavation for construction of proposed Project facilities would loosen soil and sediment, potentially triggering soil erosion by wind or water. Erodibility in the area is low due to the shallow bedrock. Erosion control measures would be implemented for exposed surfaces potentially subject to soil erosion. Best Management Practices to reduce erosion and transport of soil particles or turbid water into the drainage course flowing from the construction site would be employed. All conditions of existing water quality regulatory agency permits would be adhered to as well. Overall, the proposed Project would result in a less than significant impact related to soil erosion or the loss of topsoil.

***c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?***

**LESS THAN SIGNIFICANT.** Potential issues related to liquefaction and liquefaction-related phenomena and seismically induced landslides are discussed above under Item (a)(iii), and impacts related to construction triggered landslides are discussed under Item (a)(iv). The proposed Project would be built in accordance with the California Building Code for essential services facilities and the proposed tower and vault structure foundations will be placed a minimum distance of 25 feet from the top of the slope (absent of conclusive information to confirm the limits of the potential landslide). Therefore, impacts related to liquefaction and liquefaction-related phenomena, seismically induced landslides and construction triggered landslides would be less than significant (DGS, 2018).

***d. Would the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

**LESS THAN SIGNIFICANT.** Soils underlying the proposed Project primarily have a low to moderate shrink-swell potential. No evidence of expansive soil was discovered during the subsurface exploration for the site (i.e. soils with a liquid limit greater than 50 or a plasticity index greater than 25) (DGS, 2018). The low to moderate shrink-swell of the soils underlying the Project site and the anticipated construction techniques reduces the potential impact from expansive soils to less than significant.

***e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?***

**NO IMPACT.** The proposed Project would not include any wastewater disposal facilities, therefore there would be no impacts related to wastewater disposal.

***f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

**LESS THAN SIGNIFICANT.** While the overall project area has a high sensitivity for paleontological resources, a desktop review of paleontological resources was conducted online, and no identified fossil sites were noted in the proposed Project area. The Project site itself is underlain by igneous and metamorphic bedrock, which have low potential to contain fossils. Therefore, the potential to encounter an unidentified paleontological resource during tower excavation would be low. Impacts would be less than significant.

### 3.8 Greenhouse Gas Emissions

#### GREENHOUSE GAS EMISSIONS

Would the project:

|                                                                                                                                                | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?                    | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.8.1 Setting

**Physical Setting.** The global climate depends on the presence of naturally occurring greenhouse gases (GHGs) to provide what is commonly known as the “greenhouse effect” that allows heat radiated from the Earth’s surface to warm the atmosphere. The greenhouse effect is driven mainly by water vapor, aerosols, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and other constituents. Globally, the presence of GHG affects temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity.

Human activity directly contributes to emissions of six primary anthropogenic GHGs: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydro-fluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). The standard definition of anthropogenic GHGs includes these six substances under the 1997 Kyoto Protocol (UNFCCC, 1998). The most important and widely occurring anthropogenic GHG is CO<sub>2</sub>, primarily from the use of fossil fuels as a source of energy.

**Effects of GHG Emissions.** Changing temperatures, precipitation, sea levels, ocean currents, wind patterns and storm activity provide indicators and evidence of the effects of climate change. From 1950 onward, relatively comprehensive data sets of observations are available. Research by California’s Office of Environmental Health Hazard Assessment (OEHHA) documents climate change indicators by categorizing the effects as: changes in California’s climate; impacts to physical systems including oceans, lakes, rivers, and snowpack; and impacts to biological systems including humans, vegetation, and wildlife. The primary observed changes in California’s climate include increased annual average air temperatures, more-frequent extremely hot days and nights, and increasing severity of drought. Impacts to physical systems affected by warming temperatures and changing precipitation patterns show decreasing snowmelt runoff, shrinking glaciers, and rising sea levels. Impacts to terrestrial, marine, and freshwater biological systems, with resulting changes in habitat, agriculture, and food supply are occurring in conjunction with the potential to impact human well-being (OEHHA, 2018).

#### Regulatory Background

**California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)].** The California Global Warming Solutions Act of 2006 (AB 32) required that California’s GHG emissions be reduced to 1990 levels by 2020. The reduction is being accomplished through an enforceable statewide cap on global warming emissions beginning in 2012. AB 32 directs the CARB to develop regulations and a mandatory reporting system to track and monitor global warming emissions levels (AB 32, Chapter 488, Statutes of 2006). The CARB Climate Change Scoping Plan, initially approved December 2008 and most recently updated by CARB in December 2017, provides the framework for achieving California’s goals (CARB, 2017).

In passing AB 32, the California Legislature found that:

*Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.*

Other major Executive Orders, legislation, and regulations have also been adopted to continue and build upon the implementation of AB 32 to reduce GHG emissions and achieve California's climate goals.

**California Governor's Executive Orders on GHG Emissions.** In September 2018, Executive Order B-55-18 established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. The CARB was directed to develop the framework for implementing the goal of carbon neutrality. Executive Order B-30-15 (April 2015) established a California GHG reduction target of 40 percent below 1990 levels by 2030. One purpose of this interim target is to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. This executive order also specifically addresses the need for climate adaptation and directs state agencies to update the California Climate Adaptation Strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change. Senate Bill 32 (SB 32) of 2016 codified this GHG emissions target to 40 percent below the 1990 level by 2030.

**Cap-and-Trade Program (17 CCR 95801 to 96022).** The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program) was initially approved by CARB in 2011. The Cap-and-Trade Program applies to covered entities that fall within certain source categories, including petroleum refiners and suppliers of transportation fuels, and is triggered when facility emissions exceed 25,000 metric tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>e) in a year. The covered entities must hold compliance instruments sufficient to cover the actual GHG emissions, as evidenced through the CARB's Mandatory Reporting Regulation requirements. This means that transportation fuel suppliers bear the GHG compliance obligation in the Cap-and-Trade Program for the GHG emissions from motor vehicle and off-road equipment fuels used by construction workforces and crews.

**Guidelines for Implementing the California Environmental Quality Act.** The Monterey Bay Unified Air Pollution Control District (MBUAPCD) provides guidelines for determining whether a project could result in a cumulative considerable contribution of GHG emissions. In February 2016, the Board of the MBUAPCD adopted a significance threshold of 10,000 MTCO<sub>2</sub>e per year for stationary source projects and established that operation of a stationary source project would not have a significant GHG impact if the project complies with the Cap-and-Trade program requirements (MBUAPCD, 2016).

### 3.8.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Greenhouse Gas Emissions other than fulfillment of any necessary regulatory requirements.

### 3.8.3 Environmental Impacts

***a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

**LESS THAN SIGNIFICANT.** The proposed Project construction activities include mobilizing construction equipment, crews, and materials, as necessary to replace the existing telecommunications tower, vaults, and supporting equipment, establish staging and work areas, and install the new tower and vault, a solar array, a replacement emergency backup generator rated at 40 kW, and the associated propane storage tank.

These construction activities would cause GHG emissions due to fuels used by diesel and gasoline-powered construction vehicles and off-road equipment. Approximately 20 workers on any given day would use a small fleet of diesel off-road and gasoline-powered construction vehicles including light-duty vehicles for crews and heavy-duty trucks for equipment, materials, concrete, and water. The fleet of off-road equipment would include a backhoe, loader, dozer, grader, rock hammer, jackhammer, auger, crane, and lifts.

Equipment and motor vehicles would directly emit CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O due to fuel use and combustion. Motor vehicle fuel combustion emissions in terms of CO<sub>2</sub>e are approximately 95 percent CO<sub>2</sub>, and CH<sub>4</sub> and N<sub>2</sub>O emissions occur at rates of less than 1 percent of the mass of combustion CO<sub>2</sub> emissions. The construction-related GHG emissions would occur sporadically over a period expected to span approximately 2 years and would cease upon completing site restoration. These one-time project-level GHG emissions would not occur in quantities that could have a significant impact on the environment.

Upon completion of construction, operations and maintenance activities to support the new facilities would not result in a notable incremental increase in GHG emissions. No new crews would be added by the proposed Project, and operation of the proposed Project would cause no increase in GHG emissions beyond those that occur in the existing conditions for operation and maintenance of the existing Chalk Mountain communications tower and facilities. Accordingly, the proposed Project GHG emissions would not have a significant impact on the environment, and this impact would be less than significant.

***b. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?***

**LESS THAN SIGNIFICANT.** California's regulatory setting for GHG emissions (Section 5.8.1) ensures that most or all of the existing and foreseeable GHG sources associated with the proposed Project would be subject to one or more programs aimed at reducing GHG. The Climate Change Scoping Plan provides an outline of actions to reduce California's GHG emissions. The scoping plan requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs.

The proposed Project would generate limited quantities of direct GHG emissions from the construction activities. California's Cap-and-Trade regulation is the major climate program covering project related GHG emissions. Construction and O&M activities would cause GHG emissions due to the transportation fuels used by the vehicles and equipment. The end-users of motor vehicle fuels like gasoline and diesel may include construction contractors that are not otherwise designated as covered entities in the Cap-and-Trade program, and these end-users do not directly bear the Cap-and-Trade compliance obligation. However, all fuel suppliers and petroleum refiners must cover the end-user's GHG emissions. Because the project-related GHG emissions, including construction-phase emissions, would be "covered" by the fuel suppliers subject to Cap-and-Trade requirements, these emissions would not conflict with California's progress towards achieving GHG reductions. Further, as proposed, solar panels would be installed to reduce dependence on the use of the propane generator. The proposed Project would not conflict with any applicable GHG management plan, policy, or regulation. This impact would be less than significant, and no mitigation is required.

### 3.9 Hazards and Hazardous Materials

#### HAZARDS AND HAZARDOUS MATERIALS

Would the project:

|                                                                                                                                                                                                                                                                                   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?                                                                                                                                           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?                                                                                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?                                                                                                                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                                    | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?                                                                                                                                                         | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?                                                                                                                                           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.9.1 Setting

Existing and past land use activities are commonly used as indicators of sites or areas where hazardous material storage and use may have occurred or where potential environmental contamination may exist. For example, many historic and current industrial sites have soil or groundwater contaminated by hazardous substances. Other hazardous materials sources include leaking underground tanks in commercial and rural areas, contaminated surface runoff from polluted sites, and contaminated groundwater plumes. Current and former agricultural properties commonly have herbicide, pesticide, and/or fumigant soil contamination.

The CAL FIRE Chalk Mountain project site is located in the Santa Cruz Mountains on an open, bare ridge that supports existing telecommunication facilities, approximately 0.75 miles west of the actual Chalk Mountain and approximately 3 miles east of the Pacific Ocean. The proposed Project would be on State land within the Big Basin Redwood State Park and within the designated Coastal Zone in Santa Cruz County. CAL FIRE mountaintop communications facilities are remote facilities that essentially consist of a telecommunication tower and a securable radio communications building (vault) that is environmentally controlled to house sensitive radio transmission equipment. These facilities also include back-up generators that enable the sites to remain operational during power outages. Depending on site limitations, these generators are housed either within the vault, in a separate room, or in a stand-alone securable building.

The closest school, Pescadero High School, is located 6.6 miles north of the Project site. The closest airport, San Jose International Airport, is located 24 miles northeast of the Project site. Half Moon Bay Airport is 27 miles northwest of the Project site and Monterey Regional Airport is 47 miles to the southeast.

## Regulatory Background

Hazardous substances are defined by federal and State regulations that aim to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous substances are defined in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14), and also in the California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261, which provides the following definition:

*A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.*

For this analysis, soil that is excavated from a site containing hazardous materials would be considered to be a hazardous waste if it exceeded specific CCR Title 22 criteria or criteria defined in CERCLA or other relevant federal regulations. Remediation (cleanup and safe removal/disposal) of hazardous wastes found at a site is required if excavation of these materials occurs; it may also be required if certain other activities occur. Even if soils or groundwater at a contaminated site do not have the characteristics required to be defined as hazardous wastes, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking lead jurisdiction.

### **Federal**

**Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA).** The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the U.S. Environmental Protection Agency (EPA) for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (1980).** CERCLA, including the Superfund program, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

### **State**

**California Environmental Protection Agency (Cal/EPA).** The California Environmental Protection Agency (Cal/EPA) was created in 1991, which unified California’s environmental authority in a single cabinet-level agency and brought the Air Resources Board (ARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), Integrated Waste Management Board (IWMB), DTSC, Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed within the Cal/EPA “umbrella” for the protection of human health and the environment and to ensure the coordinated deployment of State resources. Their mission is to restore, protect and enhance the environment, to ensure public health, environmental quality, and economic vitality.

**California Hazardous Waste Control Law (HWCL).** The California Hazardous Waste Control Law (HWCL) is administered by Cal/EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the EPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

**Department of Toxic Substance Control (DTSC).** The Department of Toxic Substance Control (DTSC) is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

**California Occupational Safety and Health Administration (Cal/OSHA).** The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

### **Local**

**Santa Cruz County General Plan.** The Public Safety and Noise Element of the Santa Cruz County General Plan addresses natural and manmade potential safety hazards. The following policy in the Public Safety and Noise Element are applicable to the proposed Project (Santa Cruz County, 1994):

- **Policy 6.6.1 Hazardous Materials Ordinance.** Maintain the County’s Hazardous Materials ordinance, placing on users of hazardous and toxic materials the obligation to eliminate or minimize the use of such materials wherever possible, and in all cases to minimize the release, emission, or discharge of hazardous materials to the environment, and properly to handle all hazardous materials and to disclose their whereabouts. Further, maintain the County’s ordinance relating to ozone-depleting compounds. Ensure that any amendment of existing ordinance provisions is based on a finding that the amendments will provide protection to the environment and the community against toxic hazards that is equal to or stronger than the existing provisions.

### 3.9.2 Applicant Proposed Measures (APMs)

In addition to compliance with regulatory requirements, the following APMs would be implemented as part of the proposed Project.

**APM HAZ-1 Prepare and Implement a Hazardous Materials and Waste Management Plan.** Prior to approval of the final construction plans for the proposed Project, an existing CAL FIRE–approved hazardous materials and waste management plan, or if no such plan is in place, a project-specific Hazardous Materials and Waste Management Plan for the construction phase of the proposed Project shall be prepared and submitted to the State for approval prior to construction. The Plan shall be prepared to ensure compliance with all applicable federal, State, and local regulations. The Hazardous Materials and Waste Management Plan shall reduce or avoid the use of potentially hazardous materials for the purposes of worker safety; protection from soil, groundwater, and surface water contamination; and proper disposal of hazardous materials. The Plan shall include the following information related to hazardous materials and waste, as applicable:

- A list of the hazardous materials that be present on site and in the local construction yard during construction, including information regarding their storage, use, and transportation;
- Any secondary containment and countermeasures that will be required for onsite and construction yard hazardous materials, as well as the required responses for different quantities of potential spills;
- A list of spill response materials and the locations of such materials at the proposed Project site and in the local construction yard during construction. Additionally, the Plan shall designate that spill response materials be kept onsite for all activities performed near or adjacent to a stream or the river;
- Procedure for Fueling and Maintenance of Construction Vehicles and Equipment: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. The Plan shall include the following procedures:
  - Construction vehicles shall be fueled and maintained offsite at the construction yard or at local fuel stations. Construction vehicles operated near or adjacent to the stream/river channel shall be inspected and maintained daily to prevent leaks.
  - Construction equipment such as drill rigs and excavators shall be fueled offsite when feasible. When refueling offsite is not feasible for drilling equipment and other construction equipment, onsite refueling of the equipment by refueling vehicles or fuel trucks shall follow specified procedures to prevent leaks or spills. Procedures shall require refueling be located a minimum of 150 feet from a stream channel and the use of spill mats, drop cloths made of plastic, drip pans, or trays to be placed under refueling areas to ensure that fuels do not come into contact with the ground. Spill cleanup materials shall be kept readily available on the refueling vehicles.
  - Drip pans or other collection devices would be placed under equipment, such as motors, pumps, generators, and welders, during operation and at night to capture drips or spills. Equipment would be inspected and maintained daily for potential leakage or failures.
- A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials;

- A description of the waste-specific management and disposal procedures that shall be conducted for any hazardous materials that shall be used or are discovered during construction of the proposed Project; and
- A description of an existing CAL FIRE–approved worker training program, or if no such program is in place, a project specific Worker Environmental Awareness Program (WEAP) to be conducted prior to construction to train all site personnel of the Hazardous Materials and Waste Management Plan requirements prior to the commencement of work.

**APM HAZ-2 Prepare and Implement a Hazardous Materials Management Business Plan.** Prior to operations of project propane storage and generator facilities, an existing CAL FIRE–approved hazardous materials management plan, or if no such plan is in place, a project-specific Hazardous Materials Business Plan for the operation phase of the proposed Project shall be prepared and submitted to the State for approval prior. The Plan shall be prepared to ensure compliance with State and federal regulations contained within the Resource Conservation and Recovery Act policies. The Business Plan shall specify hazardous liquid and other hazardous waste handling procedures for personnel responsible for handling or hauling hazardous materials and wastes to/from the Project site.

### 3.9.3 Environmental Impacts

***a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

**LESS THAN SIGNIFICANT – CONSTRUCTION.** Only small amounts of hazardous materials, such as vehicle fuels, hydraulic fluid, and other vehicle and equipment maintenance fluids may be stored at the construction staging area and in construction vehicles during project construction. No acutely hazardous materials would be used. Minor spills or releases of hazardous materials could occur due to improper handling and/or storage practices during construction activities. Implementation of APM HAZ-1 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would reduce the potential impacts to the public or environment due to the routine transport, use, or disposal of hazardous materials to less than significant.

**LESS THAN SIGNIFICANT – OPERATION AND MAINTENANCE.** Increased volumes of propane would be stored and used during operations and maintenance (O&M) beyond what already exists at the existing Chalk Mountain communications tower and facilities. Implementation of APM HAZ-2 (Prepare and Implement a Hazardous Materials Business Plan) would reduce the potential impact to the public or environment due to increased propane storage and use during O&M to less than significant.

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

**LESS THAN SIGNIFICANT.** Accidental spills of hazardous materials could occur due to improper handling and/or storage practices during construction and O&M activities. However, as discussed above under checklist question (a), implementation of APMs HAZ-1 (Prepare and Implement a Hazardous Materials and Waste Management Plan) and HAZ-2 (Prepare and Implement a Hazardous Materials Business Plan) would reduce potential impacts from the accidental release of hazardous materials into the environment to less than significant.

***c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

**NO IMPACT.** The closest school, Pescadero High School, is located 6.6 miles north of the Project site. Therefore, there would be no impact to the school resulting from an accidental release of hazardous materials into the environment.

***d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

**NO IMPACT.** Government Code Section 65962.5 requires the California Department of Toxic Substances Control (DTSC) to compile and update a list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (HSC), and to submit this list to the Secretary for Environmental Protection. The proposed Project site (APN # 057-05-101 within Santa Cruz County) and surrounding area (up to 0.5 miles) is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (CalEPA, 2020) or within the California Department of Toxic Substances Control EnviroStor Database (DTSC, 2020). For these reasons, the project would not create a significant hazard to the public or the environment by disrupting an identified hazardous material site.

***e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

**NO IMPACT.** There are no airport land use plans within 2 miles of the proposed Project. The closest airport, San Jose International Airport, is located 24 miles northeast of the Project site. The current 60-foot telecommunications tower at the Project site does not include, nor was it recommended to include, lights for air navigation safety. Based on FAA guidelines (Advisory Circular 70/7460-1) to reduce potential hazards to air navigation, the proposed 80-foot tower does not require FAA review for possible inclusion of lighting for aviation safety. Therefore, there would be no potential safety impacts related to an airport within 2 miles of the project site or safe use of airspace during construction or operations.

***f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

**NO IMPACT.** Oversize truck trips are expected to deliver large pieces of construction equipment and communications tower materials to the site. These activities may require brief temporary roadway or lane disruptions on local roads providing access to the site. However, in the event of any road repairs on public roadways, flagmen would be present to regulate traffic flow. Emergency vehicle flow through the area, and access to any nearby residences or areas, would not be impacted. Once operational, the proposed Project is intended to facilitate emergency communications and it would have no impact on access or movement to emergency service providers.

***g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?***

**LESS THAN SIGNIFICANT.** The proposed Project area falls within a high fire hazard severity zone within the State Responsibility Area (CAL FIRE, 2007). CAL FIRE, the project proponent, has responsibility for providing fire protection services to the project area on Chalk Mountain. While the site is coastal, construction activities could increase the risk of wildland fires, especially due to the undeveloped terrain surrounding the project site. During construction, project-related activities have the potential to be an ignition source for a wildland fire. Examples of ignition sources include sparks from welding; from metal striking metal or

stone; parking vehicles over dry vegetation where hot undercarriages could ignite grass or shrubs; and improperly discarded smoking materials. As discussed in Section 3.20 (Wildfire), to reduce the wildfire risk, the State would implement standard fire prevention protocols and follow a fire prevention plan. Therefore, the proposed Project would have a less than significant potential impact of exposing people or structures to a risk of loss, injury, or death involving wildland fires during construction.

Project O&M activities would be similar to existing O&M activities at the existing telecommunications facilities. As with current O&M, CAL FIRE would comply with all current federal and State laws related to vegetation clearance, if needed, and fire prevention, including implementation of an approved Hazardous Materials Business Plan (see APM HAZ-2). The proposed Project is intended to upgrade/supplement emergency communication linkage for CAL FIRE's fire protection and emergency response command and control throughout the area. Therefore, upon completion of the Project, CAL FIRE's emergency response, including wildland fire response, would be improved in the area.

### 3.10 Hydrology and Water Quality

#### HYDROLOGY AND WATER QUALITY

| Would the project:                                                                                                                                                                                                     | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?                                                                             | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?                                  | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: |                                |                                                    |                                     |                                     |
| (i) result in substantial erosion or siltation on- or off-site;                                                                                                                                                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;                                                                                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| (iv) impede or redirect flood flows?                                                                                                                                                                                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?                                                                                                                    | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?                                                                                                | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.10.1 Setting

##### Surface Water

Surface water drainage of the Project site is within the Ano Nuevo watershed located in the northwestern portion of Santa Cruz County along the border of San Mateo County. The watershed covers an area of approximately 10 square miles. The headwaters of this watershed begin in Santa Cruz County but empty into the Bay along the San Mateo coastline. The portion of this watershed in Santa Cruz County includes the headwaters of Whitehouse Creek, Cascade Creek, Elliot Creek, Wilson Creek, Green Oaks Creek, Ano Nuevo Creek, Finney Creek, and Willows Gulch. The Project site drains to Cascade Creek, which flows west to the Pacific Ocean

##### Groundwater

There are two distinct groundwater resources in Santa Cruz County near the proposed Project site: the Santa Margarita Basin and the Mid-County Groundwater Basin (Santa Cruz County, 2019b). The Santa Margarita Basin forms a roughly triangular area between Felton, Ben Lomond, and Scotts Valley. This Basin provides drinking water for the Scotts Valley and San Lorenzo Valley Water Districts, over a dozen small water systems, and around 1100 parcels served by private wells. Additionally, the groundwater table influences the surface water in the San Lorenzo River, a primary drinking water source for the City of Santa

Cruz. The Mid-County Groundwater Basin encompasses the area East of the Santa Margarita Basin and includes Live Oak, Soquel, Aptos, and Capitola. It provides water to the Soquel Creek and Central Water districts, the City of Santa Cruz, over 20 small water systems, and over 1,900 parcels served by private wells.

## **Flooding**

Areas susceptible to flood hazard are relatively limited in Santa Cruz County. In general, the primary floodplains are where tributaries connect with the Pacific Ocean, resulting in the potential for flooding during the winter months from rain and when snow is melted by warmer rains. The proposed Project site is not located within a FEMA flood zone (Santa Cruz County, 2019c).

## **Regulatory Background**

### ***Federal***

**Clean Water Act (CWA; 33 U.S.C. Section 1251 et seq.).** The Clean Water Act (CWA; 33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is delegated to, and administered by, California's nine Regional Water Quality Control Boards (RWQCB). In addition, the State Water Resources Control Board (SWRCB) regulates the NPDES stormwater program. The proposed Project is under the jurisdiction of the Central Coast Regional Water Quality Control Board and the SWRCB.

Projects that disturb one or more acres are required to obtain NPDES coverage under the California General Permit for Discharges of Storm Water Associated with Construction Activity. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP describes Best Management Practices (BMPs) the discharger will use to protect stormwater runoff. The SWPPP must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

### ***State***

**Central Coast Regional Water Quality Control Basin Plan.** The Basin Plan covers all the drainage basin areas for Santa Cruz County. This plan describes the beneficial uses to be protected in affected waterways, water quality objectives to protect those resources, and implementation measures to make sure those objectives are achieved.

**California Streambed Alteration Agreement.** Sections 1600–1616 of the California Fish and Game Code require that any entity that proposes an activity that will substantially divert or obstruct the natural flow of any river, stream or lake, substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit material where it may pass into any river, stream, or lake, must notify the California Department of Fish and Wildlife (CDFW). If the CDFW determines the alteration may adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) will be prepared. The LSAA includes conditions necessary to protect those resources. The Agreement applies to any stream including ephemeral streams.

**California Porter Cologne Water Quality Control Act.** The Porter Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB to adopt water quality criteria to protect State waters. Each RWQCB has developed a Water Quality Control Plan (Basin Plan) specifying water quality objectives, beneficial uses, numerical standards of pollution concentrations, and implementation procedures for Waters of the State. Waters of the State is defined by the Porter Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the State.” General objectives of the Basin Plans state that all waters (of the State) shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. The water quality control plans are intended to protect designated beneficial uses of waters, avoid altering the sediment discharge rate of surface waters, and avoid introducing toxic pollutants to the water resource. The Porter Cologne Water Quality Control Act requires anyone proposing to discharge waste that could affect the quality of the waters of the State to report the waste discharge to the appropriate RWQCB.

#### **Local**

**Santa Cruz County Code Chapter 7.79 Runoff and Pollution Control.** The purposes of this chapter are to:

- (A) Protect the health, safety, and welfare of the public by protecting the surface and groundwater quality, groundwater recharge, beneficial uses, marine habitats, watershed health, and ecosystems of the receiving waters of the County, including the Monterey Bay, from discharge of pollutants and the adverse effects of hydromodification.
- (B) Comply with Federal and State laws concerning stormwater. [Ord. 5117, 2012].

### **3.10.2 Applicant Proposed Measures (APMs)**

In addition to compliance with regulatory requirements, the following APMs would be implemented as part of the proposed Project.

**APM B-3 Personnel Environmental Awareness Training** [see full text in Section 3.4, Biological Resources].

**APM HAZ-1 Prepare and Implement a Hazardous Materials and Waste Management Plan** [see full text in Section 3.9, Hazards and Hazardous Materials].

### **3.10.3 Environmental Impacts**

#### **a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

**LESS THAN SIGNIFICANT.** Required permits and approvals applicable to the proposed Project are identified in the Table 1-1 (Permits and Approvals Which May Be Required) in Section 1, Introduction. The proposed Project is within the jurisdiction of the Central Coast Regional Water Quality Control Board (RWQCB) and is subject to the management direction of the Water Quality Control Plan for the region. Compliance with NPDES, general construction permit, and other applicable regulations issued by the RWQCB and Santa Cruz County would be required. It is expected that the proposed Project would follow all applicable permits and regulations.

During construction of the proposed Project there would be a potential for spills of oil, grease, or other water contaminants associated with the use of vehicles, equipment, and materials used in construction, as well as the potential for increased erosion and sedimentation associated with soil disturbance. Any spill of a hazardous or potentially hazardous material, including oil or grease, would be immediately addressed

in accordance with all applicable RWQCB and Santa Cruz County permits and regulations. Implementation of APM B-3 (Personnel Environmental Awareness Training) and HAZ-1 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would reduce potential water contamination impacts to a less than significant level.

***b. Would the project 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.** The proposed Project does not require a permanent, long-term water source. Water would be used as needed for dust control and general construction needs temporarily during construction and would be obtained from offsite water purveyors. A water truck would deliver water to the work area during site preparation and installation of Project facilities. Upon completion, the proposed Project would not generate any demand for water and would have only a nominal increase of impervious surface area within the site. Overall, the proposed Project would not affect existing water supplies and would not decrease groundwater supplies or interfere with groundwater recharge. Therefore, impacts would be less than significant.

***c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:***

***(i) result in substantial erosion or siltation on- or off-site;***

**LESS THAN SIGNIFICANT.** The proposed Project site is an existing, previously disturbed telecommunications facility that is relatively flat, but minor grading may be required for installation of Project facilities, including tower, vault, and propane tank foundations and solar panel pilings. Any earthwork would enable water to flow in the direction of the natural drainage and would be designed to prevent ponding and erosion that could cause damage to Project facilities. The minor earthwork as part of construction activities would not substantially alter the existing drainage pattern of the site or area, and the new facilities would not impede water flow.

Erosion control measures would be implemented for exposed surfaces potentially subject to soil erosion. Best Management Practices and adherence with all applicable RWQCB and Santa Cruz County permits and regulations to reduce erosion and transport of soil particles or turbid water into the drainage course flowing from the construction site would be employed. All conditions of existing water quality regulatory agency permits would be adhered to as well. Impacts related to erosion or siltation would be less than significant.

***(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?***

**LESS THAN SIGNIFICANT.** As stated above under Items (a) and (c)(i), minor earthwork and grading may be required as part of construction activities. However, the minor grading would not result in the substantial increase in the rate or amount of surface runoff that would result in flooding on- or offsite; therefore, any impacts would be less than significant.

***(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***

**LESS THAN SIGNIFICANT.** As stated above under Items (c)(i) and (c)(ii), minor grading may be required as part of construction activities. However, the minor grading would not create or contribute runoff water, leading

to the exceedance of the capacity of existing or planned stormwater drainage systems. In addition, the minor grading would not lead to an additional source of polluted runoff. Overall, impacts would be less than significant.

***(iv) impede or redirect flood flows?***

**LESS THAN SIGNIFICANT.** Areas susceptible to flood hazard are relatively limited around the proposed Project site, which is not located within or near a flood zone. The minor earthwork as part of construction activities would not substantially alter the existing drainage pattern of the site or area and Project facilities would be designed and constructed to not impede water flow; therefore, this impact would be less than significant.

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

**NO IMPACT.** There are no lakes near the proposed Project that could produce seiche. While the Pacific Ocean is approximately 3 miles west, the Project site is located at an elevation of 1,585 feet. That elevation results in no risk of tsunami at this location. In addition, as stated above under Item (c)(iv), areas susceptible to flood hazard are relatively limited around the Project site, which is not located within or near a flood zone. Overall, there would be no impact related to site inundation.

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

**LESS THAN SIGNIFICANT.** The minor earthwork that may be required as part of the Project could result in runoff. However, compliance with NPDES, Santa Cruz County, and all applicable water quality permits and regulations would ensure overall compliance with the Central Coast Regional Water Quality Control Basin Plan. While there is a potential for spills of oil, grease, or other water contaminants associated with the use of vehicles, equipment, and materials used in construction, as well as the potential for increased erosion and sedimentation associated with soil disturbance, implementation of APM HAZ-1 (Prepare and Implement a Hazardous Materials and Waste Management Plan) would reduce potential water quality impacts that could conflict with the Basin Plan to less than significant. As stated above under Item (b), the proposed Project would not decrease groundwater supplies or interfere with groundwater recharge. The proposed Project would not conflict with or obstruct any plans or policies pertaining to groundwater management of the area.

### 3.11 Land Use and Planning

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

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.11.1 Setting

The CAL FIRE Chalk Mountain proposed Project site is located in the Santa Cruz Mountains on an open, bare ridge that supports existing telecommunication facilities, approximately 0.75 miles west of the actual Chalk Mountain and approximately 3 miles east of the Pacific Ocean. The Project site is within the Santa Cruz County North Coast planning area. The North Coast Region includes coastal agricultural areas and rural communities, such as Bonny Doon and Davenport, along with isolated industrial areas, such as the former Davenport Cement Plant. The Project site is also located on State land (APN # 057-05-101) within the Big Basin Redwood State Park and within the designated Coastal Zone in Santa Cruz County. The area surrounding the Project site on Chalk Mountain is largely undeveloped forest (burned in August 2020) with steep terrain. Chalk Mountain and the surrounding area are located in the Land Use designation O-R (Existing Parks and Recreation) according to the Santa Cruz County General Plan (Santa Cruz County, 1994) and in zoning district PR (Parks, Recreation, and Open Space). The nearest residential receptor is located approximately 0.75 miles northeast from the Project site, with the surrounding area undeveloped mountain terrain.

#### Regulatory Background

There are no federal regulations related to land use and planning applicable to the proposed Project.

##### State

**Big Basin Redwood State Park General Plan.** The Big Basin Redwoods State Park General Plan puts forth area-specific guidelines. The project area would be within or in close proximity to the Wilderness and Backcountry areas. The management guidelines/policies applicable to this project (CA Parks, 2013):

- **Aesthetics Goal:** Identify and protect positive aesthetic values to preserve the fundamental character of the park for future generations.
  - **Aesthetics Guidelines Aesthetics 1:** Preserve and enhance positive aesthetic resources and remove or screen elements that have negative aesthetic qualities to preserve the parks scenic and recreation values.
- **State Wilderness Goal:** Preserve the natural landscape and wilderness characteristics and manage for primitive visitor experiences.
  - **State Wilderness Guidelines Wilderness 1:** Preserve and protect the integrity and character of the Waddell Creek watershed through effective management of resources and visitor use. Identify and monitor environmental conditions and use patterns, and implement adaptive management actions to reduce adverse impacts to less than significant levels.

- **Backcountry Goal:** Preserve and protect the wild and remote natural landscape and provide opportunities for backcountry visitor experiences.
  - **Backcountry Guidelines Backcountry 1:** Preserve the remote natural forested mountain character of the backcountry.

### **Local**

**Santa Cruz County General Plan/Local Coastal Program.** Land use in the County is governed by the Santa Cruz County General Plan/Local Coastal Program (LCP) Land Use Plan in the Land Use Element and the Parks, Recreation, and Public Facilities Element (Santa Cruz County, 1994). LCP Implementation Plan sections that apply to the proposed Project include the following:

- **Section 13.10.510(D)(2). Height Exceptions.** Chimneys, church spires and steeples, water tanks, cooling towers, elevators, flagpoles, monuments, noncommercial radio and television antennas, fire towers, and similar structures not used for human habitation and not covering more than 10 percent of the ground area covered by the structure may be erected to a height of not more than 25 feet above the height limit allowed in any district. ... Noncommercial radio and television towers or freestanding antennas may exceed the height limits above by 25 feet with the approval of a Level IV use approval.
- **Section 13.10.660(E). Exemptions.** The following types of wireless communication facilities, devices, and activities that are exempt from the provision of SCCC 13.10.660 through 13.10.668 include the following: “wireless communication facilities and/or components of such facilities to be used solely for public safety purposes, installed and operation by authorized public safety agencies (e.g., County 911 emergency services, police, sheriff, and/or fire departments, first responder medical services, hospitals, etc.). However, “if the facility, device and/or activities requires a coastal development permit” Sections 13.10.663(A)(1) through (A)(8) shall continue to apply.
- **Section 13.10.663. General development/performance standards for wireless communication facilities.**

(A) Site Location. The following criteria shall govern appropriate locations and designs for wireless communication facilities, including dish antennas and multi-channel, multi-point distribution services (MMDS)/wireless cable antennas, and may require the applicant to select an alternative site other than the site shown on an initial permit application for a wireless facility:

- (1) Visual Character of Site. Site location and development of wireless communications facilities shall preserve the visual character, native vegetation and aesthetic values of the parcel on which such facilities are proposed, the surrounding parcels and road rights-of-way, and the surrounding land uses to the greatest extent that is technically feasible, and shall minimize visual impacts on surrounding land and land uses to the greatest extent feasible. Facilities shall be integrated to the maximum extent feasible to the existing characteristics of the site, and every effort shall be made to avoid, or minimize to the maximum extent feasible, visibility of a wireless communication facility within significant public viewsheds. Utilization of camouflaging and/or stealth techniques shall be encouraged where appropriate. Support facilities shall be integrated to the existing characteristics of the site, so as to minimize visual impact.
- (2) Co-Location. Co-location is generally encouraged in situations where it is the least visually obtrusive option, such as when increasing the height/bulk of an existing tower would result in less visual impact than constructing a new separate tower in a nearby location. However, proposed new wireless communication facilities at co-location/multi-carrier sites that would result in more than nine total individual antennas, and/or more than three above-ground equipment enclosures/shelters, located on the same parcel are considered to result in significant visual impacts and are prohibited, unless the applicant can prove that the proposed additional antennas/equipment will be camouflaged or

otherwise made inconspicuous such that additional visual impacts are not created. Existing legal co-location/multi-carrier WCF sites that exceed these limits are allowed to retain their current number of antennas and equipment shelters/enclosures.

- (3) **Ridgeline Visual Impacts.** Wireless communication facilities proposed for visually prominent ridgeline, hillside or hilltop locations shall be sited and designed to be as visually unobtrusive as possible. Consistent with General Plan/LCP Policy 8.6.6, wireless communication facilities should be sited so the top of the proposed tower/facility is below any ridgeline when viewed from public roads in the vicinity. If the tower must extend above a ridgeline the applicant must camouflage the tower by utilizing stealth techniques and hiding it among surrounding vegetation.
- (4) **Site Disturbance.** Disturbance of existing topography and on-site vegetation shall be minimized, unless such disturbance would substantially reduce the visual impacts of the facility.
- (5) **Exterior Lighting.** Any exterior lighting, except as required for FAA regulations for airport safety, shall be manually operated and used only during night maintenance checks or in emergencies. The lighting shall be constructed or located so that only the intended area is illuminated and off-site glare is fully controlled.
- (6) **Aviation Safety.** No wireless communication facility shall be installed within the safety zone or runway protection zone of any airport, airstrip or helipad within Santa Cruz County unless the airport owner/operator indicates that it will not adversely affect the operation of the airport, airstrip or helipad. In addition, no wireless communication facility shall be installed at a location where special painting or lighting will be required by the FAA regulations unless the applicant has demonstrated to the Planning Director that the proposed location is the only technically feasible location for the provision of personal wireless services as required by the FCC.
- (7) **Coastal Zone Considerations.** New wireless communication facilities in any portion of the Coastal Zone shall be consistent with applicable policies of the County Local Coastal Program (LCP) and the California Coastal Act. No portion of a wireless communication facility shall extend onto or impede access to a publicly used beach. Power and telecommunication lines servicing wireless communication facilities in the Coastal Zone shall be required to be placed underground.
- (8) **Consistency with Other County Land Use Regulations.** All proposed wireless communication facilities shall comply with the policies of the County General Plan/Local Coastal Plan and all applicable development standards for the zoning district in which the facility is to be located, particularly policies for protection of visual resources (i.e., General Plan/LCP Section 5.10). Public vistas from scenic roads, as designated in General Plan Section 5.10.10, shall be afforded the highest level of protection.

Other General Plan/LCP policies applicable to this proposed Project include:

- **5.10.2 Development Within Visual Resource Areas (LCP).** Recognize that visual resources of Santa Cruz County possess diverse characteristics and that the resources worthy of protection may include, but are not limited to, ocean views, agricultural fields, wooded forests, open meadows, and mountain hillside views. Require projects to be evaluated against the context of their unique environment and regulate structure height, setbacks and design to protect these resources consistent with the objectives and policies of this section. Require discretionary review for all development within the visual resource area of Highway One, outside of the Urban/Rural boundary, as designated on the GP/LCP Visual Resources Map and apply the design criteria of Section 13.20.130 of the County's zoning ordinance to such development.

- **5.10.3 Protection of Public Vistas (LCP).** Protect significant public vistas as described in policy 5.10.2 from all publicly used roads and vista points by minimizing disruption of landform and aesthetic character caused by grading operations, timber harvests, utility wires and poles, signs, inappropriate landscaping and structure design. Provide necessary landscaping to screen development which is unavoidably sited within these vistas.
- **5.10.10 Designation of Scenic Roads (LCP).** The following roads and highways are valued for their vistas. The public vistas from these roads shall be afforded the highest level of protection.
  - State Highway Route 1 – from San Mateo County to Monterey County

### 3.11.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Land Use.

### 3.11.3 Environmental Impacts

#### *a. Would the project physically divide an established community?*

**NO IMPACT.** All construction disturbance areas would be within the existing CAL FIRE Chalk Mountain communication site (State land). Direct site access would occur via existing roads where CAL FIRE has leased access and maintenance agreements in place and there would be no road closures in public roads. The proposed Project involves upgrades to an existing communications facility, including the construction of a replacement telecommunications tower, vault, propane tank, and solar panels. These proposed facilities would not divide an established community. In addition, the objective of the proposed Project is to improve communication abilities in the area by upgrading/supplementing CAL FIRE’s telecommunications infrastructure with a new telecommunications tower to support the State’s PSMN and continue to provide an essential emergency communications linkage for CAL FIRE’s fire protection and emergency response command and control throughout the area. Overall, no aspect of the proposed Project would physically divide an established community.

#### *b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect*

**POTENTIAL IMPACT.** The existing CAL FIRE telecommunications facility is located along a ridgeline approximately 0.75 miles west of Chalk Mountain and the surrounding area is largely undeveloped with steep terrain. The proposed Project involves upgrades at the existing facility, including the replacement of an existing 60-foot pole, which was replaced with a 35-foot temporary repeater after the pole was burned in the 2020 fire, with a new 80-foot tower. The new tower could be visible from Highway 1, an LCP-designated scenic road, and the proposed Project maybe inconsistent with several General Plan/LCP policies, including exceedance of maximum allowable height, as well as other LCP ridgeline and screening requirements that may apply. Further, the existing CAL FIRE facility is located within Bag Basin Redwoods State Park and the new tower could be visible from locations within the park which could conflict with Park General Plan aesthetic, wilderness, and backcountry goals and guidelines. The proposed Project therefore would potentially conflict with applicable land use plans, policy, or regulation.

### 3.12 Mineral Resources

| MINERAL RESOURCES  |                                                                                                                                                                     | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| Would the project: |                                                                                                                                                                     |                                |                                                    |                                     |                                     |
| a.                 | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?                                 | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b.                 | Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.12.1 Setting

There are no mines located within or directly adjacent to the proposed Project site, while there are several quarries located within the general area of Santa Cruz County (USGS, 2019). Mineral resources in the State have been mapped using the California Mineral Land Classification System, which include the following four MRZs:

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence;
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence;
- **MRZ-3:** Areas containing mineral deposits, the significance of which cannot be evaluated; and
- **MRZ-4:** Areas where available information is inadequate for assignment to any other zone.

The mineral land classification map from the California Department of Conservation identifies areas within Santa Cruz County that have been mapped as having mineral resources. The boundary of the mapping generally stretches along the coast from Rio Del Mar to Four-mile Beach and inland to the outskirts of Wildwood. Most of the area mapped of the County falls in the category of MRZ-4, including the Project site, where information is inadequate for assignment (DOC, 2019).

#### Regulatory Background

There are no federal or local regulations associated with mineral resources that are relevant to the proposed Project.

##### State

**California Surface Mining and Reclamation Act of 1975 (SMARA).** SMARA requires that the State Geologist classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of the land. The California Department of Conservation’s Office of Mine Reclamation (OMR) and the State Mining and Geology Board (SMGB) are jointly charged with administration of the Act’s requirements. The OMR provides technical assistance to lead agencies and operators, maintains a statewide database of mine locations and operational information, and is responsible for matters involving SMARA compliance. The SMGB promulgates regulations to clarify and interpret SMARA requirements in addition to serving as a policy and appeals board. The SMGB has the authority to further regulate the authority of the local agencies if it finds that the agencies are not in compliance with the provisions of SMARA.

### *Local*

**Santa Cruz County General Plan.** The Conservation and Open Space Element of the Santa Cruz County General Plan includes objectives and policies to protect mineral resources. Due to the Project site not containing mineral resources or mineral extraction uses, none of the objectives and policies are applicable to this project (Santa Cruz County, 1994).

### **3.12.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Mineral Resources and no regulatory requirements apply.

### **3.12.3 Environmental Impacts**

***a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?***

**NO IMPACT.** As discussed earlier, the proposed Project site and surrounding vicinity are located within a classified MRZ-4, where information is inadequate for assignment. As there are no active or past mines within the Project site and the Project site is an existing telecommunications facility, the minor grading and excavation for the new tower, vault and propane tank foundations and solar panel pilings would not result in any significant loss to mineral resources that would be of value to the region and residents of California. Therefore, the Project would have no impact on availability of a known mineral resource.

***b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?***

**NO IMPACT.** As stated above, there are no active or past mines within the proposed Project site. In addition, the surrounding vicinity is located within a classified MRZ-4, where information is inadequate for assignment and there are no known mines within proximity of the Project site. Therefore, the Project would have no impact on any locally important mineral resource recovery sites.

### 3.13 Noise

| NOISE                        |                                                                                                                                                                                                                                                                                                        | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| Would the project result in: |                                                                                                                                                                                                                                                                                                        |                                |                                                    |                                     |                                     |
| a.                           | Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?                                                         | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b.                           | Generation of excessive groundborne vibration or groundborne noise levels?                                                                                                                                                                                                                             | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c.                           | For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.13.1 Setting

##### Existing Conditions

**Community Noise.** To describe environmental noise and to assess project impacts on areas that are sensitive to community noise, a measurement scale that simulates human perception is used. The A-weighted scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. Decibels are logarithmic units that can be used to conveniently compare wide ranges of sound intensities.

Community noise levels can be highly variable from day to day as well as between day and night. For simplicity, sound levels are usually best represented by an equivalent level over a given time period (Leq) or by an average level occurring over a 24-hour day-night period (Ldn). The Leq, or equivalent sound level, is a single value (in dBA) for any desired duration, which includes all of the time-varying sound energy in the measurement period, usually one hour. The L50, is the median noise level that is exceeded fifty percent of the time during any measuring interval. The Ldn, or day-night average sound level, is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to nighttime sounds occurring between 10:00 p.m. and 7:00 a.m. Community Noise Equivalent Level (CNEL) is another metric that is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. To easily estimate the day-night level caused by any noise source emitting steadily and continuously over 24-hours, the Ldn is 6.4 dBA higher than the source's Leq. For example, if the expected continuous noise level from equipment is 50.0 dBA Leq for every hour, the day-night noise level would be 56.4 dBA Ldn.

Community noise levels are usually closely related to the intensity of human activity. Noise levels are generally considered low when below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the Ldn noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, the Ldn is more likely to be around 50 or 60 dBA. Levels around 75 dBA are more common in busy urban areas, and levels up to 85 dBA occur near major freeways and airports. Although people

often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse to public health.

Surrounding land uses dictate what noise levels would be considered acceptable or unacceptable. Lower levels are expected in rural or suburban areas than what would be expected for commercial or industrial zones. Nighttime ambient levels in urban environments are about seven decibels lower than the corresponding daytime levels. In rural areas away from roads and other human activity, the day-to-night difference can be considerably less. Areas with full-time human occupation and residency are often considered incompatible with substantial nighttime noise because of the likelihood of disrupting sleep. Noise levels above 45 dBA at night can result in the onset of sleep interference. At 70 dBA, sleep interference effects become considerable (U.S. EPA, 1974).

**Noise Environment in the Project Area.** The proposed Project area is within a natural and rural area. Noise levels at the Project site are rarely influenced by manmade noise sources because the site is isolated and inaccessible by public roads.

**Noise Sensitive Areas.** The Santa Cruz County General Plan, Noise Element, describes noise sensitive land uses as including residences, hospitals, nursing homes, schools and parks (Santa Cruz County, 1994). The Chalk Mountain project site is on State land within the Big Basin Redwood State Park and within an area zoned by the County as PR (Parks, Recreation and Open Space). Additional noise sensitive receptors near the Project site include isolated residences along the existing private roads that provide access to the site.

### Regulatory Background

Regulating environmental noise is generally the responsibility of local governments. The U.S. EPA once published guidelines on recommended maximum noise levels to protect public health and welfare (U.S. EPA, 1974), and the State of California maintains recommendations for local jurisdictions in the General Plan Guidelines published by the Governor's Office of Planning and Research (OPR, 2017). The following summarizes the local requirements.

**Santa Cruz County General Plan.** The County General Plan includes a Noise Element (1994) that sets forth the overall goal: "to protect the public and sensitive wildlife habitat areas from harmful noise sources such as industrial facilities, automobiles, airplanes, motorcycles, construction noise, surface mining operations, chainsaws, off-road vehicles, loud music, and other noise sources." According to General Plan Policy 6.9.7 (Construction Noise), it is County policy to: "Require mitigation of construction noise as a condition of future project approvals."

**Santa Cruz County Code.** The County Code, Chapter 8.30 (Noise), contains a noise ordinance to ensure that offensive noise is regulated and controlled. The ordinance allows consideration of numerous factors when determining whether a violation would occur, including the loudness at the property line, the time of day or night, and the necessity of the noise [Section 8.30.010, Paragraph C]. For example, permitted construction activities may be deemed necessary. However, a noise source may be designated as offensive if daytime noise (8:00 a.m. to 10:00 p.m.) exceeds 75 dB at the property line or if nighttime noise (10:00 p.m. to 8:00 a.m.) exceeds 60 dB at the property line.

### 3.13.2 Applicant Proposed Measures (APMs)

In addition to compliance with regulatory requirements, the following APM would be implemented as part of the proposed Project.

**APM N-1 Reduce Construction Noise.** To avoid creating a substantial temporary noise increase for receptors within the Big Basin Redwood State Park and along private roads that provide access to the site, construction contractors shall:

- Limit construction activities and construction traffic to daytime hours between 8:00 a.m. to 6:00 p.m.
- Heavy equipment operation and use of impact tools, such as a hydraulic rock hammer or jackhammer, shall be restricted to weekdays (Monday through Friday).
- Haul truck engines and other engines powering fixed or mobile construction equipment shall be equipped with adequate mufflers.
- Haul trucks shall be operated in accordance with posted speed limits.
- Truck engine exhaust brake use shall be limited to emergencies.

### 3.13.3 Environmental Impacts

***a. Would the project 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?***

**DURING CONSTRUCTION, LESS THAN SIGNIFICANT.** The proposed Project would result in a temporary increase in noise levels in the vicinity of the proposed construction activities, which include mobilizing construction equipment, crews, and materials, as necessary to replace the existing telecommunications tower, vaults, and supporting equipment, establish staging and work areas, and install the new towers and vaults, a solar array, a replacement emergency backup generator, and the associated propane storage tank.

The activities likely to generate elevated noise levels in the vicinity of the Project site include the mechanical crushing of foundations and footings during removal of the existing tower and vaults. Additionally, use of impact tools like a hydraulic rock hammer or jackhammer attachment on larger excavation equipment, and rock drilling may be required due to hard bedrock encountered at the Project site.

The Project site is on State land within the Big Basin Redwood State Park and within an area zoned by the County for parks, recreation and open space. Construction noise would affect the locations closest to the staging and work areas and along the private road that would be used by haul trucks and other construction traffic to access the site. The surrounding land uses would experience a temporary increase in noise above the conditions that exist without the Project. However, the intermittent and variable nature of construction noise limits the potential for adverse effects such as annoyance to be experienced for any single location, and sleep interference would not be a concern because activities would be limited to daylight hours. Construction would primarily occur Monday through Saturday (6 days a week) between 7:00 a.m. and 6:00 p.m., in accordance with all applicable local noise and traffic ordinances. The duration of this temporary noise increase would be limited to sporadic periods of work over a period expected to span approximately 2 years.

Intermittent and continuous types of construction noises would have the potential to lead to a substantial increase. The characteristics of the noise would depend on the activity. For example, continuous noise would emanate from equipment used steadily during a workday, such as when a crane is positioning a structure or when a compressor is needed. The maximum intermittent noise levels from a construction work spread would typically range from 85 to 88 dBA when measured at 50 feet from the multiple pieces of equipment. Higher instantaneous peak noise levels of 90 dBA could be expected near the use of a rock hammer or jackhammer (FHWA, 2006). The equivalent continuous noise levels near active work could

range up to about 84 dBA. Because sound fades over distance, these levels would diminish as the noise spreads away from the Project site, and off-site noise could be reduced further by intervening topography or structures. At 200 feet from a work spread, the equivalent continuous daytime noise levels would attenuate to about 72 dBA.

Construction noise is generally limited by the noise ordinance in the Santa Cruz County Code, Chapter 8.30 (Noise). However, the ordinance does not specifically limit the allowed hours of construction activities that are likely to increase noise levels for nearby noise-sensitive receptors within the Big Basin Redwood State Park and along the private road that provide access to the site. Because the noise from construction vehicles, equipment, and traffic noise could range up to about 84 dBA near active work areas, project construction would exceed the ordinance's daytime threshold 75 dB near the site. Given the surrounding noise-sensitive nature of the parklands and open space, the proposal to conduct work 6 days a week, starting at 7:00 a.m. daily, could create noise at levels that may be designated as disruptive to the park or offensive. With implementation of APM N-1 which limit the hours of construction activities and traffic and limit the noisiest activities to weekdays, this impact would be reduced to less than significant.

**DURING OPERATION, LESS THAN SIGNIFICANT.** Operational noise would be generated by the limited activity necessary for occasional maintenance and repair at the Project site. In addition, intermittent operational noise would occur during the use of the generators; however, these generators would be housed in the new replacement vault. Limited vehicles would occasionally travel on the private access road to the site, but the number of vehicles is not expected to exceed current levels. Therefore, operation of the project would not result in a permanent substantial increase in noise levels, and this impact would be less than significant.

***b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels generation of excessive groundborne vibration or groundborne noise levels?***

**LESS THAN SIGNIFICANT.** Groundborne vibration levels from construction equipment and activities might be perceptible in the immediate vicinity of the staging or work areas. The activities that would be most likely to cause groundborne vibration would be use of the rock hammer or jackhammer for site preparation and tower installation, and the passing of heavy trucks on uneven surfaces. Blasting would not be required for rock anchors. The impact from construction-related groundborne vibration would be short-term and confined to only the immediate area around activities (within about 25 feet). As work sites would be more than 25 feet from residences, no homes would be exposed to excessive vibration, and this impact would be less than significant.

***c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

**NO IMPACT.** The proposed Project would be approximately 5 miles north of the nearest private airstrip or airport, which is the Las Trancas Airport unpaved airstrip servicing the Big Creek Lumber Company, about 6 miles northwest of Davenport. Because the Project would require no permanent staffing, the Project would not expose people to noise from the airport. Similarly, no excessive noise would result from Project operations that could impact noise levels experienced by people presently residing or working near the airport. As such, people would not be exposed to excessive aircraft noise, and there would be no impact.

### 3.14 Population and Housing

#### POPULATION AND HOUSING

| Would the project:                                                                                                                                                                                                  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?                                                                                     | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.14.1 Setting

The population of Santa Cruz County, including its four cities (Capitola, Santa Cruz, Scotts Valley, and Watsonville) grew over 11 percent between 2000 and 2010 (Santa Cruz County, 2015). The number of housing units in the County increased by 3.5 percent between 2000 and 2010 with a total number of housing units countywide reaching 94,355 and 50,118 housing units in unincorporated areas. The CAL FIRE Chalk Mountain Project site would be located in the Santa Cruz Mountains on an open, bare ridge that supports existing telecommunication facilities. The area is in the north western portion of the County within Census Tract 1202 (which spans approximately 110 square miles) and contains a population of 4,407 persons and 1,861 housing units (U.S. Census, 2019).

#### Regulatory Background

There are no federal or State regulations, plans, and standards for population and housing that apply to the proposed Project.

##### Local

**Santa Cruz County General Plan.** The Santa Cruz County General Plan includes a Housing Element, which establishes specific goals and policies relative to the provision of housing and is updated every eight years. There are no goals or policies in the Housing Element that apply to the proposed Project (Santa Cruz County, 2015).

#### 3.14.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Population and Housing and no regulatory requirements apply.

#### 3.14.3 Environmental Impacts

*a. Would the project 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)?*

**NO IMPACT.** There would be no direct population growth induced by the proposed Project, as it would not provide new housing and would not introduce any new permanent personnel at the existing Chalk Mountain communications tower and facilities. O&M activities for the new tower would be performed by exist-

ing CAL FIRE personnel and would remain similar to that occurring under existing conditions. The approximately 20 project construction personnel are expected to be mostly, if not completely, derived from the local labor pool. Construction needs are not anticipated to result in workers relocating to the area. The proposed Project would, therefore, generate neither a permanent increase in population levels nor a decrease in available housing. No impacts would occur.

***b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

**NO IMPACT.** The proposed Project site does not contain any housing or habitable structures and construction and operation would not displace any housing or persons. No impacts would occur.

### 3.15 Public Services

#### PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

|                             | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|-----------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| a. Fire protection?         | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Police protection?       | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Schools?                 | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Parks?                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Other public facilities? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.15.1 Setting

##### Fire Protection

Fire protection responsibilities in Santa Cruz County are distributed among 11 local fire districts, two City fire departments, and CAL FIRE (Santa Cruz County, 1994a). The proposed Project area falls within a high fire hazard severity zone within the State Responsibility Area (CAL FIRE, 2007). CAL FIRE, the proposed Project proponent and operator of the existing Chalk Mountain telecommunications facility, has responsibility for providing fire protection services to the Project area.

##### Police Protection

The Santa Cruz County Sheriff’s Department is responsible for patrolling all of the unincorporated areas of Santa Cruz County (Santa Cruz County, 1994a). Deputies assigned to the Patrol Division are the first to respond to any emergency in the County. Patrol Deputies are trained to handle and enforce any criminal, civil, or traffic related violation. The sheriff’s main office is located at 5200 Soquel Avenue, Santa Cruz, CA 95062 (Santa Cruz County Sheriff’s Office, 2019), about 32 miles to the south by car from the proposed site on Chalk Mountain.

##### Schools

The proposed Project area is served by Pacific Elementary School District (PESD, 2020). The school district serves one school, Pacific Elementary, which is about 17 miles south of the Project site.

##### Parks

The Santa Cruz County parks system includes four city park districts, four independent park and recreation districts, the County park district, State Parks, and other recreational facilities and open space areas provided by other agencies such as school districts and California Department of Fish and Wildlife. The proposed Project site is within the Big Basin Redwoods State Park. This park consists of more than 18,000 acres in the Santa Cruz Mountains and has more than 80 miles of trails used for hiking, biking, and horse-back riding. The trails link the park to other recreational areas including Castle Rock State Park, Waddell

Creek State Wilderness Area, Theodore J. Hoover Natural Preserve, and the eastern reaches of the Santa Cruz range (CDPR, 2018).

### Hospitals

The hospital nearest the proposed Project area is Dignity Health Dominican Hospital located at 1555 Soquel Dr, Santa Cruz, CA 95065 or Santa Cruz Center Sutter Urgent Care at 2025 Soquel Ave, Santa Cruz, CA 95062. These medical facilities are approximately 30 miles by car south of Chalk Mountain. Dominican Hospital is open 24 hours with services including Acute Rehabilitation Unit, Birth Center, Cancer Care, Cardiac Care, Emergency Services, Health & Wellness, Home Health, Imaging/Radiology, Infusion Center, Laboratory Services, Neurosurgery, Orthopedics, Pharmacy, Rehabilitation & Therapy Services, Stroke Care, Surgical Services, and Women's Health (Dignity Health, 2018). The Sutter Urgent Care center is more limited and does not include emergency services (Sutter Health, 2018).

### Regulatory Background

There are no federal regulations associated with public services that are relevant to the proposed Project.

#### *State*

**2010 Strategic Fire Plan for California.** The 2010 Strategic Fire Plan for California was developed in coordination with the State Board of Forestry and Fire Protection and CAL FIRE to reduce and prevent the impacts of fire in California. Goal 6 of the Plan sets objectives to determine the level of suppression resources (staffing and equipment) needed to protect private and public state resources. Specific objectives include, but are not limited to, maintaining an initial attack policy which prioritizes life, property, and natural resources; determining suppression resources allocation criteria; analyzing appropriate staffing levels and equipment needs in relation to the current and future conditions; increasing the number of CAL FIRE crews for fighting wildfires and other emergency response activities; maintaining cooperative agreements with local, state, and federal partners; and implementing new technologies to improve firefighter safety, where available (State Board of Forestry and Fire Protection). The standards outlined are applicable to the fire protection agency serving the Chalk Mountain area in Santa Cruz County.

#### *Local*

**Santa Cruz County General Plan.** The Public Safety and Noise Element of the Santa Cruz County General Plan addresses natural and manmade potential safety hazards (Santa Cruz County, 1994b). The following policies are relevant to the proposed Project:

- **Policy 6.5.3** Conditions for Project Approval. Condition approval of all new structures and additions larger than 500 square feet, and to single family dwellings on existing parcels of record to meet the following fire protection standards:
  - (a) Address numbers shall be posted on the property so as to be clearly visible from the access road. Where visibility cannot be provided, a post or sign bearing the numbers shall be set adjacent to the driveway or access road to the property and shall have a contrasting background. Numbers shall be posted when construction begins.
  - (b) Provide adequate water availability. This may be provided from an approved water system within 500 feet of a structure, or by an individual water storage facility (water tank, swimming pool, etc.) on the property itself. The fire department shall determine the adequacy and location of individual water storage to be provided. Built-in fire protection features (i.e., sprinkler systems) may allow for some exemptions of other fire protection standards when incorporated into the project.

- (c) Maintain around all structures a clearance of not less than 30 feet or to the property line (whichever is a shorter distance) of all flammable vegetation or other combustible materials; or for a greater distance as may be prescribed by the fire department.
  - (d) Provide and maintain one-half inch wire mesh screens on all chimneys.
  - (e) Automatic smoke detection devices shall be installed and maintained in accordance with the California Building Code and local Fire Department regulations. Sprinkler and fire alarm systems, when installed, shall meet the requirements of the local Fire Department.
  - (f) Provide adequate disposal of refuse. All development outside refuse collection boundaries shall be required to include a suitable plan for the disposal of flammable refuse. Refuse disposal shall be in accordance with state, County or local plans or ordinances. Where practical, refuse disposal should be by methods other than open burning.
  - (g) Require fire retardant roofs on all projects, as specified in the County Fire Code and the Uniform Fire Code. Exterior walls constructed of fire-resistant materials are recommended, but are not necessarily required.
- **Policy 6.5.7** Certification of Adequate Fire Protection Prior to Permit Approval. Require all land divisions, multi-unit residential complexes, commercial and industrial complexes, public facilities and critical utilities to obtain certification from the appropriate fire protection agency that adequate fire protection is available, prior to permit approval.
  - **Policy 6.5.8** Public Facilities Within Critical Fire Hazard Areas. Discourage location of public facilities and critical utilities in Critical Fire Hazard Areas. When unavoidable, special precautions shall be taken to ensure the safety and uninterrupted operation of these facilities.
  - **Policy 6.5.9** Consistency with Adopted Codes Required for New Development. Require all new development to be consistent with the Uniform Fire Code, California Building Code, and other adopted County and local fire agency ordinance.
  - **Policy 7.1.1** Existing Park, Recreation and Open Space Designation (O-R). Designate on the General Plan and Local Coastal Program Land Uses and Facilities Maps those areas existing as, or suitable for, Parks, Recreation and Open Space uses.
  - **Policy 7.1.3** Parks, Recreation and Open Space Uses. Allow low intensity uses which are compatible with the scenic values and natural setting of the county for open space lands which are not developable; and allow commercial recreation, County, State and Federal parks, preserves, and biotic research stations, local parks and passive open space uses for park lands which are developable.
  - **Policy 7.16.1** Reviewing New Development for Fire Protection. Require review of all new developments, including building permits on existing parcels of record, by the County Fire Marshal or local fire agency, and require adequate access, water supply and location with respect to fire stations and Critical Fire Hazard Areas in order to ensure adequate fire protection.
  - **Policy 7.16.2** Development to be Consistent with Fire Hazards Policies. Allow development approvals only if adequate water supply, access, and response time for fire protection can be made available in accordance with the Fire Hazards policies found in section 6.5.
  - **Policy 7.26.6** Maintenance and Repair of Utility Facilities in the Coastal Zone. Allow utility repair or maintenance activities that do not result in an addition, or enlargement or expansion of, the utility facility. Permits may be required where methods of repair and maintenance involve a risk of substantial adverse environmental impact, and where repair activities take place in wetland areas.

### 3.15.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Public Services other than fulfillment of any necessary regulatory requirements.

### 3.15.3 Environmental Impacts

***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

#### ***a) Fire Protection?***

**LESS THAN SIGNIFICANT.** While the proposed Project site is located within a high fire hazard severity zone as designated by CAL FIRE, it has been previously developed with an existing CAL FIRE telecommunication facility. The site and vicinity were burned in the 2020 fire, reducing potential fuel for the foreseeable future. Construction activities would temporarily result in an increased risk of fire ignition; however, all work would be conducted within the existing site, which has been cleared of low-lying vegetation fuels. Furthermore, all construction activities would occur under Best Management Practices for fire prevention, with all construction workers trained for fire prevention and suppression techniques/protocols. The temporary increase in fire risk during construction of the proposed Project would not create the need for new or physically altered fire protection facilities. In addition, operation and maintenance (O&M) of the improved telecommunication facility would not affect the ability of fire personnel to respond to fires but rather enhance CAL FIRE communications regarding fire response and abatement throughout the region. The proposed Project would not change existing emergency response times to the project site or surrounding region. Therefore, the construction and operation of the proposed Project would not result in an increased fire risk and impacts on local or regional fire protection would be less than significant.

#### ***b) Police Protection?***

**LESS THAN SIGNIFICANT.** The presence of workers and equipment associated with construction and maintenance activities may attract vandals or other security risks that would increase demand on law enforcement services. However, the likelihood of requiring such a response is unknown and is not expected to be significant as construction activities associated with the proposed Project would be temporary and the project site is remote. Once constructed, the Project would not require law enforcement services beyond routine patrols and response at the level currently provided. As with fire protection services discussed in Item (a) above, the improved telecommunication facilities could also improve Sheriff Department communications throughout the region. Any potential impacts to police protection services would result in a less than significant impact.

#### ***c) Schools?***

**LESS THAN SIGNIFICANT.** The proposed Project would not be expected to result in an increase in population within the area. Construction is expected to take approximately 2 years and would not require the permanent relocation of workers to the proposed Project area since all construction personnel (approximately 20 workers) would most likely be sourced from existing local labor force. Should the Project require temporary in-migration that would increase the local population during construction, it would not warrant the need for new or expanded school facilities within the Project area. O&M activities for the new tower would be performed by existing CAL FIRE personnel and would remain similar to that occurring under

existing conditions. O&M would not introduce any new personnel at the existing Chalk Mountain communications tower and facilities; therefore, no additional staff would be required after project construction work is completed. The proposed Project would result in a less than significant impact related to requiring expanded schools.

**d) Parks?**

**LESS THAN SIGNIFICANT.** The required construction workforce for the proposed Project would likely be hired from the available regional workforce. Should the project require temporary in-migration that would increase the local population during construction, it would not warrant the need for new or expanded parks and recreational facilities within the Project area. Although some workers may use recreational areas in the immediate project vicinity during project construction, increased use would be minimal and/or temporary and would not contribute substantially to the physical deterioration of existing facilities. Less than significant impacts would occur.

**e) Other Public Facilities?**

**LESS THAN SIGNIFICANT.** Construction and maintenance activities would not generate a permanent increase in population that would impact public facilities, such as medical, post office, and library services. Consequently, it is not anticipated that the proposed Project would increase population in a manner that would substantially affect public facilities. Project construction has the potential to temporarily increase the number of people in communities in the Project vicinity. However, public facilities, such as local area emergency medical facilities, are expected to adequately handle a potential small, temporary increase in the local population. Therefore, potential impacts on other public facilities would be less than significant.

### 3.16 Recreation

#### RECREATION

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

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.16.1 Setting

The Santa Cruz Mountains region includes many recreation and open space providers. In addition to public open space, the region contains small towns, rural housing, small businesses, timber companies, and private recreation developments. The State owns and maintains seven parks and seven beaches (CDPR, 2018). The area is most known for its coastal redwoods and is a popular area for a wide range of recreational activities such as hiking, camping, biking, birdwatching, and much more.

The proposed Project area is within the Big Basin Redwoods State Park, which consists of more than 18,000 acres in the Santa Cruz Mountains and includes the West Waddell Creek State Wilderness area, which is approximately 5,900 acres (CDPR, 2013). The park has more than 80 miles of trails, including trails that link Big Basin to Castle Rock State Park and the eastern reaches of the Santa Cruz range. The park has a number of waterfalls and a variety of habitats (from lush canyon bottoms to sparse chaparral-covered slopes) and wildlife (CDPR, 2013). The Big Basin Redwoods State Park averaged an annual visitor attendance of 814,516 between 2000 and 2010. The proposed Project site and surrounding area is within Big Basin Redwoods State Park were burned by the CZU Lightning Complex Fires in August to September 2020. As a result of fire damage, Big Basin Redwoods State Park is closed until further notice.

#### Regulatory Background

There are no federal regulations associated with recreation that are relevant to the proposed Project.

##### State

**Big Basin Redwoods State Park General Plan.** The Big Basin Redwoods State Park General Plan puts forth area-specific guidelines. The project area would be within or in close proximity to the Wilderness and Backcountry areas. The management guidelines/policies applicable to this project:

- **State Wilderness Goal:** Preserve the natural landscape and wilderness characteristics and manage for primitive visitor experiences.
  - **State Wilderness Guidelines Wilderness 1:** Preserve and protect the integrity and character of the Waddell Creek watershed through effective management of resources and visitor use. Identify and monitor environmental conditions and use patterns, and implement adaptive management actions to reduce adverse impacts to less than significant levels.
- **Backcountry Goal:** Preserve and protect the wild and remote natural landscape and provide opportunities for backcountry visitor experiences.
  - **Backcountry Guidelines Backcountry 1:** Preserve the remote natural forested mountain character of the backcountry.

### *Local*

**Santa Cruz County General Plan.** The Parks, Recreation, and Public Facilities Element of the Santa Cruz County General Plan/Local Coastal Program (LCP) includes objectives and policies to support park program development. As discussed in Land Use and Planning (Section 3.11), the project area is within the Santa Cruz County North Coast planning area and the following General Plan policies are relevant (County of Santa Cruz, 1994):

- **Policy 7.1.3** Parks, Recreation and Open Space Uses. Allow low intensity uses which are compatible with the scenic values and natural setting of the county for open space lands which are not developable; and allow commercial recreation, County, State and Federal parks, preserves, and biotic research stations, local parks and passive open space uses for park lands which are developable.
- **Policy 7.5.3** Uses Within Regional Parks. Provide facilities which include either resource-oriented improvements such as trails, interpretive centers, streamside picnic areas, swimming facilities, and boat launching areas; or, in appropriate areas, high intensity facilities such as equestrian centers, sports fields, game courts, restrooms and camping units. Where appropriate, provide neighborhood and community recreation facilities to serve the local residents.

### **3.16.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Recreation.

### **3.16.3 Environmental Impacts**

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

**LESS THAN SIGNIFICANT.** Construction and operation of the new Cal FIRE communications facilities would not result in an increase in population within the area. Construction is expected to span approximately 2 years and would not require the permanent relocation of workers to the proposed Project area. All construction personnel (approximately 20 workers) would most likely be sourced from the existing local labor force. Should the Project require temporary in-migration that would increase the local population during construction, it would not warrant the need for new or expanded recreational facilities within the region. Although some workers may use recreational areas during project construction, increased use would be minimal and/or temporary and would not contribute substantially to the physical deterioration of existing facilities. Consequently, the proposed Project would not increase any long-term demands on existing parks or recreational facilities in the region, and no new or expanded park facilities would be required because of the proposed Project. Less than significant impacts would occur.

***b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?***

**NO IMPACT.** The proposed Project does not include recreational facilities, nor does it require the construction of new or expanded parks or recreational facilities that could create an adverse physical effect on the environment. There would be no impact.

### 3.17 Transportation and Traffic

#### TRANSPORTATION AND TRAFFIC

Would the project:

|                                                                                                                                                                  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?                                                                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Result in inadequate emergency access?                                                                                                                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.17.1 Setting

The proposed Project would use regional and local roadways, primarily State Route 1 (also known as Highway 1) and Chalks Road (unpaved access road) for accessing the proposed Project work area on Chalk Mountain during construction. Direct site access would occur via existing roads where CAL FIRE has leased access and maintenance agreements in place. Baseline conditions of Highway 1 used to access the proposed Project area are discussed below.

##### Highways

During the construction season, access to the proposed Project area would be via Highway 1. At the segment of Highway 1 at Chalks Road, the 2017 average daily traffic (ADT) volume on Highway 1 was 13,800 vehicles per day (Caltrans, 2019).

##### Mass Transit

The nearest mass transit system is the Santa Cruz Metro bus system, with the nearest bus stops located in the City of Davenport on Highway 1, approximately 12 miles south of the intersection of Chalks Road and Highway 1 (Santa Cruz Metro, 2019).

##### Bicycle

Designated bicycle (and pedestrian) pathways within and adjacent to local roadways are not present in the immediate vicinity of the Project site, including Highway 1 (Santa Cruz County, 2011). It is possible that bicyclists utilize the shoulders of Highway 1 in the Project vicinity; however, the frequency of cyclists along this roadway segment are not expected to be frequent given the distance to nearest population centers.

#### Regulatory Background

##### State

**California Vehicle Code (CVC).** The CVC includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials.

### *Local*

**Santa Cruz County General Plan – Circulation Element.** The Circulation Element of the Santa Cruz County General Plan is intended to address circulation and capacity needs, safety and emergency access, and non-motorized transportation in the County (Santa Cruz County, 1994). There are no policies in the Circulation Element that are directly relevant to the proposed Project.

### **3.17.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Transportation and Traffic other than fulfillment of any necessary regulatory requirements.

### **3.17.3 Environmental Impacts**

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

**LESS THAN SIGNIFICANT.** The proposed Project would result in temporary traffic trips during construction. Truck trips associated with materials and equipment deliveries would likely be distributed throughout the workday. Temporary construction worker commute trips are assumed to come from the greater Santa Cruz and San Mateo areas. While temporary trips would occur on regional and local roadways, the Project would not generate traffic volumes that would significantly diminish the performance of the circulation system. When daily construction trips are added to the ADT volumes of project area freeways, only temporary minor increases to the existing ADT volumes occur. Once constructed, operation and maintenance (O&M) of the proposed Project would generate very few vehicle trips. Therefore, temporary and permanent traffic volumes associated with the Project would not conflict with any program pertaining to performance of the circulation system, including transit, bicycle, and pedestrian facilities. The impact would be less than significant.

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

**LESS THAN SIGNIFICANT.** As discussed in CEQA Guidelines Section 15064.3(b.3), a qualitative analysis of construction traffic vehicle miles travelled (VMT) may be appropriate. As discussed, temporary construction worker commute trips are assumed to come from the greater Santa Cruz County and San Mateo County area. Some truck trips associated with some materials and equipment deliveries are expected to originate from the Port of San Francisco or Oakland. While some construction truck trips may require high VMT to access the project site, they would be temporary trips and in limited numbers necessary to deliver specialized equipment and materials to the site. Upon completion of construction, all worker commute trips and truck trips would cease. Long-term Project O&M activities would generate very few vehicle trips, most coming from within the local area. At this time, no known applicable VMT thresholds of significance for temporary construction trips that may indicate a significant impact is known. Therefore, while the proposed Project would include temporary construction trips with some that may include high VMT to deliver specialized materials and equipment, they would be limited and temporary, and the Project would not affect existing transit uses or corridors. Therefore, this impact is less than significant transportation impact.

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

**LESS THAN SIGNIFICANT.** All construction disturbance would be localized around the work area only (on State-controlled private land within the proposed Project site). The Project does not include modifications to

any public roadways or driveways. During construction, trucks would be used to deliver large pieces of construction equipment and communications tower materials to the site. Though use of oversized trucks is unlikely, any oversized truck trips would obtain permits from Caltrans and local jurisdictions, as needed. The construction contractor would follow all rules and requirements of such permits. Impacts due to increased hazards associated with the project would be less than significant.

***d. Would the project result in inadequate emergency access?***

**LESS THAN SIGNIFICANT.** Trucks would deliver large pieces of construction equipment and communications tower materials to the site. These activities may require brief temporary roadway or lane closures/disruptions on local roads providing access to the site. Any road/lane closures would include flagmen to ensure traffic flow, including emergency vehicle flow through the area and access to any nearby residences or areas, would not be impacted. In addition, all oversized truck trips would require obtaining permits from Caltrans and local jurisdictions, as needed. The construction contractor would follow all rules and requirements of such permits. These permits include assurances for emergency vehicle movements and access. Impacts during construction would be less than significant.

Once operational, the proposed Project is intended to facilitate emergency communications and it would have no impact on access or movement to emergency service providers. O&M activities for the new tower would be performed by existing CAL FIRE personnel and would remain similar to that occurring under existing conditions, which include access road maintenance, inspections, tower checks, and necessary equipment replacement. Minimal maintenance of the Project components is anticipated after completion of construction and would not result in any impacts to roadways. Therefore, maintenance of the proposed Project would have no impact to emergency vehicle access and movements.

### 3.18 Tribal Cultural Resources

| TRIBAL CULTURAL RESOURCES                                                                                                                                                                                                                                                                                                                                                                                                 | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:                            |                                |                                                    |                                     |                          |
| (i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or                                                                                                                                                                                                                           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.18.1 Setting

Tribal Cultural Resources (TCRs), as defined under Assembly Bill 52 (AB 52) are resources that include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a California Native American tribe. Tribal representatives are considered experts appropriate for providing substantial evidence regarding the locations, types, and significance of TCRs within their traditional and cultural affiliated geographic areas, and therefore the identification and analysis of TCRs should involve government-to-government tribal consultation between the CEQA lead agency and interested tribal groups and/or tribal persons (Public Resources Code [PRC] § 21080.3.1(a)).

Additionally, best practices show that a lead agency should make a good faith effort to identify TCRs that may be impacted by a project even if a Native American tribe does not identify any during consultation. This includes requesting a search of the Native American Heritage Commission’s (NAHC) Sacred Lands file, conducting ethnographic research, and using information that has been previously provided during tribal consultation for other projects in the area.

#### Records Search and Pedestrian Survey Results

As documented in Section 3.5 (Cultural Resources), the records search at the CHRIS NWIC identified one previously completed survey report located within the Project area. This survey was conducted in 2009 and included the entire Project area. This study found no sensitive historical or prehistoric resources were identified within the Project area and no archaeological resources, or tribal cultural resources were identified in the Project area or within the 1/8-mile surrounding radius. Although the Project area was surveyed previously in 2009 with negative results, an additional survey was conducted because it had been 10 years since the previous survey.

Aspen Environmental Group therefore conducted an intensive archaeological pedestrian survey of the proposed Project area and 30-meters adjacent to the Project area. The survey consisted of an opportunistic survey, depending on topography and proximity to existing developed structures. Evidence of past human occupation and use of the area was searched for carefully by observing the ground surface for any changes in soil discoloration or cultural materials. Objects that typically would suggest human use of the area include stone tools, beads, ground stone, historic cans and other historic debris. Archaeological sub-surface testing was not conducted. Attention was given to observing the ground surface for indication of buried human remains present in the Project area. Joshua Noyer, MA, a qualified archaeologist per the Secretary of the Interior's Qualification Standards for Professional Archaeology, performed the pedestrian survey on October 18, 2018. No cultural resources were identified during the intensive survey.

### **Sacred Lands File Search**

On August 17, 2018, Aspen Environmental Group requested a search of the NAHC Sacred Lands File database. On August 20, 2018, the NAHC responded with a negative result for known sacred sites or tribal cultural resources as defined by the CEQA within the Chalk Mountain Project area or surrounding quarter-mile radius.

### **Tribal Outreach**

There are currently no tribes or tribal representatives with cultural affiliations to the Project area that have previously contacted CAL FIRE in writing to request to be notified of projects. Therefore, pursuant to Public Resources Code 21080.3.1. (a), the State has fulfilled its legal obligations under AB 52.

The NAHC response to Aspen Environmental Group included contact information for five California native groups that identify with the Project area. Letters were sent to each group with information about the Project and a request for any information about resources important to the Tribe that may be potentially impacted. No concerns were voiced by the five groups. The proposed Project's effects on potentially buried and therefore presently unidentified TCRs was evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines and with consideration to AB 52 and the Governor's Office of Planning and Research's, "Revised Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA" (OPR, 2017).

### **Regulatory Background**

There are no federal regulations associated with TCRs that are relevant to the proposed Project.

#### ***State***

There are numerous State regulations and policies that direct management of cultural resources on State lands and by State agencies. The following is a discussion of the most pertinent laws affecting the proposed Project and impact analysis from a State perspective. These laws identify four types of resources: historical resources, unique archaeological resources, human remains, and tribal cultural resources (TCRs). Please see Section 3.5, Cultural Resources, for more details about potentially relevant State regulations.

**Assembly Bill 52.** AB 52 requires consultation with a tribe that is traditionally and culturally affiliated to the geographic area where a project is located if the tribe has requested consultation regarding projects in the tribe's area of traditional and cultural affiliation. The Public Resources Code section 21074 defines a TCR as "a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe." TCRs also include "non-unique archaeological resources" that may not be scientifically significant, but still hold sacred or cultural value to a consulting tribe.

**California Environmental Quality Act.** CEQA requires that impacts to TCRs be identified and, if impacts will be significant, that mitigation measures be implemented to reduce those impacts to the extent feasible (PRC § 21081). In the protection and management of the cultural environment, both the statute and the CEQA Guidelines provide definitions and standards for management of TCRs.

A resource is considered significant if it is: (1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PCR § 5020.1(k); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in of PCR § 5024.1(c). In applying these criteria, the lead agency must consider the significance of the resource to a California Native American tribe.

A project may have substantial adverse change in the significance of a TCR if:

- *The adverse change is identified through consultation with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project (PCR § 21084.2).*
- *The resource is listed, or eligible for listing, in the California Register of Historical Resources or in a local register of historical resources, and it is demolished as described in detail above (State CEQA Guidelines section 15064.5 (b)).*

The fact that a TCR is not listed in or determined to be ineligible for listing in the CRHR, is not included in a local register of historical resources, or is not identified in a historical resources survey does not preclude a lead agency from determining that the resource may be a historical resource.

### **Local**

**Santa Cruz County General Plan.** The Santa Cruz County General Plan includes a Conservation and Open Space Element, which addresses cultural resources of Santa Cruz County (Santa Cruz County, 1994). Because the proposed Project site and surrounding area do not contain any identified cultural resources, a review of the Conservation and Open Space Element found no policies directly relevant to the proposed Project.

### **3.18.2 Applicant Proposed Measures (APMs)**

In addition to compliance with regulatory requirements, the following APM would be implemented as part of the proposed Project.

**APM CR-2 Inadvertent Discovery of Historical Resources, Unique Archaeological Resources or Tribal Cultural Resources** [the full text of the APM is available in Section 3.5].

### **3.18.3 Environmental Impacts**

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***
  - (i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

**LESS THAN SIGNIFICANT.** There are no known TCRs listed in, or known to be eligible for listing in, the CRHR or local register of historical resources within the proposed Project site or within 0.25 miles of the project

site. Although there is no evidence that TCRs exist within the proposed Project site, it is possible that previously unidentified TCRs that may be eligible for inclusion in the National Register of Historic Places (NRHP), CRHR, or local registers could be discovered and damaged, or destroyed, during ground disturbance, which would constitute a significant impact. Implementation of APM CR-2 as part of the proposed Project would evaluate and protect unanticipated TCR discoveries; thereby, ensuring that any potential impact would be less than significant.

***(ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

**LESS THAN SIGNIFICANT.** No known TCRs were identified during a search of the NAHC's Sacred Lands File, or during ethnographic research, and Native American tribes did not request to be notified of projects pursuant to AB 52, and thus did not participate in government-to-government consultation to identify TCRs present. Nevertheless, it is possible that previously unidentified TCRs that may qualify as a significant resource according to lead agency determination could be discovered and damaged, or destroyed, during ground disturbance. Such a discovery or inadvertent damage/destruction to a previously unknown TCR would constitute a potentially significant impact. However, implementation of APM CR-2, which is discussed under Item (a), would evaluate and protect unanticipated TCR discoveries, thereby ensuring this potential impact would be less than significant.

### 3.19 Utilities and Service Systems

#### UTILITIES AND SERVICE SYSTEMS

Would the project:

|                                                                                                                                                                                                                                                                                      | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?                                                                                                                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?                                                    | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?                                                                                              | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?                                                                                                                                                                   | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

#### 3.19.1 Setting

##### Utilities

###### *Water Supply*

Santa Cruz Municipal Utilities (SCMU) provides customer service for water to the unincorporated surrounding areas, including the general project area. However, given the remote nature of the immediate proposed Project area, it is likely that well water or water delivery service would be required.

###### *Electricity and Natural Gas*

PG&E provides electrical and gas services in the project area. Privately owned propane tanks, solar energy generators, and/or electrical generators are also used given the remote nature of the immediate proposed Project area.

##### Service Systems

###### *Sewerage/Wastewater*

There is no sewer collection facility or wastewater treatment provider that serves the unincorporated area in the vicinity of the proposed Project. Wastewater treatment systems are primarily privately owned and operated, such as individual septic tanks.

###### *Solid Waste Disposal*

The County of Santa Cruz accepts over 450 tons of refuse on a daily basis. The Buena Vista Landfill accepts an average of 350 tons, while the Ben Lomond Transfer Station accepts 100 tons of refuse daily which is trucked to Buena Vista Landfill (County of Santa Cruz, 2019). The Buena Vista Landfill is a Class III landfill

operating under State of California Solid Waste Facilities Permit from CalRecycle (California Department of Resources Recycling and Recovery). The Ben Lomond Transfer Station also operates under State of California Solid Waste Facilities Permit from CalRecycle. The Buena Vista Landfill is equipped with an environmental liner system exceeding Federal Subtitle D and State of California standards, including a leachate collection and removal system and a four-layer composite liner. Materials accepted at the Buena Vista Landfill are Class III non-hazardous residential, commercial and industrial waste, dewatered sewage sludge, and low-level petroleum contaminated soils. Materials accepted at the Ben Lomond Transfer Station are Class III non-hazardous residential, commercial, and industrial waste.

## Regulatory Background

There are no federal regulations associated with utilities and service systems that are relevant to the proposed Project.

### *State*

**California Government Code – Protection of Underground Infrastructure.** The responsibilities of California utility operators working in the vicinity of utilities are detailed in Section 1, Chapter 3.1, “Protection of Underground Infrastructure” (Article 2 of California Government Code §§ 4216-4216.9). This law requires that an excavator must contact a regional notification center at least two days prior to excavation of any subsurface installation. Any utility provider seeking to begin a project that may damage underground infrastructure can call Underground Service Alert, the regional notification center. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area. The code also requires excavators to probe and expose underground facilities by hand prior to using power equipment.

**California Integrated Waste Management Act of 1989.** Assembly Bill 939 codified the California Integrated Waste Management Act of 1989 in the Public Resources Code and established a hierarchy to help the California Integrated Waste Management Board (CIWMB) and local agencies implement three major priorities under the Integrated Waste Management Act: source reductions; recycling and composting; and environmentally safe transformation and land disposal. Waste diversion mandates are included under these priorities. The duties and responsibilities of the CIWMB have since been transferred to the California Department of Resources Recycling and Recovery (CalRecycle) after the abolishment of the CIWMB in 2010, but all other aspects of the Act remain unchanged.

The Act requires all local and county governments to adopt a waste reduction measure designed to manage and reduce the amount of solid waste sent to landfills. This Act established reduction goals of 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 1016 (2007) streamlines the process of goal measurement related to Assembly Bill 939 by using a disposal-based indicator: the per capita disposal rate. The per capita disposal rate uses only two factors: the jurisdiction’s population (employment can be considered in place of population in certain circumstances) and the jurisdiction’s disposal as reported by disposal facilities. CalRecycle encourages reduction measures through the continued implementation of reduction measures, legislation, infrastructure, and support of local requirements for new developments to include areas for waste disposal and recycling on-site.

**California Code of Regulations (Title 27).** Title 27 (Environmental Protection) of the California Code of Regulations defines regulations and minimum standards for the treatment, storage, processing, and disposal of solid waste at disposal sites. The State Water Resources Control Board maintains and regulates compliance with Title 27 (Environmental Protection) of the California Code of Regulations by establishing waste and site classifications and waste management requirements for solid waste treatment, storage, or

disposal in landfills, surface impoundments, waste piles, and land treatment units. The compliance of the proposed Project would be enforced by the Central Valley RWQCB Region 5 and the California Department of Resources Recycling and Recovery (CalRecycle) (formerly the California Integrated Waste Management Board). Compost facilities are regulated under CCR Title 14, Division 7, Chapter 3.1 Section 17850 through 17895, by CalRecycle. Permit requests, Reports of Waste Discharge, and Reports and Disposal Site Information are submitted to the RWQCB and CalRecycle, and are used by the two agencies to review, permit, and monitor these facilities.

### **Local**

**Santa Cruz County General Plan.** The Santa Cruz County General Plan includes a Parks, Recreation, and Public Facilities Element, which addresses utilities and service systems resources of Santa Cruz County (Santa Cruz County, 1994). A review of the Parks, Recreation, and Public Facilities Element found no policies directly relevant to the proposed Project.

### **3.19.2 Applicant Proposed Measures (APMs)**

No APMs are proposed for Utilities and Service Systems other than fulfillment of any applicable regulatory requirements.

### **3.19.3 Environmental Impacts**

**a. *Would the project 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.** The proposed Project involves upgrading/supplementing CAL FIRE's existing telecommunications infrastructure to support the State's PSMN and continue to provide an essential emergency communications linkage for CAL FIRE's fire protection and emergency response command and control throughout the area. The existing Project site is located along a ridgeline approximately 0.75 miles west of Chalk Mountain and is developed and cleared of vegetation. There are an existing building, a tank, a generator, concrete footings, a telecommunication pole, and a small solar PV installation.

Upon completion of construction activities and testing of Project components, all disturbed work areas (including access roads) would be restored to prior conditions. Since the Project involves the replacement of an existing telecommunications pole at a previously disturbed site that is generally clear of vegetation and with the plans for post-construction restoration, no significant environmental impacts would result from construction activities. The proposed Project does not require and would not result in the relocation or construction of any new or expanded water, wastewater treatment or stormwater drainage, electric power, or natural gas facilities. The Project does include development of a new larger solar PV installation. However, this facility would provide power only to the proposed Project. Overall, the Project would have a less than significant impact.

**b. *Would the project 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 proposed Project does not require a permanent, long-term water source. Water would be used as needed for dust control during construction and concrete mixing, and would be obtained from offsite water purveyors. A water truck would deliver water to the work area during site preparation and facility installation. Upon completion, the proposed Project would not generate any demand for

water. Overall, the proposed Project would not be expected to exceed the existing water supplies available to serve the proposed Project and reasonably foreseeable future development during normal, dry and multiple dry years, and this impact would be less than significant.

***c. Would the project 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.** There is no sewer collection facility or wastewater treatment provider that serves the unincorporated area in the vicinity of the Project site in Chalk Mountain. Water would be used as needed for dust control during construction and this water would either evaporate or absorb into the ground. During construction, restroom facilities would be provided by portable units serviced by licensed providers. Operations would not generate any demand for water or generate wastewater. Overall, since no wastewater treatment provider services the area, there would be no impact.

***d. Would the project 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.** Soil spoils from the new tower, vault, and propane tank foundation excavations and the removal of existing telecommunication facilities, including the old communication pole and vault would be the main source of solid waste generated by construction. Spoils from foundation excavations would be placed within the Project site as fill. The old communication pole and other existing facilities to be replaced would be disassembled and recycled. The amount of waste materials for disposal generated as a result of construction activities is anticipated to be minor compared to the capacity of the Ben Lomond Transfer Station or locally used recycling centers and landfills. No solid waste would be generated as a result of operation or maintenance of the proposed Project. Therefore, the Project would not generate solid waste in excess of State or local standards, in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; any impacts would be less than significant.

***e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

**NO IMPACT.** The California Integrated Waste Management Act of 1989, which emphasizes resource conservation through the reduction, recycling, and reuse of solid waste guide solid waste management requires that localities conduct a Solid Waste Generation Study (SWGS) and develop a Source Reduction Recycling Element (SRRE). The proposed Project would operate in accordance with these applicable Solid Waste Management Policy Plans by including recycling where feasible. As identified in Item (d) above, the disposal site serving the Project would have sufficient capacity to accommodate proposed Project construction solid waste disposal needs and solid waste disposal would not require the need for new or expanded landfill facilities. The old communications tower and other existing facilities to be replaced would be disassembled and recycled. Therefore, the proposed Project would comply with federal, State, and local statutes and regulations related to solid waste reduction. No impact would occur.

## 3.20 Wildfire

| WILDFIRE                                                                                                                                                                                                                                                           | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, <b>would the project:</b>                                                                                                                            |                                |                                                    |                                     |                          |
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan?                                                                                                                                                                           | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?                                                       | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?                                                                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

### 3.20.1 Setting

Generally, the fire season in Santa Cruz County extends from early spring to late fall. Fire conditions arise from a combination of hot weather, an accumulation of vegetation, and low moisture content in the air. These conditions, when combined with high winds and years of drought, increase the potential for wildfire to occur. Potential losses from wildfire include: human life, structures and other improvements; natural and cultural resources; the quality and quantity of the water supply; other assets such as timber, range and crop land, and recreational opportunities; and economic losses. In addition, catastrophic wildfire can lead to secondary impacts or losses such as future flooding and landslides during the rainy season.

There are three major factors that sustain wildfires and predict a given area’s potential to burn: fuel, topography, and weather. Wildfire risk is predominantly associated with Wildland-Urban Interface (WUI) areas. WUI applies to development that is interspersed or adjacent to landscapes that support wildland fire. A fire along this wildland/urban interface can result in major property and structure loss.

The Santa Cruz County Fire Department is a full service fire agency that provides service in 266 square miles of the un-incorporated areas of the County not protected by other local government fire agencies. Santa Cruz County Fire Department’s service includes fire protection, emergency medical service, fire prevention, fire marshal, and public education. Volunteer firefighters constitute the majority of County Fire’s staff. Santa Cruz County contracts with the CAL-FIRE for management and services (Santa Cruz County Fire Department, 2012).

The proposed Project site, and existing CAL Fire telecommunications facility, is located along a ridgeline approximately 0.75 miles west of Chalk Mountain. The area surrounding the proposed site is largely undeveloped forest with steep terrain. The proposed Project area falls within a high fire hazard severity zone within the State Responsibility Area (CAL FIRE, 2007). The proposed Project site and surrounding area were burned by the CZU Lightning Complex Fires in August to September 2020. CAL FIRE, the project proponent, has responsibility for providing fire protection services for the Chalk Mountain region.

## Regulatory Background

### *Federal*

**Federal Wildland Fire Management Policy.** The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. Guidance for Implementation of Federal Wildland Fire Management Policy was issued in 2009. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation guidance are founded on the following guiding principles:

- Firefighter and public safety are the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, State, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

### *State*

**California Fire Code.** The California Fire Code is contained within Chapter 9 of Title 24 of the California Code of Regulations (CCR). Based on the International Fire Code, the California Fire Code is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

**California Health and Safety Code.** State fire regulations are established in Section 13000 of the California Health and Safety Code. The section establishes building standards, fire protection device equipment standards, high-rise building and childcare facility standards, interagency support protocols, and emergency procedures. Section 13027 states that the state fire marshal shall notify industrial establishments and property owners having equipment for fire protective purposes of the changes necessary to bring their equipment into conformity with, and shall render them such assistance as may be available in converting their equipment to, standard requirements.

**California Fire Plan.** The California Fire Plan is the statewide plan for reducing the risk of wildfire. The basic principles of the Fire Plan are as follows:

- Involve the community in the fire management planning process
- Assess public and private resources that could be damaged by wildfires

- Develop pre-fire management solutions and implement cooperative programs to reduce community's potential wildfire losses.

One of the more important objectives of the plan regards pre-fire management solutions. Included within the realm of pre-fire management solutions are fuel breaks, the establishment of Wildfire Protection Zones, and prescribed fires to reduce the availability of fire fuels. In addition, the Fire Plan recommends that clearance laws, zoning, and related fire safety requirements implemented by state and local authorities address fire-resistant construction standards, hazard reduction near structures, and infrastructure.

**Public Resources Code 4291.** Public Resources Code 4291 provides that a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall at all times maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line.

### **Local**

**Santa Cruz County Community Wildfire Protection Plan.** The Santa Cruz County and San Mateo County Community Wildfire Protection Plan (CWPP) was prepared in 2010 based on the requirements of the Healthy Forest Restoration Act of 2003, which identifies measures that protect and restore forest land. The CWPP identifies the risks and hazards associated with wildland fires in the wildland urban interface areas of San Mateo and Santa Cruz Counties and makes recommendations for preventing and reducing infrastructure and ecosystems damage associated with wildland fires.

**Santa Cruz County Local Hazard Mitigation Plan.** The Disaster Mitigation Act of 2000, PL-106-390 requires that each State develop a hazard mitigation plan, in order to receive future disaster mitigation funding following a disaster. The requirements also call for the development of local or county plans for that particular county to be eligible for post-disaster mitigation funding. The purpose of these requirements is to encourage state and local government to engage in systematic and nationally uniform planning efforts that will result in locally tailored programs and projects that help minimize loss of life, destruction of property, damage to the environment and the total cost of disasters before they occur. The hazard mitigation plan contains a description of hazards identified as potential significant threats to Santa Cruz County — earthquakes, wildfires, floods, drought, tsunami, coastal erosion, landslide, dam failure, and expansive soils — and the exposure and vulnerability of the County to these hazards.

**Santa Cruz County General Plan.** The Santa Cruz County General Plan Public Safety and Noise Element identifies Objective 6.5 Fire Hazards to protect the public from the hazards of fire through citizen awareness, mitigating the risks of fire, responsible fire protection planning and built-in systems for fire detection and suppression. Relevant fire-related polices to meet this objective:

- **Policy 6.5.3** Conditions for Project Approval. Condition approval of all new structures and additions larger than 500 square feet, and to single family dwellings on existing parcels of record to meet the following fire protection standards:
  - (a) Address numbers shall be posted on the property so as to be clearly visible from the access road. Where visibility cannot be provided, a post or sign bearing the numbers shall be set adjacent to the driveway or access road to the property and shall have a contrasting background. Numbers shall be posted when construction begins.
  - (b) Provide adequate water availability. This may be provided from an approved water system within 500 feet of a structure, or by an individual water storage facility (water tank, swimming pool, etc.) on the property itself. The fire department shall determine the adequacy and location of individual

water storage to be provided. Built-in fire protection features (i.e., sprinkler systems) may allow for some exemptions of other fire protection standards when incorporated into the project.

- (c) Maintain around all structures a clearance of not less than 30 feet or to the property line (whichever is a shorter distance) of all flammable vegetation or other combustible materials; or for a greater distance as may be prescribed by the fire department.
  - (d) Provide and maintain one-half inch wire mesh screens on all chimneys.
  - (e) Automatic smoke detection devices shall be installed and maintained in accordance with the California Building Code and local Fire Department regulations. Sprinkler and fire alarm systems, when installed, shall meet the requirements of the local Fire Department.
  - (f) Provide adequate disposal of refuse. All development outside refuse collection boundaries shall be required to include a suitable plan for the disposal of flammable refuse. Refuse disposal shall be in accordance with state, County or local plans or ordinances. Where practical, refuse disposal should be by methods other than open burning.
  - (g) Require fire retardant roofs on all projects, as specified in the County Fire Code and the Uniform Fire Code. Exterior walls constructed of fire resistant materials are recommended, but are not necessarily required.
- **Policy 6.5.7** Certification of Adequate Fire Protection Prior to Permit Approval. Require all land divisions, multi-unit residential complexes, commercial and industrial complexes, public facilities and critical utilities to obtain certification from the appropriate fire protection agency that adequate fire protection is available, prior to permit approval.
  - **Policy 6.5.8** Public Facilities Within Critical Fire Hazard Areas. Discourage location of public facilities and critical utilities in Critical Fire Hazard Areas. When unavoidable, special precautions shall be taken to ensure the safety and uninterrupted operation of these facilities.
  - **Policy 6.5.9** Consistency With Adopted Codes Required for New Development. Require all new development to be consistent with the Uniform Fire Code, California Building Code, and other adopted County and local fire agency ordinance.

### 3.20.2 Applicant Proposed Measures (APMs)

No APMs are proposed for Wildfire other than fulfillment of any applicable regulatory requirements.

### 3.20.3 Environmental Impacts

#### *a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

**LESS THAN SIGNIFICANT.** The roads providing access to the project site from Highway 1 are not known to be included as part of an officially designated emergency response or evacuation plan. During construction of the proposed Project, trucks are expected to deliver large pieces of construction equipment and communications tower materials to the site. These activities may require brief temporary disruptions on Highway 1 leading to the access road to the site that would impact evacuation plans in the event of a wildfire. However, any road/lane closures would include flagmen, including emergency vehicle flow through the area and access to any nearby residences or areas, to ensure traffic flow would not be impacted. In addition, all oversized truck trips would require obtaining permits from Caltrans and local jurisdictions, as needed. These permits include assurances for emergency vehicle movements and access.

Once operational, the proposed Project would facilitate emergency communications and would not impact or impair an adopted emergency response plan or emergency evacuation plan. Operation and maintenance (O&M) activities for the improved telecommunication facility would be performed by existing CAL FIRE personnel and would remain similar to those occurring under existing conditions. Minimal maintenance of the Project components is anticipated after completion of construction and would not result in any impacts to roadways.

Overall, since the potential impacts to routes leading to the site access road are temporary and since the State would take appropriate actions to coordinate with local jurisdictions, there would be a less than significant impact on an adopted emergency response plan or emergency evacuation plan.

***b. Would the project, 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?***

**LESS THAN SIGNIFICANT.** The proposed Project is located along a ridgeline and the surrounding area is largely undeveloped with steep terrain. Fossil fuels would be used for construction vehicles and other equipment during site grading, foundation excavation, general construction, and tower installation. The combined conditions of steep slope, high wind potential at the summit, and the presence and usage of fuels and power could lead to a temporary increased risk of wildfire and pollutant concentrations in the event of a wildfire during construction. However, the site and vicinity were largely burned over in the 2020 CZU August Lightning Complex fire, reducing the forest fuel load. To reduce the wildfire risk during construction, the State would implement standard CAL FIRE fire prevention protocols and follow a fire prevention plan. Once constructed, the Project would utilize solar energy for power, with secondary power provided by an on-site propane-fueled generator. A propane storage tank is proposed as part of the proposed Project, and the generator would be placed within the new vault. Since the Project site currently has an existing building and other infrastructure, including an existing telecommunications tower and other facilities that require generator and solar power, the proposed Project would not result in any significant changes to the project site with regard to fuels or potential fire ignition. Therefore, the proposed Project would have a less than significant impact to wildfire risk and increased pollutant concentrations as a result of the prevailing winds, slope and elevation of the project site.

***c. Would the project 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.** The proposed Project includes construction of a replacement communications tower and associated facilities designed to improve CAL FIRE's emergency communications. All construction activities associated with the proposed Project would occur within the existing telecommunications facility site. During construction, project-related activities have the potential to be an ignition source for a wildland fire. Examples of ignition sources include sparks from welding or from metal striking metal or stone igniting surrounding vegetation, parking vehicles over dry vegetation where hot undercarriages could ignite grass or shrubs, and improperly discarded smoking materials. Given the 2020 fire and the lack of vegetation on the site, this risk is low. To reduce the wildfire risk, the State would implement standard CAL FIRE fire prevention protocols and follow a fire prevention plan. While the proposed Project would slightly increase the amount of infrastructure within the existing telecommunications site, because the State would implement CAL FIRE-approved fire prevention practices during construction, the increase in associated fire risk during construction would be less than significant.

O&M activities would occur consistent with those conducted at the existing telecommunications facilities. Further, CAL FIRE would continue to comply with all current federal and State laws related to vegetation clearance, if needed, and fire prevention. No additional impact would occur due to Project O&M activities.

***d. Would the project 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 proposed Project is located along a ridgeline and the surrounding area is largely undeveloped steep terrain. The nearest residences are located approximately 0.75-mile northeast from the Project site on the opposite side of the ridge from the Project. Ground disturbance in the proposed Project work area from excavation of the tower, replacement vault, and propane tank foundations could destabilize adjacent slopes and trigger slope failures, including landslides. However, all facilities are proposed to be at least 20 feet back from the top of slope. Excavation within or near existing slope failures could also trigger movement. Although the surrounding area has moderate landslide susceptibility, the project site is relatively flat and does not show any evidence of landslide movement. Any earthwork would enable water to flow in the direction of the natural drainage and would be designed to prevent ponding and erosion. The overall goal of post-construction restoration would be to restore natural contours approximately equivalent to pre-construction conditions.

The State has conducted geotechnical/geologic surveys that identify areas with the potential for unstable slopes, landslides, rock fall, and debris flows where earthquakes or project excavation could trigger slope failure (DGS, 2018). Final engineering would incorporate the results of the geotechnical evaluations into the tower design and location, and adherence to building standards would ensure any impacts related to downstream flooding or landslides would be less than significant. See Section 3.7.3 (Geology and Soil), Item a.iv, which also addresses landslide risk.

### 3.21 Mandatory Findings of Significance

| MANDATORY FINDINGS OF SIGNIFICANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Potentially Significant Impact      | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | <input checked="" type="checkbox"/> | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input type="checkbox"/> |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ( <i>Cumulatively considerable</i> means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)                                                                                                                                  | <input type="checkbox"/>            | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?                                                                                                                                                                                                                                                                                                                                           | <input type="checkbox"/>            | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Significance criteria established by CEQA Guidelines, Appendix G.

- a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**POTENTIALLY SIGNIFICANT.** As described in Section 3.0, the proposed Project could have potentially significant impacts in the following issue areas: Aesthetics, Biological Resources, and Land Use, and these potential impacts will be evaluated further in an Environmental Impact Report. For all other impacts, the proposed Project’s effects were determined to be less than significant or have no impact.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)**

**LESS THAN SIGNIFICANT.** The proposed Project would have only cumulatively considerable impacts if the Project impacts could combine with cumulative project impacts to result in a significant impact. For most resources (Agriculture and Forestry, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildlife), cumulative projects in the area would be located too far away to combine with the impacts of the proposed Project given the limited scale of the project impacts, the duration of the impacts (short-term), and the site’s remote location. Greenhouse gas emissions is a cumulative analysis and concluded that the impacts would be less than significant.

Because the proposed Project would be visible throughout the life of the Project, it could contribute to a cumulative aesthetic impact. However, no known cumulative projects are located within close proximity

(within 2 to 3 miles) of the proposed Project that could significantly affect viewsheds in a cumulative way (the proposed Project and a cumulative project would be visible from the same location). Because of the distance and the existing baseline (existing 60-foot telecommunication pole), the proposed Project and any cumulative projects would not combine to result in a significant cumulative impact.

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

**LESS THAN SIGNIFICANT.** As described in Sections 3.1 through 3.20, most impacts resulting from the proposed Project are less than significant or no impact would occur, and where the potential for a significant impact exists (aesthetics, biological resources, and land use), the types of impacts would not affect human beings, either directly or indirectly.

# Section 4

List of Preparers

## 4. List of Preparers

A consultant team headed by Aspen Environmental Group prepared this document under the direction of the California Department of General Services on behalf of CAL FIRE. The preparers and technical reviewers of this document are presented below.

### Lead Agency Representative

#### *California Department of General Services*

|                                           |                                         |
|-------------------------------------------|-----------------------------------------|
| Terry Ash, Project Manager.....           | Lead Agency Contact                     |
| Aubree French, Project Director.....      | Lead Agency Project Director            |
| Janet Esola, Cal OES Program Manager..... | Engineering/Technical Support Oversight |
| Patrick Vadnais, Cal OES.....             | Engineering/Technical Support           |

### Project Management and Document Production

#### *Aspen Environmental Group – Prime Contractor*

|                                            |                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hedy Koczvara, Senior Associate.....       | Project Manager                                                                                                                                                                                                                                                                                            |
| Brewster Birdsall, Senior Associate.....   | Air Quality, Greenhouse Gas Emissions, Noise                                                                                                                                                                                                                                                               |
| Emily Capello, Senior Associate.....       | Mandatory Findings of Significance                                                                                                                                                                                                                                                                         |
| Josh Noyer, Archaeologist.....             | Cultural Resources                                                                                                                                                                                                                                                                                         |
| Justin Wood, Senior Biologist.....         | Biological Resources                                                                                                                                                                                                                                                                                       |
| Michael Macko, Senior Archaeologist.....   | Cultural Resources                                                                                                                                                                                                                                                                                         |
| Scott Debauche, Senior Associate.....      | Aesthetics; Agriculture and Forestry; Geology and<br>Soils; Greenhouse Gas; Hazards and Hazardous<br>Materials; Hydrology and Water Quality; Land Use<br>and Planning; Mineral Resources; Noise; Population<br>and Housing; Public Services, Utilities, and Service<br>Systems; Recreation; Transportation |
| Vida Strong, Senior Associate.....         | Senior Reviewer                                                                                                                                                                                                                                                                                            |
| Fritts Golden, Senior Associate.....       | Senior Reviewer                                                                                                                                                                                                                                                                                            |
| Kati Simpson, Senior Graphic Designer..... | Graphics                                                                                                                                                                                                                                                                                                   |
| Tracy Popiel, GIS Specialist.....          | GIS/Graphics                                                                                                                                                                                                                                                                                               |
| Chris Notto, GIS Specialist.....           | GIS/Graphics                                                                                                                                                                                                                                                                                               |
| Mark Tangard, Documents Manager.....       | Document Production                                                                                                                                                                                                                                                                                        |

#### *Ecobridges Environmental Consulting, Inc.*

|                              |                  |
|------------------------------|------------------|
| Anne Wallace, Biologist..... | Wildlife Biology |
|------------------------------|------------------|

# Section 5

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## 5. References

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