

NEGATIVE DECLARATION

FILE: S15-0009

PROJECT NAME: Verizon Wireless Communication Facility Jackpine Monopine

NAME OF APPLICANT: Alan Heine for Verizon Wireless

ASSESSOR'S PARCEL NO.: 070-072-57-100

SECTION: 11N T: 10NE R: 8E

LOCATION: Northwest corner of the intersection of Ponderosa Road with Meder Road in the Shingle Springs area.

- ☐ **GENERAL PLAN AMENDMENT:** **FROM:** **TO:**
- ☐ **REZONING:** **FROM:** **TO:**
- ☐ **TENTATIVE PARCEL MAP** ☐ **SUBDIVISION TO SPLIT** **ACRES INTO** **LOTS**
SUBDIVISION (NAME):
- ☒ **SPECIAL USE PERMIT TO ALLOW:** Installation of a wireless telecommunication facility consisting of a 70-foot monopine tower, six antennas with nine remote radio heads and two surge protectors mounted at 62-feet, an 11-foot 6-inch by 16-foot 10.5-inch equipment shelter to house equipment cabinets and associated equipment, a 30kw standby diesel generator on a 7- by 13-foot concrete pad, all within a 30- by 30-foot lease area enclosed with a 6-foot chain link fence with tan slats and two rows of barbed wire on top.
- ☐ **OTHER:**

REASONS THE PROJECT WILL NOT HAVE A SIGNIFICANT ENVIRONMENTAL IMPACT:

- ☒ **NO SIGNIFICANT ENVIRONMENTAL CONCERNS WERE IDENTIFIED DURING THE INITIAL STUDY.**
- ☐ **MITIGATION HAS BEEN IDENTIFIED WHICH WOULD REDUCE POTENTIALLY SIGNIFICANT IMPACTS.**
- ☐ **OTHER:**

In accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), State Guidelines, and El Dorado County Guidelines for the Implementation of CEQA, the County Environmental Agent analyzed the project and determined that the project will not have a significant impact on the environment. Based on this finding, the Development Services Division hereby prepares this **NEGATIVE DECLARATION**. A period of thirty (30) days from the date of filing this negative declaration will be provided to enable public review of the project specifications and this document prior to action on the project by **COUNTY OF EL DORADO**. A copy of the project specifications is on file at the County of El Dorado Planning Services, 2850 Fairlane Court, Placerville, CA 95667.

This Negative Declaration was adopted by the Planning Commission on November 12, 2015.

Executive Secretary

EXHIBIT I



EL DORADO COUNTY PLANNING SERVICES
2850 FAIRLANE COURT
PLACERVILLE, CA 95667
INITIAL STUDY
ENVIRONMENTAL CHECKLIST

Project Title: S15-0009/Verizon Wireless Communication Facility – Jackpine Monopine

Lead Agency Name and Address: El Dorado County, 2850 Fairlane Court; Placerville, CA 95667

Contact Person: Rob Peters, Associate Planner

Phone Number: (530) 621-6644

Project Applicant's Name and Address: Verizon Wireless, 255 Parkshore Drive, Folsom, CA 95630

Project Agent's Name and Address: Alan Heine, 8230 Finisterre Court, Fair Oaks, CA 95628

Project Engineer's Name and Address: MT2 Telecom, PO Box 458, Rio Vista, CA 94571

Project Location: Northwest corner of the intersection of Ponderosa Road with Meder Road in the Shingle Springs Area.

Assessor's Parcel Number: 070-072-57

Acres: 28.57 acres

Section: 11 **T:** 10N **R:** 8E

General Plan Designation: Low Density Residential (LDR)

Zoning: Estate Residential (RE-10)

Description of Project: Special use permit request to allow the construction of a wireless communications facility consisting of a 70-foot monopine tower, six antennas with nine remote radio heads and two surge protectors mounted at 62-feet, an 11-foot 6-inch by 16-foot 10.5-inch equipment shelter, a 30kw standby diesel generator on a 7- by 13-foot concrete pad, all within a 30- by 30-foot lease area enclosed with a 6-foot chain link fence with tan slats and two rows of barbed wire on top. Access to the site would be provide by a 15-foot wide, approximately 550-foot long non-exclusive Verizon Wireless access easement containing the existing gravel driveway taking access off Ponderosa Road. The existing driveway encroachment will be paved.

Surrounding Land Uses and Setting:

	Zoning	General Plan	Land Use/Improvements
Site	RE-10	LDR	Vacant residential land
North	RE-5	LDR	Single-family residences
South	R1A	MDR	Single-family residences
East	RE-5; R1; and R1A	LDR; HDR; and PF	Single-family residences, Ponderosa High School
West	RE-10	LDR	Vacant residential land

Briefly Describe the Environmental Setting: The project site is located on a 28.57-acre parcel, approximately 1,518 feet above sea level. There are no structures currently on the site. Previously disturbed areas once contained a manufactured home that was located just southeast of the proposed lease area and was accessed by the existing gravel driveway. The manufactured home is no longer on the parcel. The proposed lease area contains no trees. However, oak and pine trees exist in close proximity. The remainder of the lot is characterized by sparse to moderate cover of oaks, pines, shrubs, and grasses. The closest off-site residence is located approximately 300 feet northwest of the proposed tower and lease area location.

Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement)

1. Transportation Division: Review of Conditions of Approval.
2. El Dorado County Environmental Management: Review of Conditions of Approval.
3. El Dorado County Fire Protection District: Review and approval of Building Permit.
4. Building Services: Review and approval of Grading and Building Permits.
5. Air Quality Management District: Review and approval of Asbestos Dust Mitigation Plan.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED


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

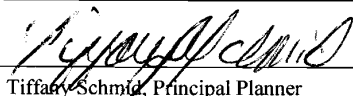
	Aesthetics		Agriculture and Forestry Resources		Air Quality
	Biological Resources		Cultural Resources		Geology / Soils
	Greenhouse Gas Emissions		Hazards & Hazardous Materials		Hydrology / Water Quality
	Land Use / Planning		Mineral Resources		Noise
	Population / Housing		Public Services		Recreation
	Transportation/Traffic		Utilities / Service Systems		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 in attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standards; and b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or Mitigation Measures that are imposed upon the proposed project, nothing further is required.

Signature:  Date: 10-5-15
Printed Name: Rob Peters, Associate Planner For: El Dorado County

Signature:  Date: 10/05/15
Printed Name: Tiffany Schmidt, Principal Planner For: El Dorado County

PROJECT DESCRIPTION

Introduction

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts resulting from the proposed project. The project would allow the construction of a wireless telecommunications facility.

Purpose

The Project would provide improved wireless telecommunication capacity and coverage along the Ponderosa Road Corridor, to rural residential properties in the area, additional off load of freeway traffic, and to fulfill user needs to nearby Ponderosa High School. The site is intended to hand-off to existing Greenstone site (northeast), Mother Lode site (southeast), and Cameron Park Site (southwest). The area served by the site is experiencing capacity loss due to increased uses that are enhanced with 4G operational attributes, which have capabilities beyond phone usage to document downloads, internet browsing, and data storage. The new facility is required to overcome the signal loss in the area.

Project Description

In accordance with Section 130.14.210(D)(5a) of the County of El Dorado Code of Ordinances (New Towers and Monopoles) and applicable standards under Section 130.14.210.E-J, this special use permit request would allow the construction of a wireless telecommunications facility consisting of a 70-foot monopine tower, six antennas with nine remote radio heads and two surge protectors mounted at 62-feet, an 11-foot 6-inch by 16-foot 10.5-inch equipment shelter, a 30kw standby diesel generator on a 7- by 13-foot concrete pad, all within a 30- by 30-foot lease area enclosed with a 6-foot chain link fence with tan slats and two rows of barbed wire on top. The wireless facility has been designed as a monopine with foliage that seeks to match the existing surrounding vegetation and would be painted to simulate a natural brown bark. The antennas are proposed be mounted at 62 feet and covered with pine needle socks. The top of the pole would be 65 feet above ground level with foliage extending another five feet to an overall structure height of 70 feet. The facility has been designed to accommodate future co-location by other carriers.

Access to the site would be provide by a 15-foot wide, approximately 550-foot long non-exclusive Verizon Wireless access and utilities easement containing the existing gravel driveway taking access off Ponderosa Road. The access road terminates at the proposed facility with a hammerhead design to accommodate vehicular turnaround. An additional non-exclusive 6-foot utility easement extends from the lease area to an existing utility pole approximately 98 feet northeast. The site would also utilize an underground connection fiber connection located along Ponderosa Road. A number of oak trees and other vegetation are located along the road and adjacent to the proposed lease area in the western and norther portions of the site. However, no trees are proposed for removal as part of the wireless facility construction or operation.

Project Location and Surrounding Land Uses

The project site is located in the Shingle Springs Community Region. Residential land uses, vacant residential land, and Ponderosa High School surround the project site.

Project Characteristics

1. Transportation/Circulation/Parking

Access to the shelter and tower would be provide by a 15-foot wide, approximately 550-foot long non-exclusive Verizon Wireless access and utilities easement containing the existing gravel driveway taking access off Ponderosa Road. The access road terminates at the proposed facility with a hammerhead design to accommodate vehicular turnaround. The site would not include a parking space.

2. Utilities and Infrastructure

Verizon Wireless proposes to utilize current feeds from an existing utility pole approximately 98 feet northeast of the lease area through a non-exclusive 6-foot utility easement. The site would also utilize an underground fiber connection located along Ponderosa Road. The connections would be made underground via boring, as possible, to reduce the need for trenching. No other utilities would be required to operate the site.

3. Construction Considerations

Minor lease area site construction, grading, and extension of existing utilities will be required for the project. Grading would include interior site preparation including surface grading, tower and equipment foundations and concrete flooring, and overall site surfacing preparation. An approximately 550-foot gravel driveway will be improved to meet emergency access standards. The utilities will be installed within the proposed utility easements. All of these activities will take approximately 45 days. Verizon Wireless will have personnel on site daily during this construction period.

Project Schedule and Approvals

This Initial Study is being circulated for public and agency review for a 30-day period. Written comments on the Initial Study should be submitted to the project planner indicated in the Summary section, above. Following the close of the written comment period, the Initial Study will be considered by the Lead Agency in a public meeting and will be certified if it is determined to be in compliance with CEQA. The Lead Agency will also determine whether to approve the project.

EVALUATION OF ENVIRONMENTAL IMPACTS

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

ENVIRONMENTAL IMPACTS

I. AESTHETICS. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			X	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c. Substantially degrade the existing visual character quality of the site and its surroundings?			X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal regulations are applicable to aesthetics in relation to the Proposed Project.

State Laws, Regulations, and Policies

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, to preserve and enhance the natural beauty of California (Caltrans, 2015). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways.

There are no officially designated state scenic corridors in the vicinity of the project site.

Local Laws, Regulations, and Policies

The County has several standards and ordinances that address issues relating to visual resources. Many of these can be found in the County Zoning Ordinance (Title 130 of the County Code). The Zoning Ordinance consists of descriptions of the zoning districts, including identification of uses allowed by right or requiring a special-use permit and specific development standards that apply in particular districts based on parcel size and land use density. These development standards often involve limits on the allowable size of structures, required setbacks, and design guidelines. Included are requirements for setbacks and allowable exceptions, the location of public utility distribution and transmission lines, architectural supervision of structures facing a state highway, height limitations on structures and fences, outdoor lighting, and wireless communication facilities.

Discussion: A substantial adverse effect to Visual Resources would result in the introduction of physical features that are not characteristic of the surrounding development, substantially change the natural landscape, or obstruct an identified public scenic vista.

- a. **Scenic Vista:** The project site is located in the Shingle Springs Community Region surrounded by vacant residential land uses, vacant residential lands, and Ponderosa High School. No scenic vistas, as designated by the County

General Plan, are located in the vicinity of the site (El Dorado County, 2003, p. 5.3-3 through 5.3-5). However, views from the surrounding roads or residences to the site could be considered scenic vistas. The proposed stealth components of the project would camouflage the tower and appear to be a pine tree from areas with a direct line-of-site to the facility. Other views of the area would be unobstructed by the facility and surrounding trees in the area would block the view of the monopine from certain vantage points. Similarly, the ground equipment lease area would be blocked from view and fenced, and would therefore have no impacts on any official or unofficial scenic vistas. The impact would be less than significant.

- b. **Scenic Resources:** The project site is not visible from an officially designated State Scenic Highway or county-designated scenic highway, or any roadway that is part of a corridor protection program (CalTrans, 2013). There are no views of the site from public parks or scenic vistas. Though there are many trees in the project vicinity, there are no trees or historic buildings that have been identified by the County as contributing to exceptional aesthetic value at the project site. The impact would be less than significant.
- c. **Visual Character:** The proposed fencing and ground equipment is unlikely to be visible from some surrounding areas, but may be visible from individuals traveling south to north on Ponderosa road and along Meder Road. The proposed outdoor equipment cabinets would be located at the base of the tower within the fenced 30- by 30-foot lease area. The site plans and photo simulations show the tower and ground equipment to be designed to meet the wireless communications facilities standards of Zoning Ordinance Section 130.14.210.

The tower itself would be visible from some points in the surrounding area, including the residential areas to the southwest and residential areas and Ponderosa High School to the east and southeast. The tower is designed as a monopine to camouflage the facility components and to blend in with the surrounding landscape. The antennas would be covered with false pine tree branches, pine needle socks would be placed over the antennas and microwave dishes, and the tower pole would be painted to resemble a pine tree. The fencing surrounding the lease area is also designed to blend with the visual character of the area. With these design features, the facility will not degrade the existing visual character and quality of the site and its surroundings. The impacts to visual character would be less than significant.

- d. **Light and Glare:** The proposed project includes only one hooded and downward tilting security light and all components of the facility would be constructed from non-reflective materials. The project has been conditioned to ensure that lights are compliant with Section 130.14.170 of the Zoning Ordinance, and be required to be fully shielded. Therefore, the impacts to aesthetics due to light and glare would be less than significant.

FINDING: As conditioned and with adherence to El Dorado County Code of Ordinances (County Code), for this “Aesthetics” category, impacts would be less than significant.

II. AGRICULTURE AND FOREST 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 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	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Locally Important Farmland (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?			X	
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?			X	
d. Result in the loss of forest land or conversion of forest land to non-forest use?			X	
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal regulations are applicable to agricultural and forestry resources in relation to the Proposed Project.

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP), administered by the California Department of Conservation (CDC), produces maps and statistical data for use in analyzing impacts on California's agricultural resources (CDC 2008). FMMP rates and classifies agricultural land according to soil quality, irrigation status, and other criteria. Important Farmland categories are as follows (CDC 2013a):

Prime Farmland: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agricultural production at some time during the 4 years before the FMMP's mapping date.

Farmland of Statewide Importance: Farmland similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Farmland of Statewide Importance must have been used for irrigated agricultural production at some time during the 4 years before the FMMP's mapping date.

Unique Farmland: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. These lands are usually irrigated but might include non-irrigated orchards or vineyards, as found in some climatic zones. Unique Farmland must have been cropped at some time during the 4 years before the FMMP's mapping date.

Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) allows local governments to enter into contracts with private landowners for the purpose of preventing conversion of agricultural land to non-agricultural uses (CDC 2013b). In exchange for restricting their property to agricultural or related open space use, landowners who enroll in Williamson Act contracts receive property tax assessments that are substantially lower than the market rate.

Z'berg-Nejedly Forest Practice Act

Logging on private and corporate land in California is regulated by the 1973 Z'berg-Nejedly Forest Practice Act. This Act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. The California Department of Forestry (CALFIRE) works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs.

Discussion: A substantial adverse effect to Agricultural Resources would occur if:

- There is a conversion of choice agricultural land to nonagricultural use, or impairment of the agricultural productivity of agricultural land;
 - The amount of agricultural land in the County is substantially reduced; or
 - Agricultural uses are subjected to impacts from adjacent incompatible land uses.
- a-b. **Conversion of Agricultural Land:** The site is not located within an area designated for agriculture, an agricultural zone, or an Agricultural District. Review of the soil data for El Dorado County developed under the Farmland Mapping and Monitoring Program indicates that the project lease area site contains Rescue very stony sandy loam, 3 to 15 percent slopes (RfC) on the northern portion of the site; Argonaut clay loam, 3 to 9 percent slopes (AnB) on the central portion of the site; Rescue sandy loam, 2 to 9 percent slopes (ReB) on the southern portion of the site; and a small portion of Placer Diggings (PrD) on the southwest corner. The site contains soil types identified as soils of local importance. However, the project would result in a relatively small footprint of a 30- by 30- lease area and hammerhead turn around in the northwest corner of the site via an existing gravel driveway. The construction and use of the proposed unmanned facility would not result in a substantial conversion of agricultural land. Wireless communication facilities are permitted in all zone districts, subject to the applicable standards and permitting requirements, so the project would not conflict with existing zoning regulations for agricultural use. The property is not within an area that is under Williamson Act Contract and would not affect any properties under a Williamson Act Contract. Impacts would be less than significant.
- c-e. **Loss of Forest land or Conversion of Forest land:** The site is not designated as Timberland Preserve Zone (TPZ) or other forestland according to the General Plan and Zoning Ordinance. No trees are proposed for removal as part of the project. As discussed in section a-b above, the project site contains soils identified as Farmland of Local Importance. However, the proposed project activities and scale are such that there would be no change to the existing environment that would result in the conversion of farmland, agricultural land, or forestland. Impacts would be less than significant.

FINDING: For this "Agriculture" category, the thresholds of significance have not been exceeded and the impacts would be anticipated to be less than significant.

III. AIR QUALITY. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c. 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d. Expose sensitive receptors to substantial pollutant concentrations?			X	
e. Create objectionable odors affecting a substantial number of people?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of 10 micrometers or less (PM10), particulate matter of aerodynamic radius of 2.5 micrometers or less (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO2), ground-level ozone, and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health.

State Laws, Regulations, and Policies

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the NAAQS and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The Proposed Project is located within the Mountain Counties Air Basin, which is comprised of seven air districts: the Northern Sierra Air Quality Management District (AQMD), Placer County Air Pollution Control District (APCD), Amador County APCD, Calaveras County APCD, the Tuolumne County APCD, the Mariposa County APCD, and a portion of the El Dorado County AQMD, which consists of the western portion of El Dorado County. The El Dorado County Air Pollution Control District manages air quality for attainment and permitting purposes within the west slope portion of El Dorado County.

USEPA and CARB regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications.

Air quality in the project area is regulated by the El Dorado County Air Quality Management District. California Air Resources Board and local air districts are responsible for overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required to comply with CEQA. The AQMD regulates air quality

through the federal and state Clean Air Acts, district rules, and its permit authority. National and state ambient air quality standards (AAQS) have been adopted by the Environmental Protection Agency and State of California, respectively, for each criteria pollutant: ozone, particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide.

The Environmental Protection Agency and State also designate regions as “attainment” (within standards) or “nonattainment” (exceeds standards) based on the ambient air quality. The County is in nonattainment status for both federal and state ozone standards and for the state PM10 standard, and is in attainment or unclassified status for other pollutants (California Air Resources Board 2013). County thresholds are included in the chart below.

Criteria Pollutant	El Dorado County Threshold	
Reactive Organic Gasses (ROG)	82 lbs/day	
Nitrogen Oxides (NOx)	82 lbs/day	
Carbon Monoxide (CO)	8-hour average: 6 parts per million (ppm)	1-hour average: 20 ppm
Particulate Matter (PM10):	Annual geometric mean: 30 µg/m3	24-hour average: 50 µg/m3
Particulate Matter (PM2.5):	Annual arithmetic mean: 15 µg/m3	24-hour average: 65 µg/m3
Ozone	8-hour average: 0.12 ppm	1-hour average: .09

The guide includes a Table (Table 5.2) listing project types with potentially significant emissions. ROG and NOx Emissions may be assumed to not be significant if:

- The project encompasses 12 acres or less of ground that is being worked at one time during construction;
- At least one of the recommended mitigation measures related to such pollutants is incorporated into the construction of the project;
- The project proponent commits to pay mitigation fees in accordance with the provisions of an established mitigation fee program in the district (or such program in another air pollution control district that is acceptable to District); or
- Daily average fuel use is less than 337 gallons per day for equipment from 1995 or earlier, or 402 gallons per day for equipment from 1996 or later

If the project meets one of the conditions above, APCD assumed that exhaust emissions of other air pollutants from the operation of equipment and vehicles are also not significant.

For Fugitive dust (PM10), if dust suppression measures will prevent visible emissions beyond the boundaries of the project, further calculations to determine PM emissions are not necessary. For the other criteria pollutants, including CO, PM10, SO2, NO2, sulfates, lead, and H2S, a project is considered to have a significant impact on air quality if it will cause or contribute significantly to a violation of the applicable national or state ambient air quality standard(s).

Naturally occurring asbestos (NOA) is also a concern in El Dorado County because it is known to be present in certain soils and can pose a health risk if released into the air. The AQMD has adopted an El Dorado County Naturally Occurring Asbestos Review Area Map that identifies those areas more likely to contain NOA (El Dorado County 2005).

Discussion: According to the El Dorado County Air Quality Management District (AQMD) Guide to Air Quality Assessment (2002) substantial adverse effect on air quality would occur if:

- Emissions of ROG and No_x will result in construction or operation emissions greater than 82lbs/day (Table 3.2);
- Emissions of PM₁₀, CO, SO₂ and No_x, as a result of construction or operation emissions, will result in ambient pollutant concentrations in excess of the applicable National or State Ambient Air Quality Standard (AAQS). Special standards for ozone, CO, and visibility apply in the Lake Tahoe Air Basin portion of the County; or
- Emissions of toxic air contaminants cause cancer risk greater than 1 in 1 million (10 in 1 million if best available control technology for toxics is used) or a non-cancer Hazard Index greater than 1. In addition, the project must demonstrate compliance with all applicable District, State and U.S. EPA regulations governing toxic and hazardous emissions.

- a. **Air Quality Plan:** El Dorado County has adopted the Rules and Regulations of the El Dorado County Air Quality Management District (2000) establishing rules and standards for the reduction of stationary source air pollutants (ROG/VOC, NOx, and O3). The project would create air quality impacts that may contribute to an existing or projected air quality violation during construction. Construction activities associated with the project include grading and site improvements for utilities, driveway, mono-pine installation, graveling, and associated on-site activities. According to the APCD CEQA Guide, common construction activities generate emissions from the use of combustion engines (ROG, NOx, CO, Sox, PM10) from mobile heavy-duty diesel and gasoline-powered equipment, and worker commuter trips; fugitive dust (PM10) from soil disturbance or demolition; and evaporative emissions (ROG) from asphalt paving and agricultural coating applications. These activities would create short-term increases in particulate matter (PM10 and PM2.5) and would generate both reactive organic compounds (ROG) and nitrogen oxide (NOx) emissions from vehicle and equipment operation. However, the area of disturbance for this project encompasses far less than twelve acres. The site is located in an area of naturally-occurring asbestos and the AQMD rules would apply to this project, including Rule 223 and 223.2, which regulates asbestos dust in general and during construction, to ensure that any construction related PM10 dust emissions would be reduced to acceptable levels. The temporary increase in air pollutant emissions associated with construction activities could result in contributions to cumulative pollutant levels in the region, however, compliance with standard conditions and building permit requirements would ensure that impacts are less than significant. Therefore, the potential impacts of the project would be less than significant.
- b, c. **Air Quality Standards and Cumulative Impacts:** As discussed above, the project will not result in any emissions of criteria pollutants that exceed the thresholds of significance, as determined by the APCD CEQA Guide. Additionally, El Dorado County AQMD reviewed the application materials for this project and determined that by implementing typical conditions including Rule 223 and 223.2 regarding asbestos dust, Rule 215 regarding the application of architectural coatings, and Rule 224 regarding cutback and emulsified asphalt paving materials, the project would have a less than significant impact in this category. The conditions would be implemented, reviewed, and approved by the AQMD prior to and in concurrence with the grading and building permit. Impacts would be less than significant.
- d. **Sensitive Receptors:** The CEQA Guidelines (14 CCR 15000) identify sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others that are especially sensitive to the effects of air pollutants. Hospitals, schools, and convalescent hospitals are examples of sensitive receptors. No sources of substantial pollutant concentrations will be emitted by the cell tower facility. Though not considered a sensitive receptor, Ponderosa High School is located approximately 1,340 feet southeast of the proposed facility. However, construction activities would be temporary, and compliance with AQMD Rules would also ensure asbestos dust from construction activities remains within the project area or within 50 feet of disturbed areas. Impacts would be less than significant.
- e. **Objectionable Odors:** Construction may involve the use of gasoline or diesel-powered equipment that emits exhaust fumes. These activities would take place intermittently throughout the construction process, and persons near the construction work area may find these odors objectionable. However, the associated odors would dissipate within the immediate vicinity of the work area. The project is an area with a mix of low- and medium-density residential uses and in the vicinity of an existing high school. Table 3-1 of the Guide to Air Quality Assessment (AQMD, 2002) does not list the proposed cellular communications facility use as a use known to create objectionable odors. The infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would result in less than significant odor impacts.

FINDING: The proposed project would not affect the implementation of regional air quality regulations or management plans. The project would result in small increases in emissions due to construction and operation; however, existing regulations would reduce these impacts to a less-than-significant level. For this “Air Quality” category, as conditioned and with adherence to County Code, the proposed project would not be anticipated to cause substantial adverse effects to air quality, nor exceed established significance thresholds for air quality impacts.

IV. BIOLOGICAL RESOURCES. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	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?			X	
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] Section 1531 *et seq.*; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the “take” of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 USC Section 1532). Section 7 of the ESA (16 USC Section 1531 *et seq.*) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in “take” of endangered or threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) protects migratory birds. Most actions that result in take, or the permanent or temporary possession of, a migratory bird constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. USFWS is responsible for overseeing compliance with the MBTA.

Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), first enacted in 1940, prohibits "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The definition for "Disturb" includes injury to an eagle, a decrease in its productivity, or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present.

Clean Water Act

Clean Water Act (CWA) section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

State Laws, Regulations, and Policies

California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA). The NPPA (California Fish and Game Code Section 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA (California Fish and Game Code Section 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code Section 3503, 3513, and 3800 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, Section 3511, 4700, 5050, and 5515 identify species that are fully

protected from all forms of take. Section 3511 lists fully protected birds, Section 5515 lists fully protected fish, Section 4700 lists fully protected mammals, and Section 5050 lists fully protected amphibians.

Streambed Alteration Agreement

Sections 1601 to 1606 of the California Fish and Game Code require that a Streambed Alteration Application be submitted to CDFW for any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Section 1900–1913) prohibits the taking, possessing, or sale of any plants with a state designation of rare, threatened, or endangered (as defined by CDFW). The California Native Plant Society (CNPS) maintains a list of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (CNPS 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

Forest Practice Act

Logging on private and corporate land in California is regulated by the Z'Berg-Nejedly Forest Practices Act (FPA), which took effect January 1, 1974. The act established the Forest Practice Rules (FPRs) and a politically-appointed Board of Forestry to oversee their implementation. The California Department of Forestry (CALFIRE) works under the direction of the Board of Forestry and is the lead government agency responsible for approving logging plans and for enforcing the FPRs. A Timber Harvest Plan (THP) must be prepared by a Registered Professional Forester (RPF) for timber harvest on virtually all non-federal land. The FPA also established the requirement that all non-federal forests cut in the State be regenerated with at least three hundred stems per acre on high site lands, and one hundred fifty trees per acre on low site lands.

Local Laws, Regulations, and Policies

The County General Plan also include policies that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that address potential impacts on special-status plant species or create opportunities for habitat improvement. The El Dorado County General Plan designates the Important Biological Corridor (IBC) (Exhibits 5.12-14, 5.12-5 and 5.12-7, El Dorado County, 2003). Lands located within the overlay district are subject to the following provisions, given that they do not interfere with agricultural practices:

- Increased minimum parcel size;
- Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;
- Lower thresholds for grading permits;
- Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;
- Increased riparian corridor and wetland setbacks;
- Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Wildlife);
- Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;
- Building permits discretionary or some other type of “site review” to ensure that canopy is retained;
- More stringent standards for lot coverage, floor area ratio (FAR), and building height; and
- No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).

Discussion: A substantial adverse effect on Biological Resources would occur if the implementation of the project would:

- Substantially reduce or diminish habitat for native fish, wildlife or plants;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a native plant or animal community;

- Reduce the number or restrict the range of a rare or endangered plant or animal;
- Substantially affect a rare or endangered species of animal or plant or the habitat of the species; or
- Interfere substantially with the movement of any resident or migratory fish or wildlife species.

Special Status Species and Sensitive Natural Communities: Review of the County Geographic Information System (GIS) soil data demonstrates the project site is located on lands shown to contain Serpentine Rock or Gabbro soils that contain certain rare plants. The project site is not located within a Rare Plant Mitigation area. The project is not located within a sensitive natural community of the county, state, or federal agency, including but not limited to an Ecological Preserve or U.S. Fish and Wildlife Service (USFWS) Recovery Plan boundaries. A natural resource review of the site was conducted by a professional biologist, and findings and conclusions were submitted in a report dated May 7, 2015 (Maguire, 2015; Attachment 3). According to the report, seven federally-listed (endangered or threatened) identified by USFWS are known in the project vicinity and two state protected species identified by the California Department of Fish and Wildlife (CDFW) are known to occur within the USGS 24k Quad: Shingle Springs, CA 1976. The special-status species reported by the California Natural Diversity Database (CNDDB) to occur in two miles of the site included four federally protected species. All potentially impacted species were further assessed for their likelihood to occur within the Project Area. The report concluded that the proposed project would be anticipated to have a “no effect” on listed protected species or critical habitats, is not within the boundary of, or within one mile of federally-protected lands (wildfire preserves, wilderness areas, etc.). The study considers potential impacts of the construction and ongoing operation of the proposed facility on species protected under the Migratory Bird Treaty Act and Endangered Species Act and concludes that the 70-foot monopine tower with no lighting meets most of the USFWS tower siting and design recommendations and is therefore not anticipated to adversely affect migratory birds. Impacts are anticipated to be less than significant.

- b, c. **Riparian Habitat, Wetlands, Potentially Jurisdictional Waters of the U.S.:** A natural resource review of the site was conducted by a professional biologist, and findings and conclusions were submitted in a report dated May 7, 2015 (Maguire, 2015; Attachment 3). According to the report, no readily-identifiable wetlands or wetland characteristics were observed. The site contains no water features and no waters of the U.S. or waters of the State. No wetland features as defined by the U.S. Army Corps of Engineers have been found within the project parcel. No significant impacts to wetlands or riparian habitat are anticipated by the construction and operation of the wireless communications facility at the site. There would be no impacts.
- d. **Migration Corridors:** The 30- by 30-foot lease area would not impact any established migration corridors. Impacts would be anticipated to be less than significant.
- e. **Local Biological Resources Policies:** Local protection of biological resources includes protection of rare plants, avoidance of riparian areas, and mitigation of impacted oak woodlands. The 30- x 30- foot lease area is not located adjacent to any riparian areas and does not include any areas of rare plants. Construction would require trenching within the utilities lease area and boring within the utilities easement. According to policy 7.4.4.4 of the general plan, all new development projects that would result in soil disturbance on parcels that are over an acre and have at least 1 percent total canopy cover, shall adhere to the tree canopy retention and replacement standards. No protected oak or other trees are proposed for removal. Impacts would be anticipated to be less than significant.
- f. **Adopted Plans:** This project, as designed, does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

FINDING: This site is not located within the USFWS Recovery Plan boundaries. The project proposes a relatively small footprint of impact and no significant impacts to biological resources beyond the pre-project levels would be anticipated. Impacts would be anticipated to be less than significant.

V. CULTURAL RESOURCES. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			X	
b. Cause a substantial adverse change in the significance of archaeological resource pursuant to Section 15064.5?			X	
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d. Disturb any human remains, including those interred outside of formal cemeteries?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

The National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The criteria for listing in the NRHP include resources that:

- A. Are associated with events that have made a significant contribution to the broad patterns of history (events);
- B. Are associated with the lives of persons significant in our past (persons);
- C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction (architecture); or
- D. Have yielded or may likely yield information important in prehistory or history (information potential).

State Laws, Regulations, and Policies

California Register of Historical Resources

Public Resources Code Section 5024.1 establishes the California Register of Historical Resources (CRHR). The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the National Historic Preservation Act. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

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

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

The California Register of Historic Places

The California Register of Historic Places (CRHP) program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act. The criteria for listing in the CRHP include resources that:

- A. Are associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- B. Are associated with the lives of persons important to local, California or national history.
- C. Embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
- D. Have yielded, or have the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The State Office of Historic Preservation sponsors the California Historical Resources Information System (CHRIS), a statewide system for managing information on the full range of historical resources identified in California. CHRIS provides an integrated database of site-specific archaeological and historical resources information. The State Office of Historic Preservation also maintains the CRHR, which identifies the State's architectural, historical, archeological and cultural resources. The CRHR includes properties listed in or formally determined eligible for the National Register and lists selected California Registered Historical Landmarks.

Public Resources Code (Section 5024.1[B]) states that any agency proposing a project that could potentially impact a resource listed on the CRHR must first notify the State Historic Preservation Officer, and must work with the officer to ensure that the project incorporates "prudent and feasible measures that will eliminate or mitigate the adverse effects."

California Health and Safety Code Section 7050.5 requires that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Section 5097.98 of the California Public Resources Code stipulates that whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The decedents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CEQA and CEQA Guidelines

Section 21083.2 of CEQA requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or

- Is directly associated with a scientifically recognized important prehistoric or historic event or person.
- Although not specifically inclusive of paleontological resources, these criteria may also help to define “a unique paleontological resource or site.”

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are also provided under CEQA Section 21083.2.

Section 15064.5 of the CEQA Guidelines notes that “a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Substantial adverse changes include physical changes to the historic resource or to its immediate surroundings, such that the significance of the historic resource would be materially impaired. Lead agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of an historic resource before they approve such projects. Historic resources are those that are:

- listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code Section 5024.1[k]);
- included in a local register of historic resources (Public Resources Code Section 5020.1) or identified as significant in an historic resource survey meeting the requirements of Public Resources Code Section 5024.1(g); or
- determined by a lead agency to be historically significant.

CEQA Guidelines Section 15064.5 also prescribes the processes and procedures found under Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.95 for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project site. This includes consultation with the appropriate Native American tribes.

CEQA Guidelines Section 15126.4 provides further guidance about minimizing effects to historical resources through the application of mitigation measures. Mitigation measures must be legally binding and fully enforceable.

The lead agency having jurisdiction over a project is also responsible to ensure that paleontological resources are protected in compliance with CEQA and other applicable statutes. Paleontological and historical resource management is also addressed in Public Resources Code Section 5097.5, “Archaeological, Paleontological, and Historical Sites.” This statute defines as a misdemeanor any unauthorized disturbance or removal of a fossil site or remains on public land and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources. This statute would apply to any construction or other related project impacts that would occur on state-owned or state-managed lands. The County General Plan contains policies describing specific, enforceable measures to protect cultural resources and the treatment of resources when found.

Discussion: In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a historical or cultural resource significant or important. A substantial adverse effect on Cultural Resources would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a prehistoric or historic archaeological site or property that is historically or cultural significant to a community or ethnic or social group; or a paleontological site except as a part of a scientific study;
- Affect a landmark of cultural/historical importance;
- Conflict with established recreational, educational, religious or scientific uses of the area; or
- Conflict with adopted environmental plans and goals of the community where it is located.

a-c. **Archaeological Resource, Historic Resource, Paleontological Resource:** An archaeological survey report for the site was conducted by a professional archaeologist (Etheridge, 2015). The report concludes that the project site is not sensitive for the presence of significant prehistoric and/or historic-era cultural resources due to the unfavorable environmental setting and negative results of the pedestrian survey. It also concludes that it is unlikely that the project area is sensitive for subsurface archaeological resources. Standard conditions of approval are included for this project to protect historical, cultural, or archeological sites, buildings, or materials in the event that such

materials are discovered during earth disturbances and grading activities on the site. Impacts are anticipated to be less than significant.

- d. **Human Remains:** There is a low likelihood of human remains discovery on the project site. Standard conditions of approval would apply during all grading activities to address accidental discovery of human remains. Impacts would be less than significant.

FINDING: No significant cultural resources have been identified on the project site. Standard conditions of approval would apply in the event of accidental discovery during project construction. This project would be anticipated to have a less than significant impact within the “Cultural Resources” category.

VI. GEOLOGY AND SOILS. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Expose people or structures to 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.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk-reduction program to better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: USGS, National Science Foundation (NSF), Federal Emergency Management Agency

(FEMA), and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives (NEHRP 2009) are to:

1. Develop effective measures to reduce earthquake hazards;
2. Promote the adoption of earthquake hazard reduction activities by federal, state, and local governments; national building standards and model building code organizations; engineers; architects; building owners; and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or “lifelines”;
3. Improve the basic understanding of earthquakes and their effects on people and infrastructure through interdisciplinary research involving engineering; natural sciences; and social, economic, and decision sciences; and
4. Develop and maintain the USGS seismic monitoring system (Advanced National Seismic System); the NSF-funded project aimed at improving materials, designs, and construction techniques (George E. Brown Jr. Network for Earthquake Engineering Simulation); and the global earthquake monitoring network (Global Seismic Network).

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

State Laws, Regulations, and Policies

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 *et seq.*) was passed to reduce the risk to life and property from surface faulting in California. The Alquist–Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as “active,” and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist–Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are “sufficiently active” and “well defined.” Before a project can be permitted, cities and counties are required to have a geologic investigation conducted to demonstrate that the proposed buildings would not be constructed across active faults.

Historical seismic activity and fault and seismic hazards mapping in the project vicinity indicate that the area has relatively low potential for seismic activity (El Dorado County 2003). No active faults have been mapped in the project area, and none of the known faults have been designated as an Alquist–Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist–Priolo Act addresses surface fault rupture, the SHMA addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist–Priolo Act. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability.

Mapping and other information generated pursuant to the SHMA is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. Under the SHMA, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

Title 24 CCR, also known as the California Building Standards Code (CBC), specifies standards for geologic and seismic hazards other than surface faulting. These codes are administered and updated by the California Building Standards Commission. CBC specifies criteria for open excavation, seismic design, and load-bearing capacity directly related to construction in California.

Discussion: A substantial adverse effect on Geologic Resources would occur if the implementation of the project would:

- Allow substantial development of structures or features in areas susceptible to seismically induced hazards such as groundshaking, liquefaction, seiche, and/or slope failure where the risk to people and property resulting from earthquakes could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards;
 - Allow substantial development in areas subject to landslides, slope failure, erosion, subsidence, settlement, and/or expansive soils where the risk to people and property resulting from such geologic hazards could not be reduced through engineering and construction measures in accordance with regulations, codes, and professional standards; or
 - Allow substantial grading and construction activities in areas of known soil instability, steep slopes, or shallow depth to bedrock where such activities could result in accelerated erosion and sedimentation or exposure of people, property, and/or wildlife to hazardous conditions (e.g., blasting) that could not be mitigated through engineering and construction measures in accordance with regulations, codes, and professional standards.
- a. **Seismic Hazards:**
- i) According to the California Department of Conservation Division of Mines and Geology, there are no Alquist-Priolo fault zones within El Dorado County (DOC, 2007). The nearest such faults are located in Alpine and Butte Counties. There would be no impact.
 - ii) The potential for seismic ground shaking in the project area would be considered remote for the reason stated in Section i) above. Any potential impacts due to seismic impacts would be addressed through compliance with the Uniform Building Code (UBC). All structures would be built to meet the construction standards of the UBC for the appropriate seismic zone. Impacts would be less than significant.
 - iii) El Dorado County is considered an area with low potential for seismic activity. There are no landslide, liquefaction, or fault zones (DOC, 2007). There would be no impact.
 - iv) All grading activities onsite would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. There would be no impact.
- b. **Soil Erosion:** The site contains Rescue very stony sandy loam, 3 to 15 percent slopes (RfC) soils in the area proposed for the lease area and tower. This soil type has a slow to medium surface runoff and a slight to moderate erosion hazard (USDA, 1974). There would be the potential for erosion, changes in topography, and unstable soil conditions. The extent of the potential for soil erosion would be addressed during the grading permit process. All grading activities exceeding 250 cubic yards of graded material or grading completed for the purpose of supporting a structure must meet the provisions contained in the Grading, Erosion, and Sediment Control, County Code Chapter 110.14. This ordinance is designed to limit erosion, control the loss of topsoil and sediment, limit surface runoff, and ensure stable soil and site conditions for the intended use in compliance with the El Dorado County General Plan. All grading activities onsite would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance including the implementation of pre- and post-construction Best Management Practices (BMPs). Impacts would be less than significant.
- c. **Geologic Hazards:** Based on the Seismic Hazards Mapping Program administered by the California Geological Survey, no portion of El Dorado County is located in a Seismic Hazard Zone, or those areas prone to liquefaction and earthquake-induced landslides (DOC, 2013). Therefore, El Dorado County is not considered to be at risk from liquefaction hazards. Lateral spreading is typically associated with areas experiencing liquefaction. Because liquefaction hazards are not present in El Dorado County, the county is not at risk for lateral spreading. All grading

activities would comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.

- d. **Expansive Soils:** Expansive soils are those that greatly increase in volume when they absorb water and shrink when they dry out. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. This movement may result in cracking foundations, distortion of structures, and warping of doors and windows. The central portion of the county has a moderate expansiveness rating while the eastern and western portions have a low rating. Linear extensibility is used to determine the shrink-swell potential of soils. Pursuant to the Soil Report for El Dorado County, Musick sandy loam, 15 to 30 percent slopes soils are reported to have shrink-swell potential of low to high, depending on the depth (USDA, 1974). No structures for human occupancy would be constructed as part of the proposed project. Prior to construction, a grading plan will be required to be approved in accordance with the El Dorado County Grading, Erosion Control and Sediment Ordinance. Impacts would be less than significant.
- e. **Septic Capability:** The project would not require the use or installation of a septic system. There would be no impact.

FINDING: A review of the soils and geologic conditions on the project site determined that the project would not result in a substantial adverse effect. All grading activities would be required to comply with the El Dorado County Grading, Erosion Control and Sediment Ordinance which would address potential impacts related to soil erosion, landslides and other geologic impacts. Future development would be required to comply with the UBC which would address potential seismic related impacts. For this “Geology and Soils” category, impacts would be less than significant.

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

Background/Science

Cumulative greenhouse gases (GHG) emissions are believed to contribute to an increased greenhouse effect and global climate change, which may result in sea level rise, changes in precipitation, habitat, temperature, wildfires, air pollution levels, and changes in the frequency and intensity of weather-related events. While criteria pollutants and toxic air contaminants are pollutants of regional and local concern (see Section III. Air Quality above); GHG are global pollutants. The primary land-use related GHG are carbon dioxide (CO₂), methane (CH₄) and nitrous oxides (N₂O). The individual pollutant's ability to retain infrared radiation represents its “global warming potential” and is expressed in terms of CO₂ equivalents; therefore CO₂ is the benchmark having a global warming potential of 1. Methane has a global warming potential of 21 and thus has a 21 times greater global warming effect per metric ton of CH₄ than CO₂. Nitrous Oxide has a global warming potential of 310. Emissions are expressed in annual metric tons of CO₂ equivalent units of measure (i.e., MTCO₂e/yr). The three other main GHG are Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. While these compounds have significantly higher global warming potentials (ranging in the thousands), all three typically are not a concern in land-use development projects and are usually only used in specific industrial processes.

GHG Sources

The primary man-made source of CO₂ is the burning of fossil fuels; the two largest sources being coal burning to produce electricity and petroleum burning in combustion engines. The primary sources of man-made CH₄ are natural gas systems losses (during production, processing, storage, transmission and distribution), enteric fermentation (digestion from livestock) and landfill off-gassing. The primary source of man-made N₂O is agricultural soil management (fertilizers), with fossil fuel combustion a very distant second. In El Dorado County, the primary source of GHG is fossil fuel combustion mainly in the transportation sector (estimated at 70% of countywide GHG emissions). A distant second are residential sources (approximately 20%), and commercial/industrial sources are third (approximately 7%). The remaining sources are waste/landfill (approximately 3%) and agricultural (<1%).

Regulatory Setting:

Federal Laws, Regulations, and Policies

At the federal level, USEPA has developed regulations to reduce GHG emissions from motor vehicles and has developed permitting requirements for large stationary emitters of GHGs. On April 1, 2010, USEPA and the National Highway Traffic Safety Administration (NHTSA) established a program to reduce GHG emissions and improve fuel economy standards for new model year 2012-2016 cars and light trucks. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses.

Federal Laws, Regulations, and Policies

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the *California Climate Solutions Act of 2006* (Stats. 2006, ch. 488) (Health & Safety Code, Section 38500 et seq.). AB 32 requires a statewide GHG emissions reduction to 1990 levels by the year 2020. AB 32 requires the California Air Resources Board (CARB) to implement and enforce the statewide cap. When AB 32 was signed, California's annual GHG emissions were estimated at 600 million metric tons of CO₂ equivalent (MMTCO₂e) while 1990 levels were estimated at 427 MMTCO₂e. Setting 427 MMTCO₂e as the emissions target for 2020, current (2006) GHG emissions levels must be reduced by 29%. CARB adopted the AB 32 Scoping Plan in December 2008 establishing various actions the state would implement to achieve this reduction (CARB, 2008). The Scoping Plan recommends a community-wide GHG reduction goal for local governments of 15%.

In June 2008, the California Governor's Office of Planning and Research's (OPR) issued a Technical Advisory (OPR, 2008) providing interim guidance regarding a proposed project's GHG emissions and contribution to global climate change. In the absence of adopted local or statewide thresholds, OPR recommends the following approach for analyzing GHG emissions: Identify and quantify the project's GHG emissions, assess the significance of the impact on climate change; and if the impact is found to be significant, identify alternatives and/or Mitigation Measures that would reduce the impact to less than significant levels (CEC, 2006).

Discussion:

CEQA does not provide clear direction on addressing climate change. It requires lead agencies identify project GHG emissions impacts and their "significance," but is not clear what constitutes a "significant" impact. As stated above, GHG impacts are inherently cumulative, and since no single project could cause global climate change, the CEQA test is if impacts are "cumulatively considerable." Not all projects emitting GHG contribute significantly to climate change. CEQA authorizes reliance on previously approved plans (i.e., a Climate Action Plan (CAP), etc.) and mitigation programs adequately analyzing and mitigating GHG emissions to a less than significant level. "Tiering" from such a programmatic-level document is the preferred method to address GHG emissions. El Dorado County does not have an adopted CAP or similar program-level document; therefore, the project's GHG emissions must be addressed at the project-level.

Unlike thresholds of significance established for criteria air pollutants in EDCAQMD's Guide to Air Quality Assessment (February 2002) ("CEQA Guide"), the District has not adopted GHG emissions thresholds for land use development projects. In the absence of County adopted thresholds, EDCAQMD recommends using the adopted thresholds of other lead agencies which are based on consistency with the goals of AB 32. Since climate change is a global problem and the location of the individual source of GHG emissions is somewhat irrelevant, it's appropriate to use thresholds established by other

jurisdictions as a basis for impact significance determinations. Projects exceeding these thresholds would have a potentially significant impact and be required to mitigate those impacts to a less than significant level. Until the County adopts a CAP consistent with CEQA Guidelines Section 15183.5, and/or establishes GHG thresholds, the County will follow an interim approach to evaluating GHG emissions utilizing significance criteria adopted by the San Luis Obispo Air Pollution Control District (SLOAPCD) to determine the significance of GHG emissions.

SLOAPCD developed a screening table using CalEEMod which allows quick assessment of projects to “screen out” those below the thresholds as their impacts would be less than significant. These thresholds are summarized below:

Significance Determination Thresholds	
GHG Emission Source Category	Operational Emissions
Non-stationary Sources	1,150 MTCO ₂ e/yr OR 4.9 MT CO ₂ e/SP/yr
Stationary Sources	10,000 MTCO ₂ e/yr

SP = service population, which is resident population plus employee population of the project

Projects below screening levels identified in Table 1-1 of SLOAPCD’s CEQA Air Quality Handbook (pp. 1-3, SLOAPCD, 2012) are estimated to emit less than the applicable threshold. For projects below the threshold, no further GHG analysis is required.

- a. The proposed project would generate GHG emissions primarily a result of facility construction in the form of construction equipment exhaust. The proposed project anticipates a construction period of approximately 45 days. During this time, a small net increase in GHG emissions would result from various construction activities. Construction-related GHG emissions would be associated with engine exhaust from heavy-duty construction equipment, transport trucks hauling materials, and worker commute trips. Construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. After completion of construction, all construction emissions would cease. Operation of the facility would not require the use of water or require a substantial amount of electricity. The project would be required to incorporate modern construction and design features that reduce energy consumption to the extent feasible. Implementation of these features would help reduce potential GHG emissions resulting from the development of the proposed project. The project would generate some GHG emissions as a result of infrequent maintenance vehicle trips and back-up generator operations. According to the SLOAPCD Screening Table, the most accurate applicable screening level is 82,000 square feet for general light industry. The proposed project is a wireless telecommunications facility with a square footage of 900 square feet total lease area. Based on this equivalency, the GHG emissions from this project are estimated at less than 1,150 metric tons/year, thus, no further analysis for GHG emissions impact is required. Therefore, the proposed project would have a less than significant impact.
- b. Because construction-related emissions would be temporary and below the minimum standard for reporting requirements under AB 32, the proposed project’s GHG emissions would have a negligible cumulative contribution towards statewide and global GHG emissions. The proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant.

FINDING: The project would result in less than significant impacts to GHG emissions because of the project size and inclusion of design features to address the emissions of GHG. For this “Greenhouse Gas Emissions” category, there would be no significant adverse environmental effect as a result of the project.

VIII. HAZARDS AND HAZARDOUS MATERIALS. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

Regulatory Setting:

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety provisions for workers and the public. The major federal, state, and regional agencies enforcing these regulations are USEPA and the Occupational Safety and Health Administration (OSHA); California Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); and EDCAPCD.

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC Section 9601 *et seq.*) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties

responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the “Superfund”) for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 USC Section 6901 *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the “cradle-to-grave” regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in addition to California’s own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Energy Policy Act of 2005

Title XV, Subtitle B of the Energy Policy Act of 2005 (the Underground Storage Tank Compliance Act of 2005) contains amendments to Subtitle I of the Solid Waste Disposal Act, the original legislation that created the Underground Storage Tank (UST) Program. As defined by law, a UST is “any one or combination of tanks, including pipes connected thereto, that is used for the storage of hazardous substances and that is substantially or totally beneath the surface of the ground.” In cooperation with USEPA, SWRCB oversees the UST Program. The intent is to protect public health and safety and the environment from releases of petroleum and other hazardous substances from tanks. The four primary program elements include leak prevention (implemented by Certified Unified Program Agencies [CUPAs], described in more detail below), cleanup of leaking tanks, enforcement of UST requirements, and tank integrity testing.

Spill Prevention, Control, and Countermeasure Rule

USEPA’s Spill Prevention, Control, and Countermeasure (SPCC) Rule (40 CFR, Part 112) apply to facilities with a single above-ground storage tank (AST) with a storage capacity greater than 660 gallons, or multiple tanks with a combined capacity greater than 1,320 gallons. The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans.

Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

Federal Communications Commission Requirements

There is no federally mandated radio frequency (RF) exposure standard; however, pursuant to the Telecommunications Act of 1996 (47 USC Section 224), the Federal Communications Commission (FCC) established guidelines for dealing with RF exposure, as presented below. The exposure limits are specified in 47 CFR Section 1.1310 in terms of frequency, field strength, power density, and averaging time. Facilities and transmitters licensed and authorized by FCC must either comply with these limits or an applicant must file an environmental assessment with FCC to evaluate whether the proposed facilities could result in a significant environmental effect.

FCC has established two sets of RF radiation exposure limits—Occupational/Controlled and General Population/Uncontrolled. The less-restrictive Occupational/Controlled limit applies only when a person (worker) is exposed

as a consequence of his or her employment and is “fully aware of the potential exposure and can exercise control over his or her exposure,” otherwise the General Population limit applies (47 CFR Section 1.1310).

The FCC exposure limits generally apply to all FCC-licensed facilities (47 CFR Section 1.1307[b][1]). Unless exemptions apply, as a condition of obtaining a license to transmit, applicants must certify that they comply with FCC environmental rules, including those that are designed to prevent exposing persons to radiation above FCC RF limits (47 CFR Section 1.1307[b]). Licensees at co-located sites (e.g., towers supporting multiple antennas, including antennas under separate ownerships) must take the necessary actions to bring the accessible areas that exceed the FCC exposure limits into compliance. This is a shared responsibility of all licensees whose transmission power density levels account for 5.0 or more percent of the applicable FCC exposure limits (47 CFR 1.1307[b][3]).

Code of Federal Regulations (14 CFR) Part 77

14 CFR Part 77.9 is designed to promote air safety and the efficient use of navigable airspace. Implementation of the code is administered by the Federal Aviation Administration (FAA). If an organization plans to sponsor any construction or alterations that might affect navigable airspace, a Notice of Proposed Construction or Alteration (FAA Form 7460-1) must be filed. The code provides specific guidance regarding FAA notification requirements.

State Laws, Regulations, and Policies

Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the state’s drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public of exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In accordance with Proposition 65, the California Governor’s Office publishes, at least annually, a list of such chemicals. OEHHA, an agency under the California Environmental Protection Agency (CalEPA), is the lead agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General’s Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other state agencies set the standards for their programs, while local governments (CUPAs) implement the standards. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans;
- California accidental release prevention plans or federal risk management plans;
- The operation of USTs and ASTs;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

Hazardous Materials Business Plans

Hazardous materials business plans are required for businesses that handle hazardous materials in quantities greater than or equal to 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet (cf) of compressed gas, or extremely hazardous substances above the threshold planning quantity (40 CFR, Part 355, Appendix A) (Cal OES, 2015). Business plans are required to include an inventory of the hazardous materials used/stored by the business, a site map, an emergency plan, and a training program for employees (Cal OES, 2015). In addition, business plan information is provided electronically to a statewide information management system, verified by the applicable CUPA, and transmitted to agencies responsible for the

protection of public health and safety (i.e., local fire department, hazardous material response team, and local environmental regulatory groups) (Cal OES, 2015).

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans.

Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible RF radiation exposure limits for workers (Title 8 CCR Section 5085[b]), and requires warning signs where RF radiation might exceed the specified limits (Title 8 CCR Section 5085 [c]).

California Accidental Release Prevention

The purpose of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. In accordance with this program, businesses that handle more than a threshold quantity of regulated substance are required to develop a risk management plan (RMP). This RMP must provide a detailed analysis of potential risk factors and associated mitigation measures that can be implemented to reduce accident potential. CUPAs implement the CalARP program through review of RMPs, facility inspections, and public access to information that is not confidential or a trade secret.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the California Department of Forestry and Fire Protection (CAL FIRE) administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Highway Patrol

CHP, along with Caltrans, enforce and monitor hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

Local Laws, Regulations, and Policies

A map of the fuel loading in the County (General Plan Figure HS-1) shows the fire hazard severity classifications of the State Responsibility Areas in El Dorado County, as established by CDF. The classification system provides three classes of fire hazards: Moderate, High, and Very High. Fire Hazard Ordinance (Chapter 8.08) requires defensible space as described by the

State Public Resources Code, including the incorporation and maintenance of a 30-foot fire break or vegetation fuel clearance around structures in fire hazard zones. The County's requirements on emergency access, signing and numbering, and emergency water are more stringent than those required by state law (Patton 2002). The Fire Hazard Ordinance also establishes limits on campfires, fireworks, smoking, and incinerators for all discretionary and ministerial developments.

Discussion: A substantial adverse effect due to hazards or hazardous materials would occur if implementation of the project would:

- Expose people and property to hazards associated with the use, storage, transport, and disposal of hazardous materials where the risk of such exposure could not be reduced through implementation of Federal, State, and local laws and regulations;
 - Expose people and property to risks associated with wildland fires where such risks could not be reduced through implementation of proper fuel management techniques, buffers and landscape setbacks, structural design features, and emergency access; or
 - Expose people to safety hazards as a result of former on-site mining operations.
- a, b. **Hazardous Materials:** The Federal Communication Commission (FCC) prohibits local governments from denying a wireless facility project based on concerns about the dangers of exposure to radio frequency or electromagnetic fields (EMF). This is due to inconclusive evidence about the health risk of exposure to radio frequency EMF.

The Telecommunications Act of 1996 became effective on February 8, 1996. This act preserves the authority of the State or local government over decisions regarding the placement, construction, and modifications of personal wireless services, subject to two limitations. Section 704(7)B(iii) requires any denials to be in writing and supported by "substantial evidence." Section 704(7)B(iv) prohibits denial on the basis of radio frequency emissions if those emissions are compliant with Federal regulations.

The American National Standards Institute and the Institute of Electrical and Electronics Engineers (IEEE) have published a standard called ANSI/IEEE C95.1-1992, which until recently set recommended maximum power density levels for radio frequency (RF) energy originating from communications sites and other sources. The FCC has also produced its own guidelines, which are more stringent and supersede the ANSI standard. The FCC rules categorically exclude certain transmitting facilities from routine evaluations for compliance with the RF emission guidelines if it can be determined that it is unlikely to cause workers or the general public to become exposed to emission that exceed the guidelines. The following table represents the FCC limits for both occupational and general population exposures to different radio frequencies:

Frequency Range (F) (MHz)	Limits for Occupational Exposure (mW/cm ²)*	Limits for General Public Exposure (mW/cm ²)
0.3-1.34	100	100
1.34-3.0	100	180/F ²
3.0—30	900/F ²	180/F ²
30-300	1.0	0.2
300-1,500	F/300	F/1500
1,500-100,000	5.0	1.0

*mW/cm²=Milliwatt per square Centimeter

The RF analysis dated March 24, 2015 found that for a person anywhere at ground level, the maximum exposure level from the proposed Verizon operation would be 2.0% of the general public maximum permitted exposure limit (MPE) (Hammett, 2015a; Attachment 4). The nearest residential structure considered was the former manufactured home that is no longer at the property. At a distance of 140 feet, the public exposure limit would be 0.74 percent of the public exposure limit. The nearest off-site residence is located approximately 300 feet northwest of the proposed monopine. The report validates the figures based on the FCC Regulations for measurements identifying quantitative standards for human exposure limits based on radio frequency emissions. Therefore, the risk of release of hazardous materials or emissions to the public is remote.

The project would not be anticipated to introduce, transport, store, or dispose of hazardous materials in such quantities that would create a hazard to people or the environment. The El Dorado County Environmental Management Division has conditioned the project to require a Hazardous Materials Business Plan for the storage of the reportable quantities of hazardous materials for the backup power generator. Adherence to the Hazardous Materials Business Plan would ensure impacts are less than significant.

The site is located in an area of naturally occurring asbestos (El Dorado County, 2005). The AQMD reviewed the application materials for this project and determined that by implementing typical conditions including Rules 223 and 223.2 (Asbestos Dust Mitigation Plan), which are included in the project permit, the project would have a less than significant impact in this category. The conditions would be implemented, reviewed, and approved by the AQMD prior to and concurrently with the grading, improvement, and/or building permit approvals. Adherence to the limitations of construction and to the Asbestos Dust Mitigation Plan would ensure impacts are less than significant.

- c. **Hazardous Materials near Schools:** The nearest school to the project site is Ponderosa High School, approximately 1,340 feet southeast of the proposed facility across Ponderosa Road. The project will not emit hazardous emissions, but will involve the handling of reportable amounts of hazardous materials or substances. The El Dorado County Environmental Management Division has conditioned the project to require a Hazardous Materials Business Plan for the storage of the reportable quantities of hazardous materials for the backup power generator. Adherence to the Hazardous Materials Business Plan would ensure impacts are less than significant.
- d. **Hazardous Sites:** The project site is not included on a list of hazardous materials sites pursuant to Government Code section 65962.5 (DTSC, 2015). There would be no impact with the approval of the proposed project.
- e. **Aircraft Hazards:** According to the El Dorado County Zoning Map, the project site is not within any airport safety zone or airport land use plan area. There would be no impact.
- f. **Private Airstrips:** There are no private airstrips in the vicinity of the project site. There would be no impact.
- g. **Emergency Plan:** The proposed project consists of installation of ground equipment and a wireless telecommunications facility which would not necessitate alterations to any street and would generate less than two vehicle trips per month. The project was reviewed by the El Dorado County Fire Protection District and the Transportation Division. The project would not physically interfere with the implementation of the County adopted emergency response and/or evacuation plan for the project area. Impacts would be less than significant.
- h. **Wildfire Hazards:** The project site is in an area of very high, high, and moderate hazard for wildland fire pursuant to Figure 5.8-4 of the 2004 General Plan Draft EIR. The proposed facility would be located within the moderate hazard area and El Dorado County Fire Protection District standard conditions of approval will be incorporated into the permit approvals. Implementation of the fire district standards and California Building Codes would reduce the impacts of wildland fire to a less than significant level.

FINDING: The project would not be anticipated to expose the area to significant hazards relating to the use, storage, transport, or disposal of hazardous materials. Any proposed future use of hazardous materials would be subject to review and approval of a Hazardous Materials Business Plan issued by the Environmental Management. For this “Hazards and Hazardous Materials” category, impacts would be less than significant.

IX. HYDROLOGY AND WATER QUALITY. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or -off-site?			X	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e. 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?			X	
f. Otherwise substantially degrade water quality?			X	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j. Inundation by seiche, tsunami, or mudflow?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The key sections pertaining to water quality regulation for the Proposed Project are CWA Section 303 and Section 402.

Section 303(d) — Listing of Impaired Water Bodies

Under CWA Section 303(d), states are required to identify “impaired water bodies” (those not meeting established water quality standards), identify the pollutants causing the impairment, establish priority rankings for waters on the list, and develop a schedule for the development of control plans to improve water quality. USEPA then approves the State’s recommended list of impaired waters or adds and/or removes waterbodies.

Section 402—NPDES Permits for Stormwater Discharge

CWA Section 402 regulates construction-related stormwater discharges to surface waters through the NPDES, which is officially administered by USEPA. In California, USEPA has delegated its authority to the State Water Resources Control Board (SWRCB), which, in turn, delegates implementation responsibility to the nine RWQCBs, as discussed below in reference to the Porter-Cologne Water Quality Control Act.

The NPDES program provides for both general (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits. General Permit for Construction Activities: Most construction projects that disturb 1.0 or more acre of land are required to obtain coverage under SWRCB’s General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). The general permit requires that the applicant file a public notice of intent to discharge stormwater and prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). SWPPP must include a site map and a description of the proposed construction activities, demonstrate compliance with relevant local ordinances and regulations, and present a list of Best Management Practices (BMPs) that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Permittees are further required to monitor construction activities and report compliance to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

Municipal Stormwater Permitting Program

SWRCB regulates stormwater discharges from municipal separate storm sewer systems (MS4s) through its Municipal Storm Water Permitting Program (SWRCB, 2013). Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for medium (population between 100,000 and 250,000 people) and large (population of 250,000 or more people) municipalities, and are often issued to a group of co-permittees within a metropolitan area. Phase I permits have been issued since 1990. Beginning in 2003, SWRCB began issuing Phase II MS4 permits for smaller municipalities (population less than 100,000).

El Dorado County is covered under two SWRCB Regional Boards. The West Slope Phase II Municipal Separate Storm Sewer Systems (MS4) NPDES Permit is administered by the Central Valley Regional Water Quality Control Board (RWQCB) (Region Five). The Lake Tahoe Phase I MS4 NPDES Permit is administered by the Lahontan RWQCB (Region Six). The current West Slope MS4 NPDES Permit was adopted by the SWRCB on February 5, 2013. The Permit became effective on July 1, 2013 for a term of five years and focuses on the enhancement of surface water quality within high priority urbanized areas. The current Lake Tahoe MS4 NPDES Permit was adopted and took effect on December 6, 2011 for a term of five years. The Permit incorporated the Lake Tahoe Total Maximum Daily Load (TMDL) and the Lake Clarity Crediting Program (LCCP) to account for the reduction of fine sediment particles and nutrients discharged to Lake Tahoe.

On May 19, 2015 the El Dorado County Board of Supervisors formally adopted revisions to the Storm Water Quality Ordinance (Ordinance 4992). Previously applicable only to the Lake Tahoe Basin, the ordinance establishes legal authority for the entire unincorporated portion of the County. The purpose of the ordinance is to 1) protect health, safety, and general welfare, 2) enhance and protect the quality of Waters of the State by reducing pollutants in storm water discharges to the maximum extent practicable and controlling non-storm water discharges to the storm drain system, and 3) cause the use of Best Management Practices to reduce the adverse effects of polluted runoff discharges on Waters of the State.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities complying with FEMA regulations that limit development in floodplains. The NFIP regulations permit development within special flood hazard zones provided that residential structures are raised above the base flood elevation of a 100-year flood event. Non-residential structures are required either to provide flood proofing

construction techniques for that portion of structures below the 100-year flood elevation or to elevate above the 100-year flood elevation. The regulations also apply to substantial improvements of existing structures.

State Laws, Regulations, and Policies

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with the CWA (see discussion of the CWA above). It established the SWRCB and divided the state into nine regions, each overseen by an RWQCB. SWRCB is the primary State agency responsible for protecting the quality of the state’s surface water and groundwater supplies; however, much of the SWRCB’s daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Sections 401, 402, and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California’s major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter–Cologne Act, basin plans must be updated every 3 years.

Discussion: A substantial adverse effect on Hydrology and Water Quality would occur if the implementation of the project would:

- Expose residents to flood hazards by being located within the 100-year floodplain as defined by the Federal Emergency Management Agency;
 - Cause substantial change in the rate and amount of surface runoff leaving the project site ultimately causing a substantial change in the amount of water in a stream, river or other waterway;
 - Substantially interfere with groundwater recharge;
 - Cause degradation of water quality (temperature, dissolved oxygen, turbidity and/or other typical stormwater pollutants) in the project area; or
 - Cause degradation of groundwater quality in the vicinity of the project site.
- a. **Water Quality Standards:** Erosion control would be required as part of the building permit and grading permit, if applicable. Adherence to County Code would not increase the level of sediment significantly above the current stormwater discharge levels. Operation of the proposed project would not involve any uses that would generate wastewater. Stormwater runoff from potential development and construction related activities would be required to adhere to the El Dorado County Grading, Erosion Control and Sediment Ordinance. This includes the use of Best Management Practices (BMPs) to minimize degradation of water quality during construction. Impacts would be less than significant.
- b. **Groundwater Supplies:** The project is not anticipated to affect potential groundwater supplies above pre-project levels. The project is of limited size and will not require water use for operation. There would be no impact.
- c-f. **Drainage Patterns:** A site improvement and grading permit, as applicable, would be required through Development Services to address grading, erosion and sediment control at the lease area and access road. Project related construction activities would be required to adhere to the El Dorado County Grading, Erosion Control and Sediment Ordinance. This includes the use of BMPs to minimize degradation of water quality during construction. Impacts would be less than significant.
- g-j. **Flood-related Hazards:** The project site is not located within any mapped 100-year flood areas and would not result in the construction of any structures that would impede or redirect flood flows (FEMA, 2008). No dams that would result in potential hazards related to dam failures are located in the project area. The risk of exposure to seiche, tsunami, or mudflows would be remote. There would be no impact.

FINDING: The proposed project would require a site improvement and grading permit through the Development Services Division, Building Services, as applicable, that would address any potentially applicable erosion and sediment control. No significant hydrological impacts are expected with the development of the project either directly or indirectly. For this “Hydrology” category, impacts are anticipated to be less than significant.

X. LAND USE PLANNING. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Regulatory Setting:

California State law requires that each City and County adopt a general plan "for the physical development of the City and any land outside its boundaries which bears relation to its planning." Typically, a general plan is designed to address the issues facing the City or County for the next 15-20 years. The general plan expresses the community's development goals and incorporates public policies relative to the distribution of future public and private land uses. The El Dorado County General Plan was adopted in 2004. The 2013-2021 Housing Element was adopted in 2013.

Discussion: A substantial adverse effect on Land Use would occur if the implementation of the project would:

- Result in the conversion of Prime Farmland as defined by the State Department of Conservation;
 - Result in conversion of land that either contains choice soils or which the County Agricultural Commission has identified as suitable for sustained grazing, provided that such lands were not assigned urban or other nonagricultural use in the Land Use Map;
 - Result in conversion of undeveloped open space to more intensive land uses;
 - Result in a use substantially incompatible with the existing surrounding land uses; or
 - Conflict with adopted environmental plans, policies, and goals of the community.
- a. **Established Community:** The adjoining parcels to the south, west, north, and northeast are designated for low- and medium- density residential land uses. To the southwest lies Ponderosa High School, a public facilities land use. The project would provide improved wireless cellular telecommunications along the Ponderosa Road Corridor, to rural residential properties in the area, and fulfill user needs to nearby Ponderosa High School. No new roadways, land divisions, rail lines, bridges or other improvements which would physically divide an established community are proposed. There would be no impact.
- b. **Land Use Consistency:** The parcel is zoned Estate Residential (RE-10). Zoning Ordinance section 130.14.210.5.b permits wireless communication facilities in residential zone districts with approval of a Special Use Permit by the Planning Commission, pursuant to the development standards of 130.14.210.F. These standards include screening, compliance with setbacks, and proper maintenance. The applicant has provided a project narrative explaining the project details, potential benefits to the community, and site selection. The applicant has designed the wireless

telecommunications facility in compliance with County regulations, addressing aesthetics and health and safety concerns. The application is complete and complies with zoning and wireless facilities regulations. As conditioned, impacts would be less than significant.

- c. **Habitat Conservation Plan:** The proposed project is not located in an area covered by a Habitat Conservation Plan or a Natural Community Conservation Plan. There would be no impact.

FINDING: The proposed use of the land would be consistent with the Zoning Ordinance and General Plan with the issuance of a Special Use Permit. There would be no significant impact to land use goals or standards resulting from the project. As conditioned, and with adherence to County Code, no significant impacts would be expected for this “Land Use Planning” category.

XI. MINERAL RESOURCES. Would the project:				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to mineral resources and the Proposed Project.

State Laws, Regulations, and Policies

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board identify, map, and classify aggregate resources throughout California that contain regionally significant mineral resources. Designations of land areas are assigned by CDC and California Geological Survey following analysis of geologic reports and maps, field investigations, and using information about the locations of active sand and gravel mining operations. Local jurisdictions are required to enact planning procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans.

The California Mineral Land Classification System represents the relationship between knowledge of mineral deposits and their economic characteristics (grade and size). The nomenclature used with the California Mineral Land Classification System is important in communicating mineral potential information in activities such as mineral land classification, and usage of these terms are incorporated into the criteria developed for assigning mineral resource zones. Lands classified MRZ-2 are areas that contain identified mineral resources. Areas classified as MRZ-2a or MRZ-2b (referred to hereafter as MRZ-2) are considered important mineral resource areas.

Local Laws, Regulations, and Policies

El Dorado County in general is considered a mining region capable of producing a wide variety of mineral resources. Metallic mineral deposits, including gold, are considered the most significant extractive mineral resources. Exhibit 5.9-6 shows the MRZ-2 areas within the county based on designated Mineral Resource (-MR) overlay areas. The -MR overlay areas are based on mineral resource mapping published in the mineral land classification reports referenced above. The majority of the county's important mineral resource deposits are concentrated in the western third of the county.

According to General Plan Policy 2.2.2.7, before authorizing any land uses within the -MR overlay zone that will threaten the potential to extract minerals in the affected area, the County shall prepare a statement specifying its reasons for considering approval of the proposed land use and shall provide for public and agency notice of such a statement consistent with the requirements of Public Resources Code section 2762. Furthermore, before finally approving any such proposed land use, the County shall balance the mineral values of the threatened mineral resource area against the economic, social, or other values associated with the proposed alternative land uses. Where the affected minerals are of regional significance, the County shall consider the importance of these minerals to their market region as a whole and not just their importance to the County.

Where the affected minerals are of Statewide significance, the County shall consider the importance of these minerals to the State and Nation as a whole. The County may approve the alternative land use if it determines that the benefits of such uses outweigh the potential or certain loss of the affected mineral resources in the affected regional, Statewide, or national market.

Discussion: A substantial adverse effect on Mineral Resources would occur if the implementation of the project would:

- Result in obstruction of access to, and extraction of mineral resources classified MRZ-2x, or result in land use compatibility conflicts with mineral extraction operations.
- a, b. **Mineral Resources:** The project site has not been delineated in the El Dorado County General Plan as a locally important mineral resource recovery site (2003, Exhibits 5.9-6 and 5.9-7). Review of the California Department of Conservation Geologic Map data showed that the project site is not within a mineral resource zone district. The project would construct the telecommunications facility within a 30- by 30-foot lease area. Because of the relatively small project footprint size, and the absence of any known important mineral resources, the proposed project is not anticipated to impact important mineral resources. No impacts are anticipated.

FINDING: No impacts to energy and mineral resources are expected with the development of the wireless telecommunications facility either directly or indirectly. For this "Mineral Resources" category, there would be no impacts.

XII. NOISE. <i>Would the project result in:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

XII. NOISE. <i>Would the project result in:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise level?				X
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Regulatory Setting:

No federal or state laws, regulations, or policies for construction-related noise and vibration apply to the Proposed Project. However, the Federal Transit Administration (FTA) Guidelines for Construction Vibration in Transit Noise and Vibration Impact Assessment state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA Leq and 100 dBA Leq should be used for residential and commercial/industrial areas, respectively (FTA 2006).

For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.12 inches per second (in/sec) PPV for buildings susceptible to vibration damage (FTA 2006).

Discussion: A substantial adverse effect due to Noise would occur if the implementation of the project would:

- Result in short-term construction noise that creates noise exposures to surrounding noise sensitive land uses in excess of 60 decibel (dB) Community Noise Level Equivalent (CNEL);
 - Result in long-term operational noise that creates noise exposures in excess of 60 dB CNEL at the adjoining property line of a noise sensitive land use and the background noise level is increased by 3dB, or more; or
 - Results in noise levels inconsistent with the performance standards contained in Table 6-1 and Table 6-2 in the El Dorado County General Plan.
- a. **Noise Exposures:** The proposed project will not expose people to noise levels in excess of standards established in the General Plan or Zoning Ordinance. Short-term construction-related noise would be required to comply with grading and construction permitting requirements and the noise performance standards contained in the General Plan. Noise would also result from the operation of the electronic base transfer system (BTS or cabinets) and two air conditioning units within the equipment shelter, and from a back-up generator. According to Table 6-2 of the General Plan, nontransportation noise is limited to a time-averaged level of 55dB and maximum of 70dB in Community areas at the property line of the receiving property line 7am to 7pm (p. 118). The nearest property lines to the lease area are approximately 100 feet to the west, 1,600 feet to the south, 1,050 feet to the southeast, 70 feet to the north, and 500 feet to the east. The nearest residence is approximately 300 feet to the northwest. Ponderosa High School is approximately 1,340 feet to the southeast. Properties to the north and east are outside of the Community Region in the rural area, so a more restrictive time-averaged level of 50dB and maximum of 60dB was analyzed. The maximum noise level from the air conditioner is 61.0 dBA when measured at a distance of 6.5 feet, according to the sound level evaluation for this site and proposed equipment. The maximum calculated noise levels for continuous operation of the air conditioners are 36.5 and 30.5.0 dBA, at the west and north property lines, respectively. This is below the County's most restrictive nighttime limit of 40 dBA. On the day on which the generator is tested, the maximum calculated noise levels are 34.0 and 35.3 dBA, respectively, also below the County's most restrictive limit (Hammett, 2015b; Attachment 5). The generator is only used during daytime hours for testing and maintenance and extended power outages. The predicted noise level of the air conditioners with

generator at the nearest property lines listed above is below the maximum and average county limits for community and rural areas for daytime, evening, and night noise standards (Bollard, 2014). The noise produced as a result of this project would comply with the standards in the General Plan. A standard condition limiting the days and time of generator maintenance will further lessen this impact. The noise associated with the project would be less than significant.

- b. **Groundborne Shaking:** The project may generate ground borne vibration or shaking events during project construction, which is anticipated to take approximately 45 days. These potential impacts would be limited to project construction. Impacts are anticipated to be less than significant.
- c. **Permanent Noise Increases:** Routine maintenance visits would occur approximately once or twice a month. The vehicle noise from the addition of the maintenance visit(s) would not be measurable and would not exceed the noise standards contained in the General Plan. The impacts would be considered less than significant.
- d. **Short Term Noise:** Short-term construction-related noise impacts associated with excavation, grading, and construction activities would occur as part of the project. Construction of the facility would consist of extending the driveway to the lease area, minimal grading for the lease area, setting the tower, placing ground equipment within the lease area, installing one equipment shelter, laying gravel, and installing a six-foot fence. These activities are anticipated to occur on weekdays only over an approximately 45-day period during daylight hours and would not involve extensive use of heavy equipment that would be a substantial source of noise or vibration at the residence. El Dorado County requires that all construction vehicles and equipment, fixed or mobile, be equipped with properly maintained and functioning mufflers. All construction and grading operations would be required to comply with the noise performance standards contained in the General Plan. According to Table 6-5 of the General Plan, nontransportation construction noise is limited to a time-averaged level of 70dB and maximum of 75dB from 7am to 7pm (p. 118). Impacts would be less than significant.
- e-f. **Aircraft Noise:** There are no airstrips or airports within the project vicinity. There would be no impact.

FINDING: As conditioned, and with adherence to County Code, no significant direct or indirect impacts to noise levels are expected with the development of the wireless telecommunications facility either directly or indirectly. For this “Noise” category, the thresholds of significance would not be exceeded.

XIII. POPULATION AND HOUSING. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (i.e., by proposing new homes and businesses) or indirectly (i.e., through extension of roads or other infrastructure)?				X
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Regulatory Setting:

No federal or state laws, regulations, or policies apply to population and housing and the Proposed Project.

Discussion: A substantial adverse effect on Population and Housing would occur if the implementation of the project would:

- Create substantial growth or concentration in population;
- Create a more substantial imbalance in the County's current jobs to housing ratio; or
- Conflict with adopted goals and policies set forth in applicable planning documents.

a-c. **Population Growth, Housing Displacement, and Replacement Housing:** The proposed project will not produce any housing, employment areas, roads or other infrastructure. The facility will require monthly maintenance and will be accessed by an access drive extending from the existing residential driveway. No housing or people would be displaced as a result of the proposed project. Therefore, there would be no impact to Population and Housing.

FINDING: The project would not displace housing. There would be no potential for a significant impact due to substantial growth with the communications facility either directly or indirectly. For this "Population and Housing" category, the thresholds of significance would not be anticipated to be exceeded.

XIV. PUBLIC SERVICES. <i>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:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Fire protection?			X	
b. Police protection?				X
c. Schools?				X
d. Parks?				X
e. Other government services?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

California Fire Code

The California Fire Code (Title 24 CCR, Part 9) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of CCR contains requirements for fire safety during construction and demolition.

Discussion: A substantial adverse effect on Public Services would occur if the implementation of the project would:

- Substantially increase or expand the demand for fire protection and emergency medical services without increasing staffing and equipment to meet the Department's/District's goal of 1.5 firefighters per 1,000 residents and 2 firefighters per 1,000 residents, respectively;
- Substantially increase or expand the demand for public law enforcement protection without increasing staffing and equipment to maintain the Sheriff's Department goal of one sworn officer per 1,000 residents;

- Substantially increase the public school student population exceeding current school capacity without also including provisions to adequately accommodate the increased demand in services;
 - Place a demand for library services in excess of available resources;
 - Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or
 - Be inconsistent with County adopted goals, objectives or policies.
- a. **Fire Protection:** The parcel is within the El Dorado County Fire Protection District service area. The new, unoccupied facility would represent a minimal increase in the demand for structural fire protection at the project site. The Fire District's conditions of approval will be incorporated into the final permit. Impacts would be less than significant.
- b. **Police Protection:** Police services would continue to be provided by the El Dorado County Sheriff's Department. The facility will not be staffed and will be enclosed by a six-foot fence with chain link with two rows of barbed wire on top within private residential property. No new or expanded law enforcement services would be required. There would be no impact.
- c-e. **Schools, Parks and Government Services:** There are no components of operating the proposed project that would include any permanent population-related increases that would substantially contribute to increased demand on schools, parks, or other governmental services that could, in turn, result in the need for new or expanded facilities. There would be no impact.

FINDING: As discussed above, there would be no significant impacts to public services as a result of a wireless communication facility. For this "Public Services" category, impacts are anticipated to be less than significant.

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

Regulatory Setting:

National Trails System

The National Trails System Act of 1968 authorized The National Trails System (NTS) in order to provide additional outdoor recreation opportunities and to promote the preservation of access to the outdoor areas and historic resources of the nation. The Appalachian and Pacific Crest National Scenic Trails were the first two components, and the System has grown to include 20 national trails.

The National Trails System includes four classes of trails:

1. National Scenic Trails (NST) provide outdoor recreation and the conservation and enjoyment of significant scenic, historic, natural, or cultural qualities. The Pacific Coast Trail falls under this category. The PCT passes through the Desolation Wilderness area along the western plan area boundary.

2. National Historic Trails (NHT) follow travel routes of national historic significance. The National Park Service has designated two National Historic Trail (NHT) alignments that pass through El Dorado County, the California National Historic Trail and the Pony Express National Historic Trail. The California Historic Trail is a route of approximately 5,700 miles including multiple routes and cutoffs, extending from Independence and Saint Joseph, Missouri, and Council Bluffs, Iowa, to various points in California and Oregon. The Pony Express NHT commemorates the route used to relay mail via horseback from Missouri to California before the advent of the telegraph.
3. National Recreation Trails (NRT) are in, or reasonably accessible to, urban areas on federal, state, or private lands. In El Dorado County there are 5 NRTs.

State Laws, Regulations, and Policies

The California Parklands Act

The California Parklands Act of 1980 (Public Resources Code Section 5096.141-5096.143) recognizes the public interest for the state to acquire, develop, and restore areas for recreation and to aid local governments to do the same. The California Parklands Act also identifies the necessity of local agencies to exercise vigilance to see that the parks, recreation areas, and recreational facilities they now have are not lost to other uses.

The California state legislature approved the California Recreational Trail Act of 1974 (Public Resources Code Section 2070-5077.8) requiring that the Department of Parks and Recreation prepare a comprehensive plan for California trails. The California Recreational Trails Plan is produced for all California agencies and recreation providers that manage trails. The Plan includes information on the benefits of trails, how to acquire funding, effective stewardship, and how to encourage cooperation among different trail users.

The 1975 Quimby Act (California Government Code Section 66477) requires residential subdivision developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act gave authority for passage of land dedication ordinances to cities and counties for parkland dedication or in-lieu fees paid to the local jurisdiction. Quimby exactions must be roughly proportional and closely tied (nexus) to a project's impacts as identified through traffic studies required by CEQA. The exactions only apply to the acquisition of new parkland; they do not apply to the physical development of new park facilities or associated operations and maintenance costs.

The County implements the Quimby Act through section 120.12.090 of the County Code. The County Code sets standards for the acquisition of land for parks and recreational purposes, or payments of fees in lieu thereof, on any land subdivision. Other projects, such as ministerial residential or commercial development, could contribute to the demand for park and recreation facilities without providing land or funding for such facilities.

Local Laws, Regulations, and Policies

The 2004 El Dorado County General Plan Parks and Recreation Element establishes goals and policies that address needs for the provision and maintenance of parks and recreation facilities in the County, with a focus on providing recreational opportunities and facilities on a regional scale, securing adequate funding sources, and increasing tourism and recreation-based businesses. The Recreation Element describes the need for 1.5 acres of regional parkland, 1.5 acres of community parkland, and 2 acres of neighborhood parkland per 1,000 residents. Another 95 acres of park land are needed to meet the General Plan guidelines.

Discussion: A substantial adverse effect on Recreational Resources would occur if the implementation of the project would:

- Substantially increase the local population without dedicating a minimum of 5 acres of developed parklands for every 1,000 residents; or
- Substantially increase the use of neighborhood or regional parks in the area such that substantial physical deterioration of the facility would occur.

- a, b. **Parks and Recreational Services:** The project does not include any increase in permanent population that would contribute to increased demand on recreation facilities or contribute to increased use of existing facilities. There would be no impact.

FINDING: As discussed above, there would be no significant impacts to recreation as a result of the construction and operation of a wireless communication facility.

XVI. TRANSPORTATION/TRAFFIC. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e. Result in inadequate emergency access?			X	
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to transportation/traffic and the Proposed Project.

State Laws, Regulations, and Policies

Caltrans manages the state highway system and ramp interchange intersections. This state agency is also responsible for highway, bridge, and rail transportation planning, construction, and maintenance.

Local Laws, Regulations, and Policies

According to the transportation element of the County General Plan, Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions. Level of Service is defined in the latest edition of the Highway Capacity

Manual (Transportation Research Board, National Research Council). There are some roadway segments that are excepted from these standards and are allowed to operate at LOS F, although none of these are located in the project area. According to Policy TC-Xe, “worsen” is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:

- A. A two percent increase in traffic during a.m., p.m. peak hour, or daily;
- B. The addition of 100 or more daily trips; or
- C. The addition of 10 or more trips during the a.m. or p.m. peak hour.

Discussion: The Transportation and Circulation Policies contained in the County General Plan establish a framework for review of thresholds of significance and identification of potential impacts of new development on the County’s road system. These policies are enforced by the application of the Transportation Impact Study (TIS) Guidelines, the County Design and Improvements Standards Manual, and the County Encroachment Ordinance, with review of individual development projects by the Transportation and Long Range Planning Divisions of the Community Development Agency. A substantial adverse effect on Traffic would occur if the implementation of the project would:

- Result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system;
 - Generate traffic volumes which cause violations of adopted level of service standards (project and cumulative); or
 - Result in, or worsen, Level of Service (LOS) F traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county as a result of a residential development project of 5 or more units.
- a. **Traffic Increases:** No substantial traffic increases would result from the proposed project, as the only added trips would result from monthly maintenance visits. Comments concerning the proposed facility were received from the Transportation Division and do not indicate that the LOS would be significantly impacted by the proposed project. Access to the site would be from the existing driveway. Impacts would be less than significant.
 - b. **Levels of Service Standards:** The LOS established by the County would not be exceeded by the project, nor would the surrounding road circulation system be impacted. There would be no impact.
 - c. **Air Traffic:** The site is not located near an airport. The 70-foot height is similar to some of the trees in the area and would not create an air traffic hazard. There would be no impact.
 - d. **Design Hazards:** The design and location of the project is not anticipated to create any significant hazards. The Transportation Division analysis identified no issues for the project, and Transportation Division conditions of approval have been incorporated into the permit approval. There would be no impact.
 - e. **Emergency Access:** The project would not result in inadequate emergency access. The project was reviewed by the Transportation Division and the El Dorado County Fire Protection District to ensure that adequate access would be provided to meet County Fire Safe and County Design Improvement Standards Manual standards. With the inclusion of the Transportation Division and Fire District’s standard and project specific conditions, impacts would be less than significant.
 - f. **Alternative Transportation:** The project would not conflict with adopted plans, policies or programs relating to alternative transportation. There would be no impact.

FINDING: As discussed above, no significant traffic impacts are expected with the wireless telecommunications facility either directly or indirectly. For this Transportation/Traffic category, the thresholds of significance would not be exceeded and impacts are anticipated to be less than significant.

XVII. TRIBAL CULTURAL RESOURCES. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074?			X	

Regulatory Setting:

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies apply to Tribal Cultural Resources (TCRs) and the Proposed Project.

State Laws, Regulations, and Policies

Assembly Bill (AB) 52

AB 52, which was approved in September 2014 and effective on July 1, 2015, requires that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. The bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment.

Defined in Section 21074(a) of the Public Resources Code, TCRs are:

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
 - b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
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 subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Section 21074 as follows:

- a. A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
- b. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

Discussion:

In general, significant impacts are those that diminish the integrity, research potential, or other characteristics that make a TCR significant or important. To be considered a TCR, a resource must be either: (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or: (2) a resource that the lead agency chooses, in its discretion, to treat as a TCR and meets the criteria for listing in the state register of historic resources pursuant to the criteria set forth in Public Resources Code Section 5024.1(c). A substantial adverse change to a TCR would occur if the implementation of the project would:

- Disrupt, alter, or adversely affect a TCR such that the significance of the resource would be materially impaired
- a. **Tribal Cultural Resources.** At the time this project was deemed complete and CEQA was initiated, the County had not received any requests for consultation under AB52 by a California Native American Tribe. Further, the geographic area of the project site is not known to contain any TCRs.

FINDING: No significant TCRs are known to exist on the project site. As a result, the proposed project would not cause a substantial adverse change to a TCR. For this “Tribal Cultural Resources” category, impacts are anticipated to be less than significant.

XVIII. UTILITIES AND SERVICE SYSTEMS. <i>Would the project:</i>				
	Potentially Significant Impact	Less than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g. Comply with federal, state, and local statutes and regulations related to solid waste?				X

Regulatory Setting:

Federal Laws, Regulations, and Policies

Energy Policy Act of 2005

The Energy Policy Act of 2005, intended to reduce reliance on fossil fuels, provides loan guarantees or tax credits for entities that develop or use fuel-efficient and/or energy efficient technologies (USEPA, 2014). The act also increases the amount of biofuel that must be mixed with gasoline sold in the United States (USEPA, 2014).

State Laws, Regulations, and Policies

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code, Division 30) requires all California cities and counties to implement programs to reduce, recycle, and compost wastes by at least 50 percent by 2000 (Public Resources Code Section 41780). The state, acting through the California Integrated Waste Management Board (CIWMB), determines compliance with this mandate. Per-capita disposal rates are used to determine whether a jurisdiction's efforts are meeting the intent of the act.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991 (Public Resources Code Sections 42900-42911) requires that all development projects applying for building permits include adequate, accessible areas for collecting and loading recyclable materials.

California Integrated Energy Policy

Senate Bill 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report for the governor and legislature every 2 years (CEC 2015a). The report analyzes data and provides policy recommendations on trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewable energy, and public interest energy research (CEC 2015a). The 2014 Draft Integrated Energy Policy Report Update includes policy recommendations, such as increasing investments in electric vehicle charging infrastructure at workplaces, multi-unit dwellings, and public sites (CEC 2015b).

Title 24–Building Energy Efficiency Standards

Title 24 Building Energy Efficiency Standards of the California Building Code are intended to ensure that building construction, system design, and installation achieve energy efficiency and preserve outdoor and indoor environmental quality (CEC 2012). The standards are updated on an approximately 3-year cycle. The 2013 standards went into effect on July 1, 2014.

Urban Water Management Planning Act

California Water Code Sections 10610 *et seq.* requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet per year (AFY), prepare an urban water management plan (UWMP).

Other Standards and Guidelines

Leadership in Energy & Environmental Design

Leadership in Energy & Environmental Design (LEED) is a green building certification program, operated by the U.S. Green Building Council (USGBC) that recognizes energy efficient and/or environmentally friendly (green) components of building design (USGBC, 2015). To receive LEED certification, a building project must satisfy prerequisites and earn points related to

different aspects of green building and environmental design (USGBC, 2015). The four levels of LEED certification are related to the number of points a project earns: (1) certified (40–49 points), (2) silver (50–59 points), (3) gold (60–79 points), and (4) platinum (80+ points) (USGBC, 2015). Points or credits may be obtained for various criteria, such as indoor and outdoor water use reduction, and construction and demolition (C&D) waste management planning. Indoor water use reduction entails reducing consumption of building fixtures and fittings by at least 20% from the calculated baseline and requires all newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible for labeling to be WaterSense labeled (USGBC, 2014). Outdoor water use reduction may be achieved by showing that the landscape does not require a permanent irrigation system beyond a maximum 2.0-year establishment period, or by reducing the project's landscape water requirement by at least 30% from the calculated baseline for the site's peak watering month (USGBC, 2014). C&D waste management points may be obtained by diverting at least 50% of C&D material and three material streams, or generating less than 2.5 pounds of construction waste per square foot of the building's floor area (USGBC, 2014).

Discussion: A substantial adverse effect on Utilities and Service Systems would occur if the implementation of the project would:

- Breach published national, state, or local standards relating to solid waste or litter control;
 - Substantially increase the demand for potable water in excess of available supplies or distribution capacity without also including provisions to adequately accommodate the increased demand, or is unable to provide an adequate on-site water supply, including treatment, storage and distribution;
 - Substantially increase the demand for the public collection, treatment, and disposal of wastewater without also including provisions to adequately accommodate the increased demand, or is unable to provide for adequate on-site wastewater system; or
 - Result in demand for expansion of power or telecommunications service facilities without also including provisions to adequately accommodate the increased or expanded demand.
- a. **Wastewater Requirements:** This project will have no use of water, associated plumbing, or wastewater systems. Construction and operation of the project would not involve discharges of untreated domestic wastewater that would violate water quality control board requirements. There would be no impact.
- b. **Construction of New/Expansion of Existing Wastewater Treatment Facilities:** As mentioned above, this facility would not involve the use of water or the generation of wastewater. No new or expanded wastewater treatment facilities would be required for the proposed wireless communication monopine. There would be no impact.
- c. **Construction of New/Expansion of Existing Stormwater Drainage Facilities:** All required drainage facilities for the project would be built in conformance with the County of El Dorado Drainage Manual, as determined by Development Services standards, during the grading and building permit processes. Stormwater runoff is anticipated to be minimal. Impacts would be considered less than significant.
- d. **Sufficient Water Supply:** As mentioned above, the proposed project would not require the use of water for operation, so no new entitlements would be needed. There would be no impact.
- e. **Adequate Capacity:** The project does not involve the treatment of wastewater for operation. There would be no need to determine whether or not there would be adequate capacity. There would be no impact.
- f, g. **Solid Waste Disposal and Solid Waste Requirements:** Operation and continued maintenance of the cell tower and ground equipment shelter would not generate solid waste or affect recycling goals. There would be no impact.

FINDING: No significant utility and service system impacts would be expected with the wireless telecommunications facility either directly or indirectly. For this “Utilities and Service Systems” category, the thresholds of significance would not be exceeded.

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

Discussion:

- a. No substantial evidence contained in the project record has been found that would indicate that this project would have the potential to significantly degrade the quality of the environment when using thresholds pre-established as benchmarks. These benchmarks are established by General Plan Policies, the Grading, Erosion, and Sediment Control Ordinance, Drainage Manual, and in Zoning Ordinance Sections 130.28.200 C. and 130.14.210. As conditioned, and with adherence to County permit requirements, this project would not be anticipated to have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of California history or pre-history. Any impacts from the project would be anticipated to be less than significant due to the design of the project and required standards that would be implemented.
- b. The project would not involve development or changes in land use that would result in an excessive increase in population growth. Impacts due to increased demand for public services associated with the project would be offset by the payment of fees as required by service providers to extend the necessary infrastructure services. The project would not be anticipated to contribute substantially to increased traffic in the area and the project would not require an increase in the wastewater treatment capacity of the County. Due to the small size of the proposed project, types of activities proposed, and site-specific environmental conditions, which have been disclosed in the Project Description and analyzed in Items I through XVIII, there would be no significant impacts anticipated related to agriculture resources, air quality, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, traffic/transportation, tribal cultural resources, or utilities/service systems that would combine with similar effects such that the project's contribution would be cumulatively considerable. For these issue areas, either no impacts, or less than significant impacts would be anticipated. By conforming to Zoning Ordinance regulations as well as the inherent visual screening provided by the design of a mono-pine wireless communications tower, the visual impacts of the project would be less than significant. The cumulative contribution to the viewshed would be less than significant.

As outlined and discussed in this document, as conditioned and with compliance with County Codes, this project would be anticipated to have a less than significant project-related environmental effect which would cause substantial adverse effects on human beings, either directly or indirectly. Based on the analysis in this study, it has been determined that the project would have less than significant cumulative impacts.

- c. Based on the discussion contained in this document, no potentially significant impacts to human beings are anticipated to occur with respect to potential project impacts. The project would include standard conditions of approval required for screening and buffering the ground equipment and monopine wireless communication tower with an appearance substantially consistent with the existing surrounding vegetation. Adherence to these standard conditions would be expected to reduce potential impacts to a less than significant level. As discussed in the Noise section, short term noise increases in the project area as a result of project construction and operation would be reduced by standard Conditions of Approval regarding hours and days of construction and operation. Any future development of the project by any potential future carriers would require environmental review through the Special Use Permit revision process. As conditioned, and with adherence to County Code, impacts are anticipated to be less than significant.

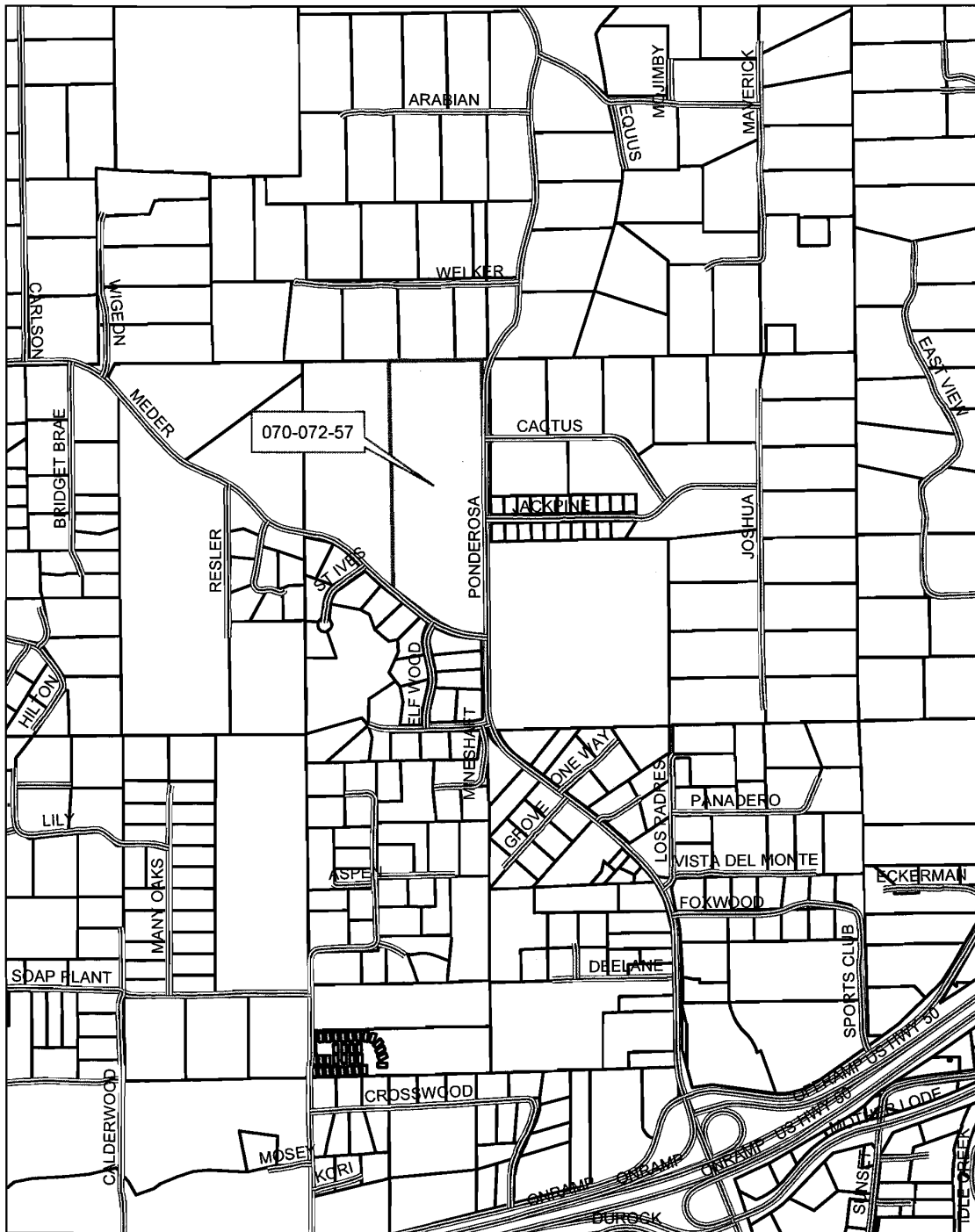
INITIAL STUDY ATTACHMENTS

- Attachment 1Location Map
Attachment 2Overall Site Plan, Site Layout, and Antenna Layout, Sheet A-1
Attachment 3*Natural Resource Review*. EBI Consulting, Burlington, MA. May 7, 2015.
Attachment 4*RF Exposure Study*, Hammet and Edison, Inc., San Francisco, CA, March 24, 2015.
Attachment 5*Noise Study*, Hammet and Edison, Inc., San Francisco, CA, July 2, 2015

SUPPORTING INFORMATION SOURCE LIST

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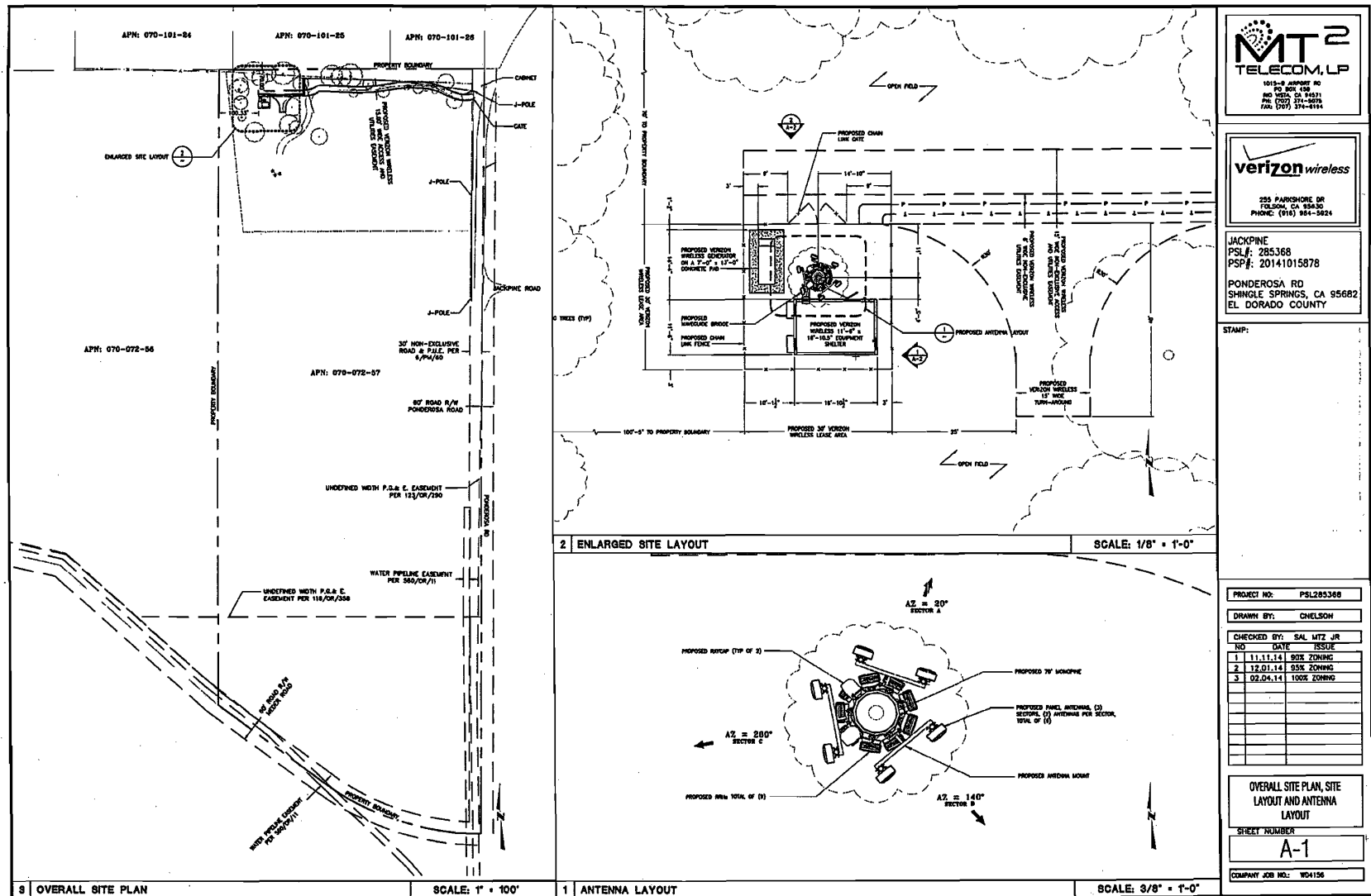
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Location Map

Attachment 1



0 500 1,000 1,500 2,000
Feet



Natural Resource Review

May 7, 2015

RECEIVED

JUN 03 2015

**EL DORADO COUNTY
DEVELOPMENT SERVICES DEPT**

RE: Proposed Communications Facility
Site Identifier: Jackpine / Ensite #23963
Site Address: Ponderosa Road, Shingle Springs, El Dorado County, CA 95682
Latitude / Longitude: 38° 40' 41.71" / 120° 56' 42.26"
EBI Project No. 611500941

EBI Consulting (EBI) has prepared the following Natural Resource Review (the Review) for the above-referenced property (herein, the Subject Property) on behalf of Celco Partnership and its controlled affiliates doing business as Verizon Wireless. This Review was completed as a part of EBI's National Environmental Policy Act (NEPA) review of a proposed communications facility, and focuses specifically on identifying potential significant impacts to federally-protected lands; federal- and state-listed protected species; Federal Emergency Management Agency (FEMA) designated 100-year flood zones; and wetlands, which may require further environmental review per Federal Communications Commission (FCC) Rules Implementing NEPA [47 CFR 1.1307(a).]

Please note that EBI prepared this Review using only readily-available online resources and visual observations made during EBI's site walk at the Subject Property on March 5, 2015. This Review is designed to provide a baseline evaluation of the potential for the proposed installation to affect on-site natural resources (including protected species) and to determine if additional review, on-site surveys, or consultation is required.

PROJECT SUMMARY

As of the date of this Review, Verizon Wireless proposes to construct a tower facility on the northern portion of the Subject Property. The tower facility will include a 70-foot monopine tower, an equipment shelter, and a backup emergency generator located within a fenced compound on a 30-foot by 30-foot lease area. Verizon Wireless plans to improve an access/utility easement from the tower area to Ponderosa Road. Please see the attached site drawings for complete details.

PROPERTY AND VICINITY DESCRIPTION

The Subject Property is an approximately 28.5-acre parcel consisting primarily of agricultural lands (i.e. non-native grasslands), oak woodlands, debris piles, and a single family home along with associated dirt/gravel roads. The area of the proposed installation (herein, the Project Site), currently consists of non-native grasslands on rocky soils.

Land north, west, and east of the Site consists of oak woodlands and rural homes; lands south consists of agricultural non-native grasslands.

Attachment 3

FEDERAL LANDS REVIEW

EBI reviewed data maintained by the United States Geological Survey (USGS; <http://nationalmap.gov>) as depicted on EBI's 'Land Resources Map' (see attached), and other available online resources as necessary, to determine if the proposed communications facility is located within one mile of certain federally-protected lands. The following table outlines EBI's review.

FEDERALLY-PROTECTED LAND Jurisdictional Agency / Resource	<i>Within Boundary / Within One Mile</i>	
	YES	NO
Wilderness Area [47 CFR §1.1307(a)(1)] National Wilderness Preservation System (NWPS) National Park Service (NPS); U.S. Forest Service (USFS); U.S. Fish and Wildlife Service (USFWS); Bureau of Land Management (BLM) http://www.wilderness.net/index.cfm?fuse=NWPS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wildlife Preserve [47 CFR §1.1307(a)(2)] National Wildlife Refuge System (NWRS) NPS; USFS; USFWS; BLM http://www.fws.gov/refuges	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wild & Scenic Rivers NPS; USFS; USFWS; BLM http://www.rivers.gov	<input type="checkbox"/>	<input checked="" type="checkbox"/>
National Scenic Trail NPS and Managing Systems and Trails Organization (MSTO) http://www.nps.gov/nrcr/programs/nts/nts_trails.html	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: None.		

Additionally, based on a review of federal lands mapping and information from the above-referenced sources, the proposed communications facility is not located on land currently under the jurisdiction of another federal agency.

PROTECTED SPECIES REVIEW

EBI reviewed online resources maintained by the USFWS (<http://ecos.fws.gov/ipac>) to identify any species that are federally-listed under the Endangered Species Act (ESA) as either endangered or threatened, and that are known to occur within the project vicinity. Based on EBI's research of online files maintained by the USFWS, seven federally-listed (i.e. endangered or threatened) species are known to occur within the project vicinity.

Additionally, based on a review of the USFWS online Critical Habitat Portal (<http://criticalhabitat.fws.gov>), the proposed communications facility is not located within a designated critical habitat.

EBI also reviewed online resources maintained by the California Department of Fish and Wildlife (<https://nrmsecure.dfg.ca.gov>) to identify any state-listed threatened and endangered species that are known to occur within USGS 24K Quad: Shingle Springs, CA 1976. Based on EBI's review of this online resource, two state protected species are known to occur within this quad.

In addition, EBI attained data from the CDFW California Natural Diversity Database (CNDDDB) (<https://map.dfg.ca.gov/bios/?bookmark=327>) to identify protected species previously identified within 2 miles of the Project Site. According to the CNDDDB, four federally protected species has been documented within a two mile radius of the Project Site. The following table summarizes species that have been documented within a two mile radius of the Project Site.

SPECIES LISTING Common Name (Scientific Name)	FEDERAL/ STATE STATUS	HABITAT DESCRIPTION	DETERMINATION OF EFFECT
California red-legged frog (<i>Rana draytonii</i>)	FT / NL	Breeding typically occurs after large rainfalls in late winter/early spring. Usually occurs in or near quiet permanent water of streams, marshes, ponds, lakes, and other quiet bodies of water. In summer, frogs aestivate in small mammal burrows, leaf litter, or other moist sites within 2 miles of a water body.	No Effect –the CNDDDB map shows no occurrences within 2 miles of the Site, the Site does not support suitable breeding or aestivation habitat
Knight Pine Hill Ceanothus (<i>Ceanothus roderickii</i>)	FE / SR	This species occurs in openings in chaparral communities on gabbro- or serpentine-derived soils.	No Effect – No chaparral communities or serpentine derived soils present.
Layne's butterweed (<i>Packera layneae</i>)	FT / SR	This species occurs in chaparral communities primarily on gabbro-derived soils; occasionally on serpentine.	No Effect – No chaparral communities or serpentine derived soils present.
El Dorado bedstraw (<i>Galium californicum</i> ssp. <i>sierrae</i>)	FE / SR	This species occurs in oak and oak-pine woodland communities on gabbro-derived soils.	No Effect – No oak or oak-pine communities present.
Stebbins' morning-glory (<i>Calystegia stebbinsii</i>)	FE / SE	This species occurs in mixed chaparral communities on gabbro-derived and serpentine-derived soils. Fire adapted: seeds need heat or scarification for germination; plants grow well in burned-over areas, but are eliminated when surrounding chaparral grows tall enough to shade them.	No Effect – No chaparral communities or serpentine derived soils present. In addition, the Site is fire suppressed.
Pine Hill flannelbush (<i>Fremontodendron californicum</i> ssp. <i>decumbens</i>)	FE / SR	This species occurs on tops of rocky ridges and on scattered rock outcrops of gabbro in chaparral communities or in the ecotone between chaparral and woodland. Heat (fire) is needed to scarify seed coats for germination and to clear the area for seedling development.	No Effect – No chaparral communities or serpentine derived soils present. In addition, the Site is fire suppressed.
Valley Elderberry Longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FE / NL	This species is primarily found in riparian wooded areas where elderberries occur, but it has occasionally been found with these plants in more upland habitats.	No Effect – No elderberry shrubs occur within the vicinity of the Site.
FE = Federal Endangered; FT = Federal Threatened; FP = Federal Proposed; CH = Critical Habitat SE = State Endangered; ST = State Threatened; SP = State Proposed; SR = Rare			

Please note that identified protected species which require strictly aquatic habitats (e.g. fish) were not included in the table above as no such habitat is present at the proposed Project Site.

As noted in the table above, suitable habitats capable of supporting the listed species were not noted at the proposed Project Site. As such, the proposed installation is anticipated to have 'No Effect' on the identified species.

Migratory Birds

Consideration should also be given to the potential impacts of the construction and ongoing operation of the proposed installation on species protected under the Migratory Bird Treaty Act (MBTA) and ESA. On September 14, 2000, the USFWS issued their *Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning* (see http://www.fws.gov/habitatconservation/comm_tow_guidelines.pdf). The USFWS *Interim Guidelines* are considered voluntary federal recommendations; however, EBI recommends they be followed to the extent feasible to minimize and/or avoid potential adverse impacts to migratory birds.

The proposed tower will be a 70-foot monopine tower with no lighting. As such, it meets most of the USFWS's tower siting and design recommendations and is therefore not anticipated to adversely affect migratory birds.

FLOOD ZONE REVIEW

Based on EBI's review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (www.fema.gov; Map# 06017C0750E), the proposed Project Site is located within an area identified as Zone X, and therefore is not located within a 100-year floodplain.

WETLANDS REVIEW

EBI did not observe any readily-identifiable wetlands or wetland characteristics (e.g. standing water, hydrophytic vegetation, soil saturation and inundation, drainage patterns and sediment deposition, watermarks and drift lines on trees and vegetation, or water stained leaves). A review of the USFWS National Wetlands Inventory (NWI) map (see attached) did not identify any wetlands in the immediate vicinity of the Project Site.

EBI also reviewed the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) for the Project Site and immediate vicinity. According to EBI's review, soils at the Project Site consist of Rescue very stony sandy loam, 3 to 15 percent slopes. This well drained soil supports a water table more than 80 inches below the soil surface and depth to restrictive layer between 55 to 59 inches. This soil is not listed as hydric by the NRCS (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>).

Based on EBI's review as summarized above, the proposed communications facility installation is not anticipated to impact identified wetlands.

FINDINGS AND CONCLUSIONS

Based on the results of EBI's review as summarized herein, the proposed communications facility is:

- Anticipated to have 'no effect' on listed protected species associated or critical habitats;
- Not within the boundaries of, or within one mile of federally-protected land (i.e. wildlife preserves, wilderness areas, etc.);
- Not within the boundaries of a FEMA-designated 100-year flood zone;
- Not anticipated to result in a significant change to surface features.

EBI is an independent contractor, not an employee of either the property owner or the project proponent, and its compensation was not based on the findings or recommendations made in this Review or on the closing of any business transaction.

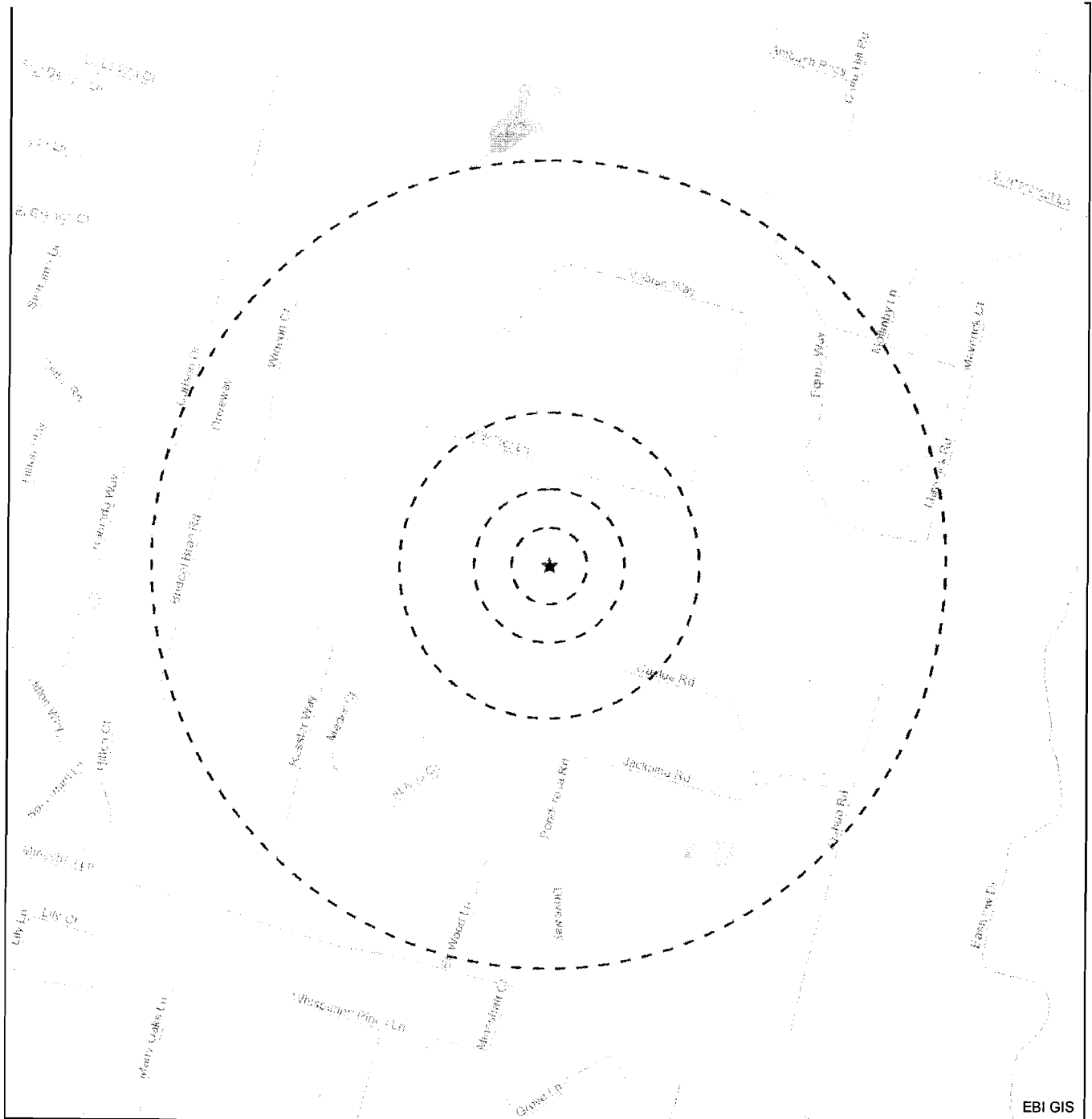
Sincerely,

Mr. Tony Maguire, PWS
Senior Wetland Biologist

Ms. Emily Kitchen
Senior Scientist

Attachments: Figures & Drawings
 Photographs
 Species Review Documentation
 Supporting Documentation
 Qualifications

FIGURES & DRAWINGS



Legend

- ★ Project Site
- Site Radius at 250', 500', 1000' and 1/2 mile

Source: Selected data from
ESRI, EBI & USGS



Date: 4/3/2015

Figure 1: Site Location Map



**ENSITE #23963 (285368) JACKPINE
PONDEROSA ROAD
SHINGLE SPRINGS, CA 95682**

PN: 6115000941





Legend

- ★ Project Site
- Site Radius at 250', 500', 1000', 1/2, 3/4 & 1 mile

Source: Selected data from
ESRI, EBI & USGS

Date: 5/4/2015

USGS 24K Quad: Shingle Springs, CA 1976

Figure 2 - Topographic Map

**ENSITE #23963 (285368) JACKPINE
PONDEROSA ROAD
SHINGLE SPRINGS, CA 95682**

0 500 1,000 2,000 3,000
Feet

PN: 6115000941

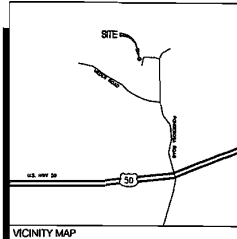
EBI Consulting
environmental | engineering | due diligence



APPROVED BY		
APPROVAL:	SIGNATURE:	DATE:
LANDLORD:		
BY ENGINEER:		
LEADING MANAGER:		
ZONING MANAGER:		
CONSTRUCTION MANAGER:		
REAL ESTATE SPECIALIST:		
OPERATIONS MANAGER:		
TRANSPORT MANAGER:		

[illegible]

GENERAL NOTES



FROM: 235 PAFESHORE DR FOLSOM, CA 95630
GET ON US-50 E FROM PAFESHORE DR AND PRAIRIE CITY RD
FOLLOW US-50 E TO S SHINGLE RD IN SHINGLE SPRINGS. TAKE THE
DOT TOWARD SOUTH SHINGLE ROAD FROM US-50 E
DRIVE TO PONDEROSA RD
TURN LEFT ONTO S SHINGLE RD (SIGNS FOR US-50 W/SACRAMENTO)
CONTINUE STRAIGHT ONTO PONDEROSA RD
3840 WELFARE LN SHINGLE SPRINGS, CA 95662

DIRECTIONS

DIRECTIONS

ALL WORKS AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITY. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PREVENT WORK NOT CONFORMING TO THE FOLLOWING LISTED CODES:

2011 CALIFORNIA ADMINISTRATIVE CODE (NCL, TITLES 14 & 25)	2012 INTERNATIONAL BUILDING CODE (IBC)
2011 CALIFORNIA BUILDING CODES	2012 INTERNATIONAL FIRE CODE (IFC)
2011 CALIFORNIA MECHANICAL CODES	2012 UNIFORM PLUMBING CODE (UPC)
2011 CALIFORNIA PLUMBING CODES	2012 UNIFORM MECHANICAL CODE (UMC)
2011 CALIFORNIA ELECTRICAL CODES	2012 SOLID WASTE CODE (SWC)
MSB / DA-221 G	CITY / COUNTY ORDINANCES

ALONG WITH ANY OTHER APPLICABLE LOCAL AND STATE LAWS AND REGULATIONS.

APPROVALS:

APPLICABLE CODES

SITE NAME:	JACKPINE
PSL#	285348
PG#	20141015678
SITE ADDRESS:	PONDGROSA RD SHOULS, SPANISH CO 95462
APPLICANT:	VERLON WHEELS 255 PARKSHORE DR FOLSOM, CA 95620 PHONE: (916) 984-5924
PROPERTY OWNER:	DAVE DUTRA FARM II LLC

WENTON CONST. WORK: LARRY DOBBS
(PHONE) (816) 508-3020

WENTON REAL ESTATE SPECIALIST: JOHANNA WANG
PHONE: (825) 278-8781

VENDOR OF: DOUG PIERCE
PHONE: (818) 357-2515
VENDOR C#: ALAN HENNE
CREDIT: 100%
CITY: VAN NUYS
STATE: CA
COUNTRY: USA
CITY: VAN NUYS
STATE: CA
COUNTRY: USA

PHONE: (818) 225-5874
JENNIFER ROSSON
PHONE: (775) 217-8475

A.P.N. 070-072-57
CURRENT ZONING: AGRICULTURAL
SUBDIVISION: D. 003400 COUNTY

PROJECT SUMMARY

672 TELECOM
3760 COMMERCIAL DR
WEST SACRAMENTO, CA 95691
PH: 208-601-3361
FAX: 916-378-8358
CONTACT: SAL MARTINEZ

GILBERT LABRÉ, AIA ARCHITECT
CA LIC. NO. C7880
EMAIL: gnl@earthlink.net

PROJECT TEAM

INSTALLATION OF A 11'-6" x 18'-10.5" FIREBOMB
EQUIPMENT SHELTER, SLOW COMBUSTION GENERATOR ON A 7'-0"
x 13'-0" CONCRETE SLAB, WAREHOUSE BLDG. WITH CANAL
CABLES AND AN ANTENNA ARRAY CONSISTING OF (2)
SECTORS, (1) ANTENNAS PER SECTOR, TOTAL OF (6)
ANTENNAS, (8) BAYS AND (2) RAYCAPS ON A PROPOSED 70'
MONOPINE, ALL ENCLOSED IN A PROPOSED 30'-0" x 30'-0"
FIXED COMPOUND.

PROJECT DESCRIPTION

[illegible]

MT
TELECOM, LP
1015-B AIRPORT RD
PO BOX 658
IND HEIGHTS, OH 44131
PH: (216) 371-5870
FAX: (216) 371-8150

verizonwireless
255 PARKSHORE DR
FOLSOM, CA 95630
PHONE: (916) 984-3024

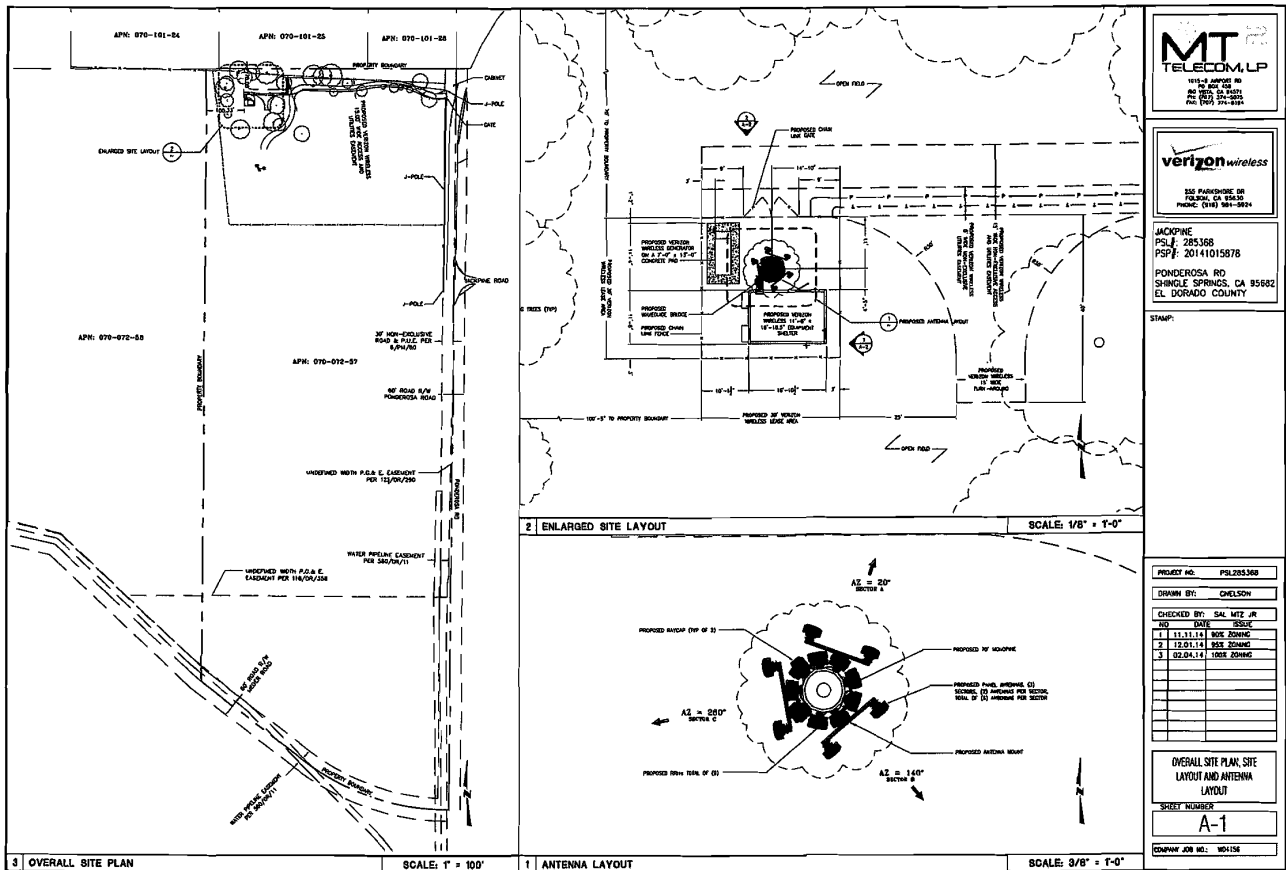
JACKPINE
PSL#: 285368
PSP#: 20141015878
PONDEROSA RD
SHINGLE SPRINGS, CA 95682
EL DORADO COUNTY

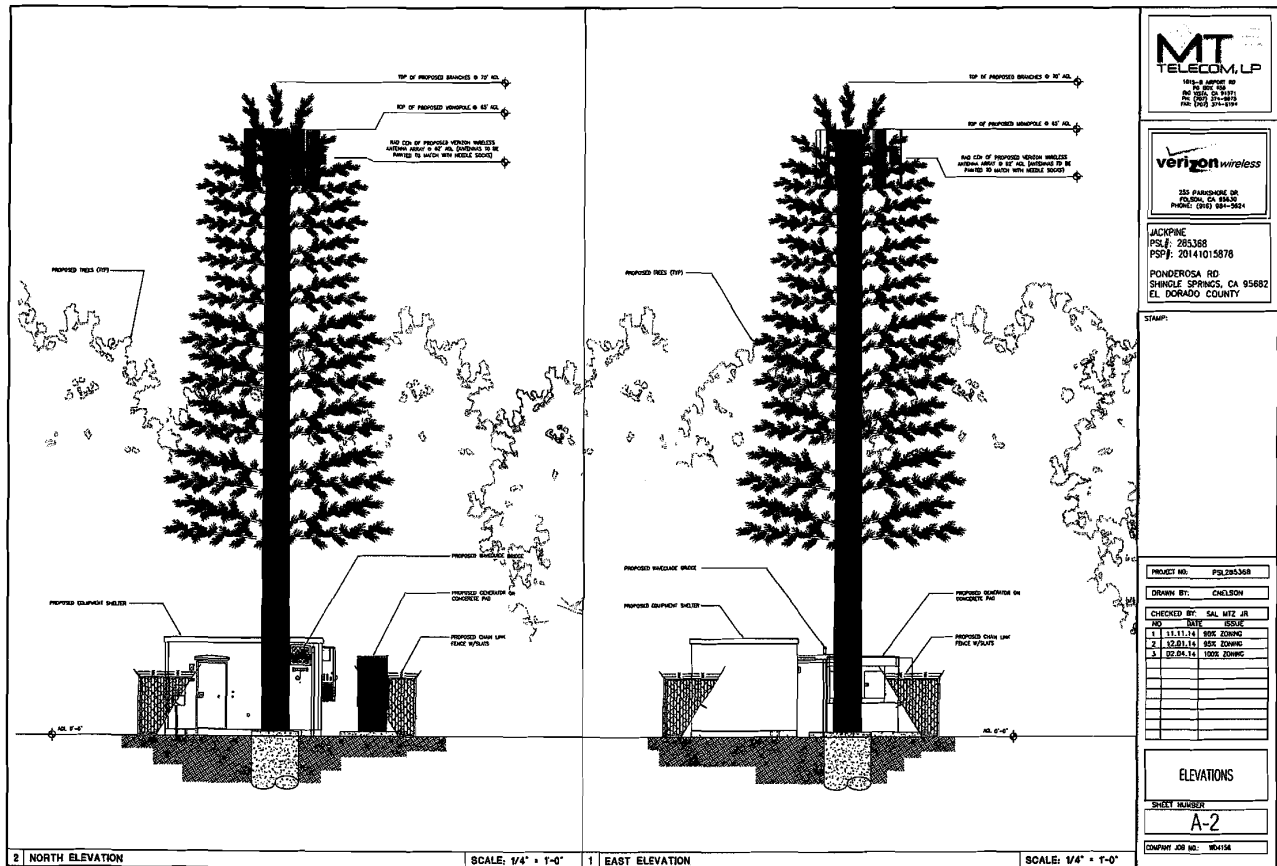
STAMP

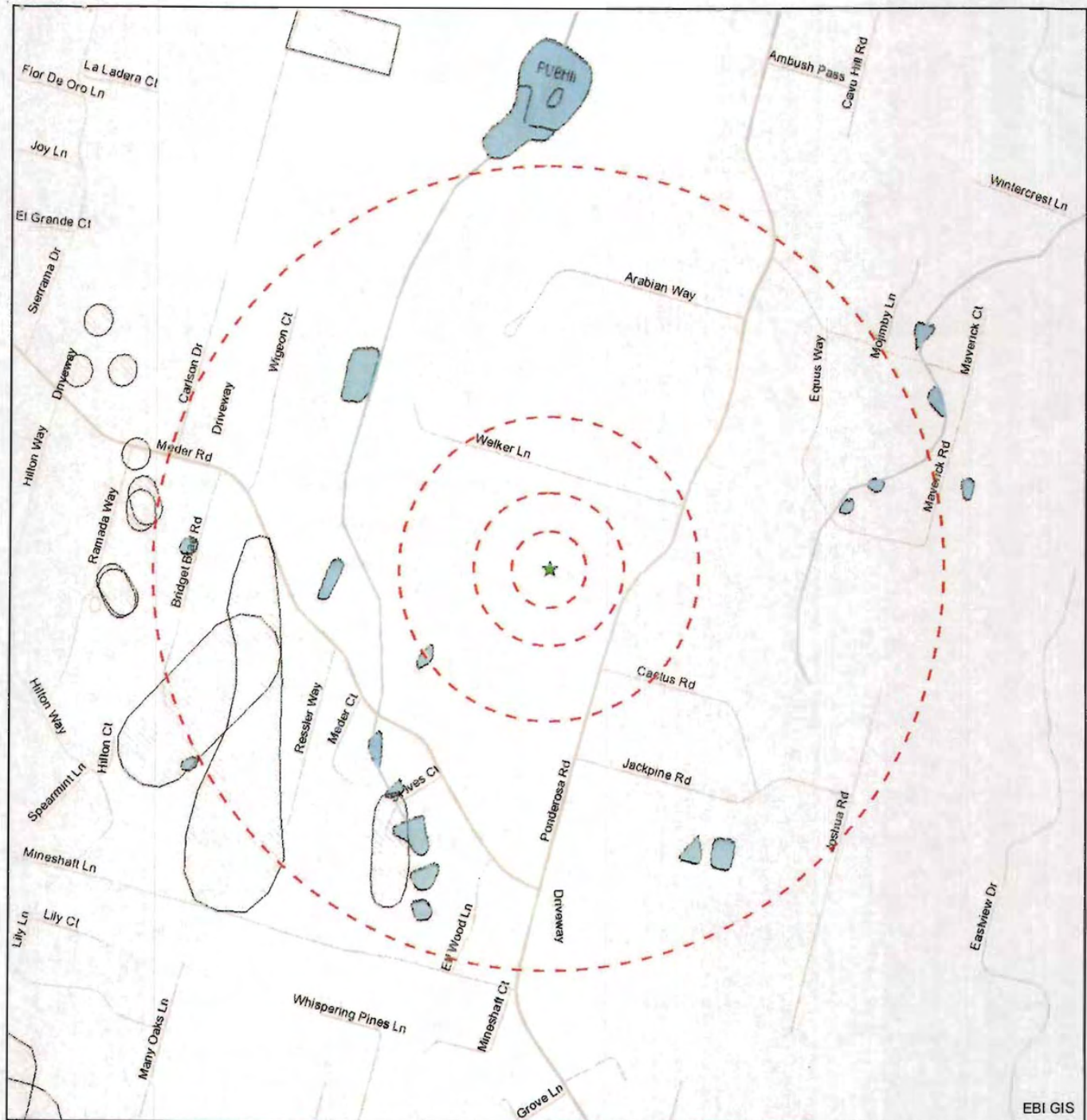
[illegible]

TITLE SHEET

SHEET NUMBER
T-1
COMPANY JOB NO.: 60-1158







EBI GIS

Legend

★ Project Site

Site Radius at 250', 500', 1000' and 1/2 mile

Source: Selected data from ESRI & EBI.
See associated map legend for more details



Date: 5/4/2015

*See associated legend for additional map symbology

Land Resources Map

**ENSITE #23963 (285368) JACKPINE
PONDEROSA ROAD
SHINGLE SPRINGS, CA 95682**










PN: 6115000941

EBI Consulting
environmental | engineering | due diligence

Land Resources Legend

Scenic Parkways, Rivers & Trails

-  National Scenic Parkway
-  National Park Service Trail / Appalachian Trail
- AZ - BLM Historic Trail
- CT - DEP Trail
- MT - Lewis & Clark Trail
- NY - Trails

-  NY - Scenic Landmark Area
-  NY - Statewide Area of Scenic Significance
-  National Wild, Scenic River
-  CA - Wild Scenic River
-  MT - Wild Scenic River

Sources: National Park Service http://www.nps.gov/gis/data_info/; Bureau of Land Management <http://www.blm.gov/wo/st/en.html>; CT DEP http://www.ct.gov/deep/cwp/view.asp?a=2698&q=323342&deepNav_GID=1707%20; NY GIS Clearinghouse <http://gis.ny.gov/>; National W & S Rivers <http://www.rivers.gov/rivers/mapping-gis.php>; Montana GIS <http://nris.mt.gov/gis/>; California Atlas <http://atlas.ca.gov/>









State Conservation, Lands & Wildlife Areas

-  CT - DEP Property
- CO - Public Access Wildlife Area
- FL - Wildlife Management Area
- MT - National Wildlife Refuge
- NH - WMNF Management Area
- ME - Conservation Land
- TN - Wildlife Resource Land
- TX - State Park or Wildlife Mgt Area
-  TX - Audubon Sanctuary
-  CT - DEP Municipal and Open Space
- NH - Conservation Land
- NY - DEC State Lands
-  NY - Agricultural District

Sources: CT DEP http://www.ct.gov/deep/cwp/view.asp?a=2698&q=323342&deepNav_GID=1707%20; CO Wildlife Space http://ndis.nrel.colostate.edu/ftp/ftp_response.asp; Florida Fish and Wildlife www.MyFWC.com; Montana GIS <http://nris.mt.gov/gis/>; NH GRANIT <http://www.granit.unh.edu/data/download/freedata>; ME GIS <http://megis.maine.gov/batolog>; TN GIS <http://www.state.tn.us/environmen/parks/gis/data/>; TX GIS <http://www.glo.state.tx.us/nri/data/index.html>; NY GIS Clearinghouse <http://gis.ny.gov/>

US FWS NWI

Wetland Type

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Other
-  Riverine

State Endangered Threatened & Protected Species

-  AZ - Areas of Environmental Concern
-  CA - Spotted Owl Territory
-  CA - NDDDB T & E Species
- CT - NDDDB Area Feature
-  CT - DEP Critical Habitat
- MA - NHESP Estimated Habitats of Rare Wildlife
- TX - Protected Species
-  MA - NHESP Priority Habitats of Rare Species
-  FL - Conservation Species
- MA - NHESP Certified Vernal Pool
- ME - Candidate Vernal Pool
-  NY - Important Bird Area
- TX - Ecologically Unique Rivers Streams

Sources: AZ BLM Page http://www.blm.gov/az/st/en/prog/maps/gis_files.html; CNDDDB <http://www.dfg.ca.gov/biogeodata/cnddb/>; CT DEP http://www.ct.gov/deep/cwp/view.asp?a=2698&q=323342&deepNav_GID=1707%20; MAGIS <http://www.mass.gov/mgis/laylist.htm>; TX GIS <http://www.glo.state.tx.us/nri/data/index.html>; Florida Fish and Wildlife www.MyFWC.com; NY GIS Clearinghouse <http://gis.ny.gov/>

Federal & National Coverage Data Layers

-  USFWS Critical Habitat
-  USFWS Critical Habitat Area
-  National Park Service
-  National Wildlife Area or Refuge
-  Federally Owned Land
-  National Wilderness Areas
-  National Park Service Site
- FEMA Q3 Flood Zone 2006
-  500-year inundation area.
-  100-year inundation area.
-  100-year inundation area with velocity hazard.
-  Undetermined but possible flood hazard area.
-  Floodway area, including watercourse extent.
- No Flood Data No Flood Data Available

Sources: National Park Service http://www.nps.gov/gis/data_info/; USFWS <http://critic.hab.fws.gov/>; National Park Service <http://science.nature.nps.gov/inrdta/index.cfm>; The National Map <http://nationalmap.gov/>; FEMA - Q3 Flood Data <https://msc.fema.gov>



1.

Proposed Project Site area facing west



2.

Proposed Project Site area facing north



3. Proposed Project Site area facing south



4. Proposed Project Site area facing east



5. Debris pile south of the proposed Project Site, facing south



6. Debris pile south of the proposed Project Site, facing east



7. Debris pile south of the proposed Project Site, facing east



8. Utility pole and Telco box adjacent to Ponderosa Road and Subject Property gate

SPECIES REVIEW DOCUMENTATION

United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713



Consultation Code: 08ESMF00-2015-SLI-0442

May 04, 2015

Event Code: 08ESMF00-2015-E-01907

Project Name: Jackpine / Ensite #23963

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2)



United States Department of Interior
Fish and Wildlife Service

Project name: Jackpine / Ensite #23963

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2015-SLI-0442

Event Code: 08ESMF00-2015-E-01907

Project Type: COMMUNICATIONS TOWER

Project Name: Jackpine / Ensite #23963

Project Description: 70-foot monopole communication tower and associated support equipment.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

05/04/2015 03:06 PM



United States Department of Interior
Fish and Wildlife Service

Project name: Jackpine / Ensite #23963

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-120.94518050551413 38.678386632890195, -120.94516441226006 38.67823168338674, -120.9432117640972 38.67823168338674, -120.94319567084312 38.67842013544143, -120.94518050551413 38.678386632890195)))

Project Counties: El Dorado, CA

05/04/2015 03:06 PM



United States Department of Interior
Fish and Wildlife Service

Project name: Jackpine / Ensite #23963

Endangered Species Act Species List

There are a total of 9 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog (<i>Rana draytonii</i>) Population: Entire	Threatened	Final designated	
Fishes			
Delta smelt (<i>Hypomesus transpacificus</i>) Population: Entire	Threatened	Final designated	
steelhead (<i>Oncorhynchus (=salmo) mykiss</i>) Population: Northern California DPS	Threatened	Final designated	
Flowering Plants			
El Dorado bedstraw (<i>Galium californicum ssp. sierrae</i>)	Endangered		
Layne's butterweed (<i>Senecio layneae</i>)	Threatened		
Pine Hill ceanothus (<i>Ceanothus roderickii</i>)	Endangered		
Pine Hill flannelbush (<i>Fremontodendron californicum ssp.</i>	Endangered		

05/04/2015 03:06 PM



United States Department of Interior
Fish and Wildlife Service

Project name: Jackpine / Ensite #23963

<i>decumbens)</i>			
Stebbins' morning-glory (<i>Calystegia stebbinsii</i>)	Endangered		
Insects			
Valley Elderberry Longhorn beetle (<i>Desmocerus californicus dimorphus</i>) Population: Entire	Threatened	Final designated	

15-1215 E 79 of 108, 05/04/2015 03:06 PM



United States Department of Interior
Fish and Wildlife Service

Project name: Jackpine / Ensite #23963

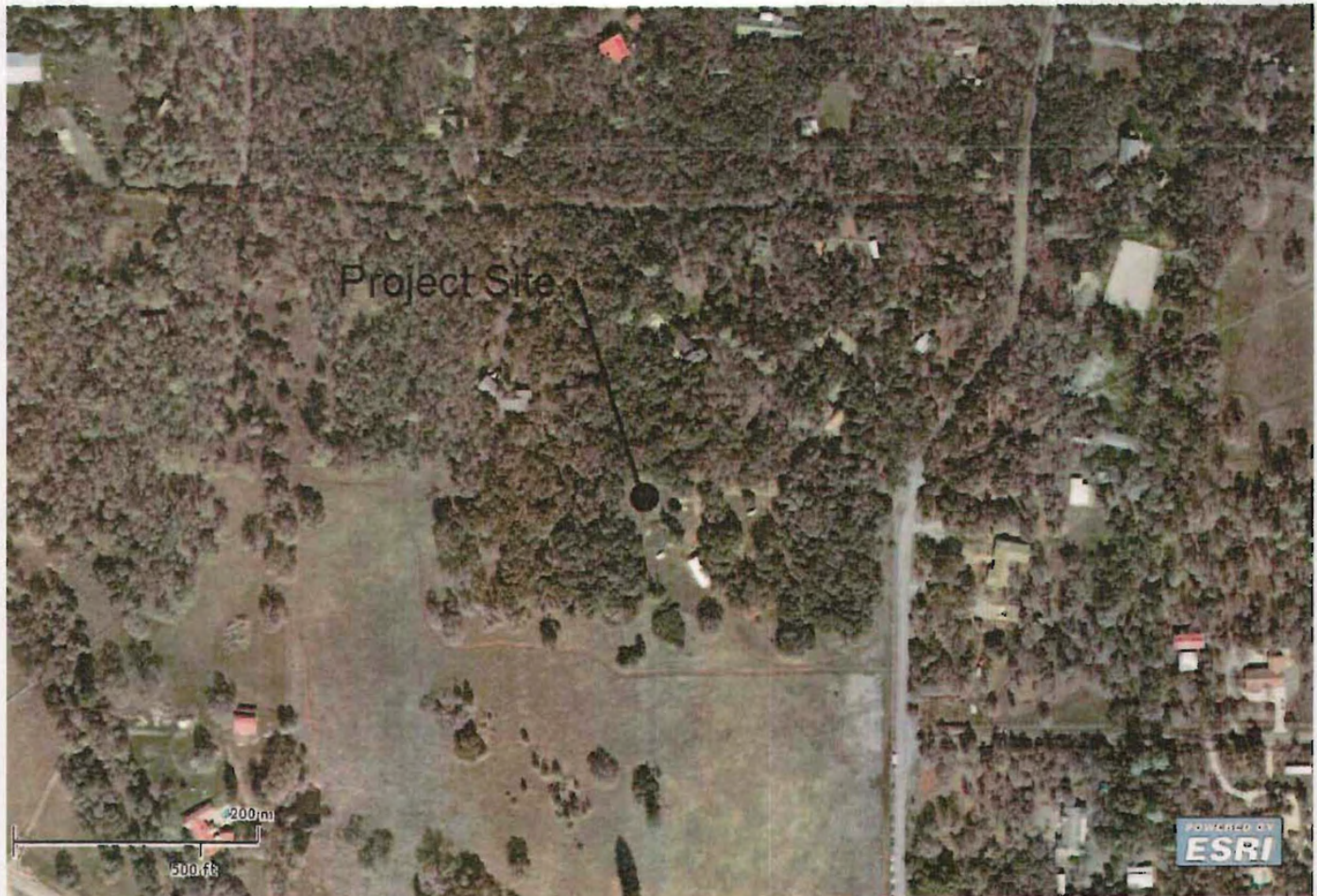
Critical habitats that lie within your project area

There are no critical habitats within your project area.

05/04/2015 03:06 PM

USFWS Critical Habitat

Jackpine / Ensite #23963



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Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database

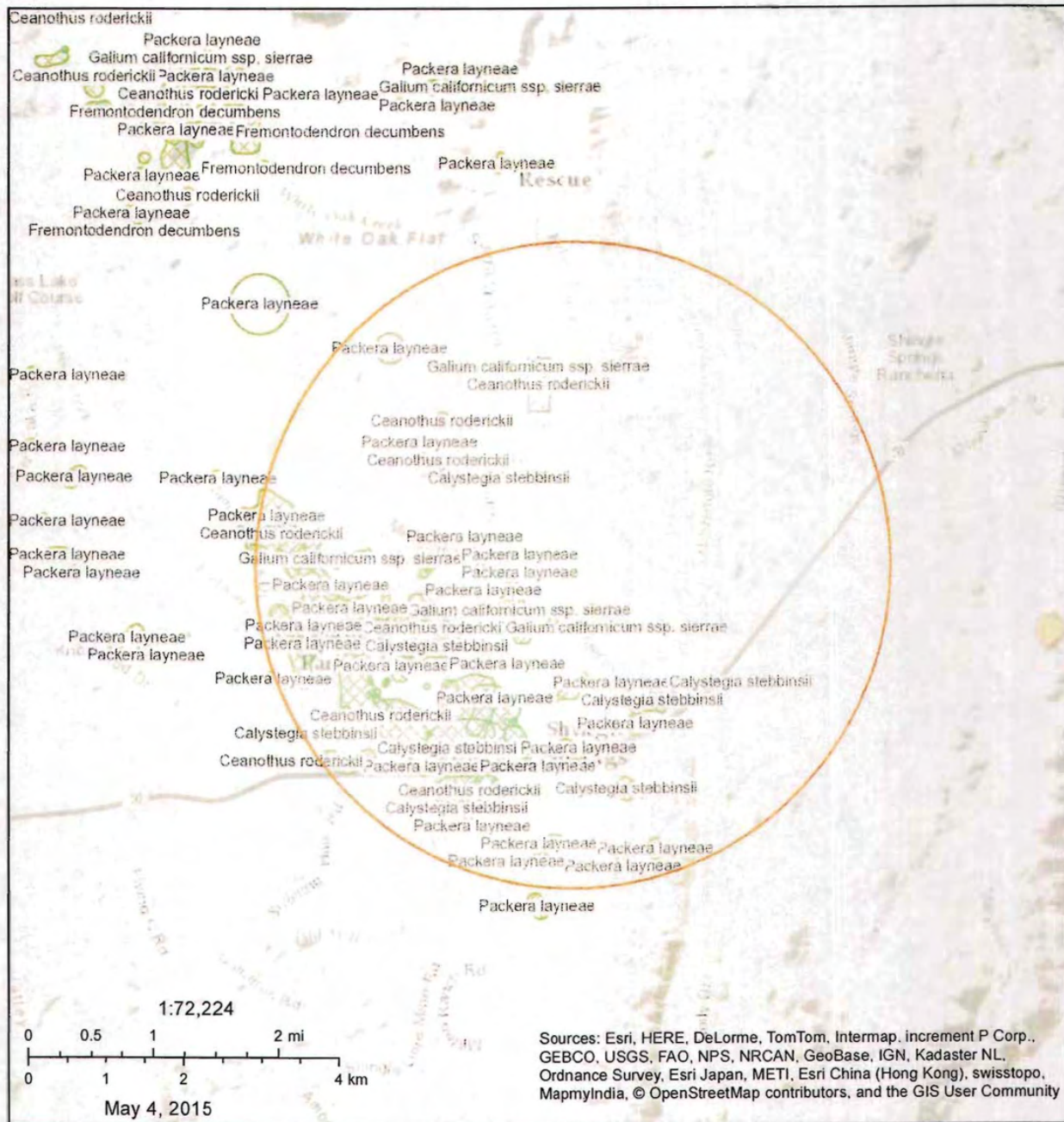


Query Criteria: Quad is (Shingle Springs (3812068))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
bank swallow <i>Riparia riparia</i>	ABPAU08010	None	Threatened	G5	S2	
Bisbee Peak rush-rose <i>Crocianthemum suffrutescens</i>	PDCIS020F0	None	None	G2Q	S2	3.2
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G3G4	S3S4	SSC
El Dorado bedstraw <i>Galium californicum ssp. sierrae</i>	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
El Dorado County mule ears <i>Wyethia reticulata</i>	PDAST9X0D0	None	None	G2	S2	1B.2
fisher - West Coast DPS <i>Pekania pennanti</i>	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
Jepson's onion <i>Allium jepsonii</i>	PMLIL022V0	None	None	G1	S1	1B.2
Layne's ragwort <i>Packera layneae</i>	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pine Hill ceanothus <i>Ceanothus roderickii</i>	PDRHA04190	Endangered	Rare	G1	S1	1B.2
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	PMLIL0G020	None	None	G3	S3	1B.2
Stebbins' morning-glory <i>Calystegia stebbinsii</i>	PDCON040H0	Endangered	Endangered	G1	S1	1B.1

Record Count: 12

Map of Project Area



- | | | |
|-----------------------|----------------------------------|----------------------------------|
| Plant (80m) | Animal (circular) | Aquatic Comm. (non-specific) |
| Plant (specific) | Terrestrial Comm. (80m) | Aquatic Comm. (circular) |
| Plant (non-specific) | Terrestrial Comm. (specific) | Multiple (80m) |
| Plant (circular) | Terrestrial Comm. (non-specific) | Multiple (specific) |
| Animal (80m) | Terrestrial Comm. (circular) | Multiple (non-specific) |
| Animal (specific) | Aquatic Comm. (80m) | Multiple (circular) |
| Animal (non-specific) | Aquatic Comm. (specific) | Sensitive EO's (Commercial only) |

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Author: Tony Maguire
Printed from <http://bios.dfg.ca.gov>

Verizon Wireless NEPA Program

NEPA Regulatory Compliance (NRC)

U.S. Fish and Wildlife Service (USFWS) – California Offices Only

California Department of Fish and Game (CDFG)

Informal Consultation Protocol

March 23, 2012

NEPA Consultation Background

The Federal Communications Commission (FCC) is required to review proposed projects that may affect the quality of the human environment pursuant to the National Environmental Policy Act (NEPA) of 1969. The FCC developed rules for implementing NEPA which are found in the Code of Federal Regulation at 47 CFR 1.1301-1319. Verizon Wireless (VZW) must comply with the FCC rules by reviewing proposed projects for effects to both natural and cultural resources that may be deemed to have a significant and/or harmful impact.

The FCC has published an Environmental Checklist that defines the level of due diligence expected when reviewing a proposed project for effects to species protected under the Endangered Species Act of 1973 (ESA). The VZW NEPA Program requirements ensure compliance with the FCC NEPA rules and USFWS Guidelines.

U.S. Fish and Wildlife Service (USFWS) Consultation Requirements

Under the ESA, it is the responsibility of VZW to determine if a proposed project “may affect” endangered, threatened, or protected species, or their critical habitat. If there is an impact, VZW must consult with the USFWS and/or defined state agencies for guidance, potential mitigation or approval on the project.

California Department of Fish and Game (CDFG) Consultation Requirements

Under the California Environmental Quality Act (CEQA), as posted on the CDFG website and as recorded in written responses from various agents of CDFG, federal projects are not subject to CEQA and informal consultation is not required with the CDFG. Consultation with CDFG is initiated by local lead agencies with jurisdiction over the project area in local government review. Therefore, informal consultation will no longer be completed at the State level within the NEPA Program.

Specific Consultation Requirements for the USFWS

The outline below clarifies how these rules will apply going forward to the USFWS Informal Consultation Protocol in the State of CA:

Scenarios When Consultation **Will Not** Be Required

1. ***No Effect Finding - If no listed or proposed threatened or endangered species or designated or proposed critical habitats are present in the county or counties where the proposed project is located, the consultant must –***
 - a. Document the basis for the determination of no listed or proposed protected species or designated or proposed critical habitats within the county (or counties) of the proposed project, and
 - b. Document the determination that the proposed project will have no effect on protected species along with the qualifications of the individual(s) making the determination, and
 - c. Compile the materials (with citations) that formed the basis for the determination (e.g., maps or lists from relevant USFWS databases).
 - i. If a letter from USFWS was received indicating that there would be no effect, a copy of the letter so indicating should become part of the administrative record for the proposed project.
2. ***No Effect Finding - If listed or proposed threatened or endangered species or designated or proposed critical habitats are present in the county or counties where the proposed project is located and would not be affected, the consultant must –***
 - a. Document the basis for the determination that there would be “no effect” on listed or proposed threatened or endangered species or designated or proposed critical habitats within the county (or counties) of the proposed project, and
 - b. Document the qualifications of the individual(s) making the determination, and
 - c. Compile the materials (with citations) that formed the basis for the determination (e.g., maps or lists from relevant USFWS databases).
 - i. If a letter was received from USFWS indicating that there would be no effect, a copy of the letter so indicating should become part of the administrative record for the proposed project.
 - ii. If the consultant did not receive a letter from USFWS indicating that there would be no effect, provide a copy of any informal biological assessment prepared by a qualified biologist supporting the “no effect” determination. The names and qualifications of the biologist(s) who prepared the informal biological assessment along with any USFWS staff who may be familiar with its contents

should be documented as part of the administrative record for the proposed project.

Scenarios When Consultation **Will** Be Required

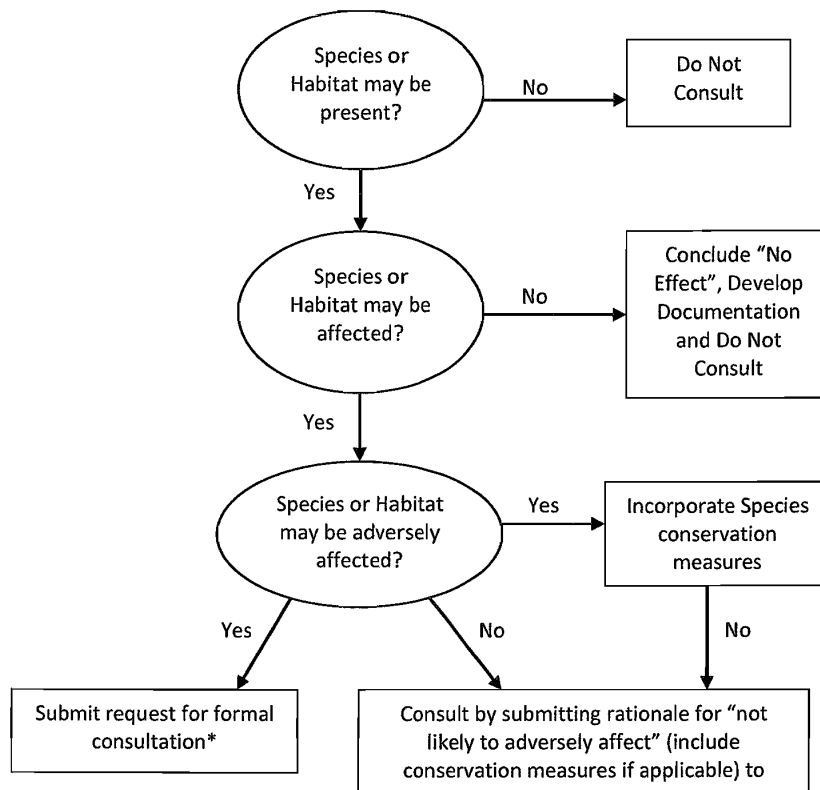
1. **May Effect – Not Likely to Adversely Affect** - *If listed or proposed threatened or endangered species or designated or proposed critical habitats are present in the county or counties where the proposed project is located and the project “may affect, but is not likely to adversely affect”, the consultant must –*
 - a. Document the basis for the determination of “not likely to adversely affect” listed or proposed threatened or endangered species or designated or proposed critical habitats within the county (or counties) of the proposed project, and
 - b. Document the qualifications of the individual(s) making the determination, and
 - c. Complete informal consultation with the USFWS following the appropriate NEPA Program procedures through EnSite and based on Exhibit 1 (as follows).

When to STOP and “Red Flag” the Site in EnSite for HQ NEPA Regulatory Compliance (NRC) Guidance

1. **May Effect – Likely to Adversely Affect** – *VZW will not allow consultation to proceed without first working with HQ NRC and the impacted region to determine potential project changes that may reduce the affect and subsequent risk/costs/impacts to the business if consultation is initiated with the “May Effect” finding.*

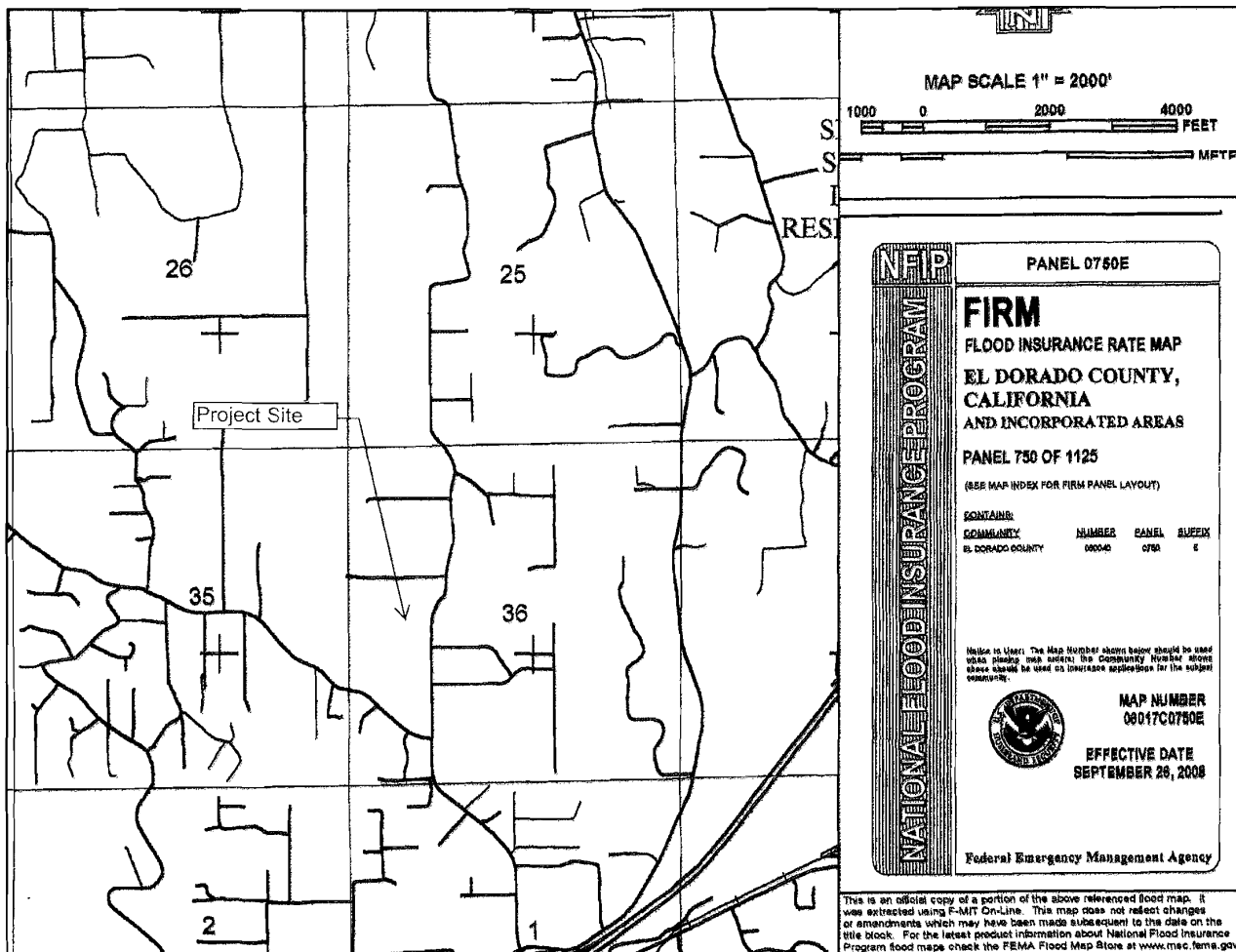
When in doubt regarding application of this protocol, please contact NEPA Program Management for assistance (Stephanie Gooch). If any regulatory agency inquiries are received regarding this consultation process, report the contact to HQ NRC immediately (Robin Haeffner or Sharon Yeager).

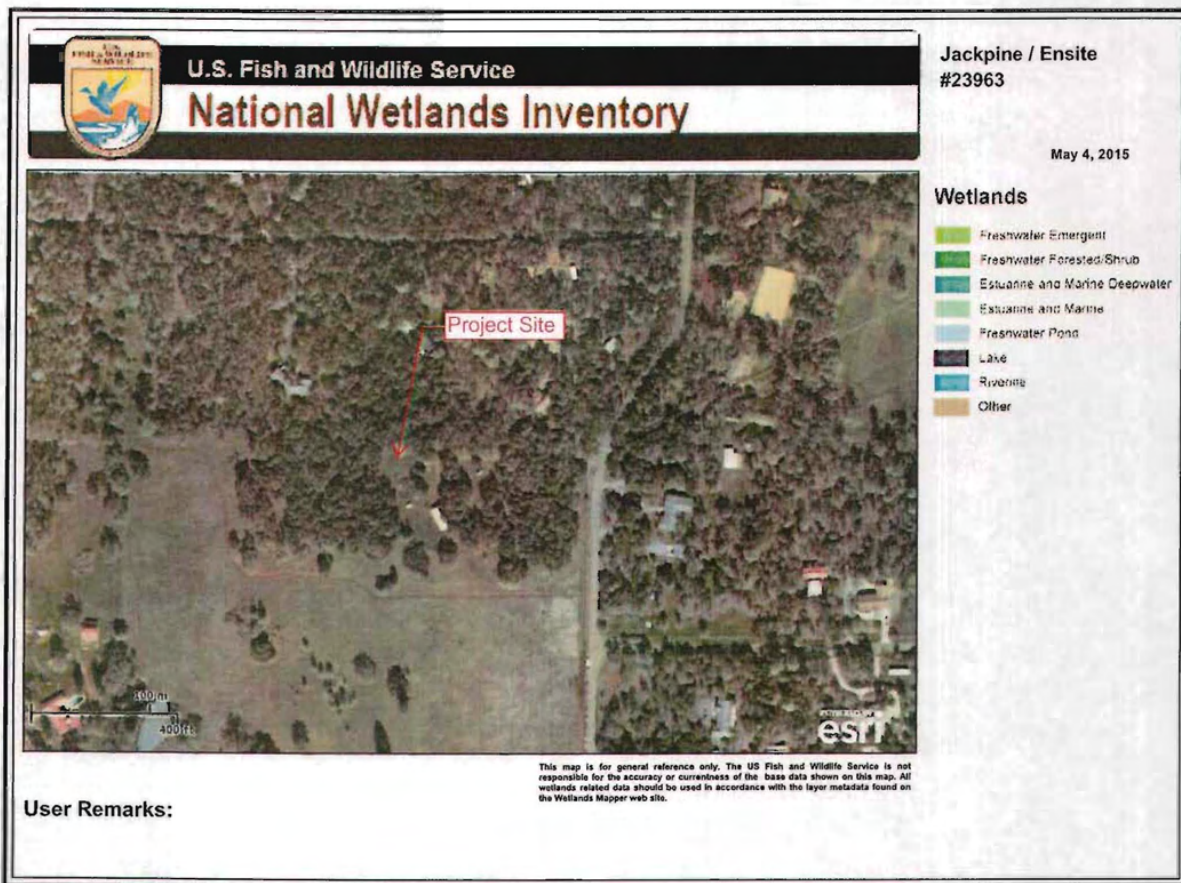
Exhibit 1



*"May Affect" requiring formal consultation requests require approval from NRC. A Red Flag must be raised in EnSite and NPM and NRC must be engaged.

SUPPORTING DOCUMENTATION







United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **El Dorado Area, California**

Jackpine / Ensite #23963



May 4, 2015



Map Unit Legend

El Dorado Area, California (CA624)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RfC	Rescue very stony sandy loam, 3 to 15 percent slopes	0.7	100.0%
Totals for Area of Interest		0.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

El Dorado Area, California

RfC—Rescue very stony sandy loam, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: hj10
Elevation: 800 to 2,000 feet
Mean annual precipitation: 30 inches
Mean annual air temperature: 59 degrees F
Frost-free period: 200 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Rescue and similar soils: 85 percent
Argonaut and similar soils: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rescue

Setting

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

Typical profile

H1 - 0 to 10 inches: very stony sandy loam
H2 - 10 to 34 inches: sandy clay loam
H3 - 34 to 55 inches: coarse sandy loam
H4 - 55 to 59 inches: weathered bedrock

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: 55 to 59 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: Loamy (R018XD075CA)

Description of Argonaut

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder

Custom Soil Resource Report

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Residuum weathered from andesite and/or residuum weathered from metasedimentary rock

Typical profile

H1 - 0 to 10 inches: gravelly loam

H2 - 10 to 30 inches: clay

H3 - 30 to 34 inches: weathered bedrock

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: 30 to 34 inches to paralithic bedrock

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: D

QUALIFICATIONS

SUMMARY OF EXPERIENCE

Mr. Maguire received his BS in Wildlife from Humboldt State University with an emphasis on waterfowl and shorebird ecology/management. He is a certified Professional Wetland Scientist (PWS) who has spent the last 10 years working within a variety of wetland and upland communities along the California coast and U.S. southeast. He has acquired permits from a variety of State and Federal agencies including environmental resource permits, Coastal Construction Control Line permits, Joint Coastal Permits, Section 10 permits, Section 401 and 404 permits, and other Nationwide Permits.

RELEVANT PROJECT EXPERIENCE

Mr. Maguire has worked closely with the U.S. Army Corps of Engineers (USACE) to assess project impacts, develop project alternatives, and develop mitigation measures under National Environmental Protection Act (NEPA) guidelines. He has also worked with the USACE to conduct feasibility studies and prepare project alternatives for Section 1135 Ecosystem Restoration projects. He has worked with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to prepare Section 7 Consultation documents for nesting Leatherback Sea Turtle, Green Sea Turtle, Loggerhead Sea Turtle, Kemp's Ridley Sea Turtle, West Indian Manatee, Shortnose Sturgeon, Anastasia Beach Mouse, Piping Plover, Eastern Indigo Snake, Atlantic Salt Marsh Snake, Gopher Tortoise, Wood Stork, Least Tern, California Clapper Rail, and Salt Marsh Harvest Mouse.

EDUCATION

Bachelors of Science, Wildlife, December 1999
Humboldt State University, Arcata, CA

Associate of Science, Biology, December 1997
Canada College, Redwood City, CA

PROFESSIONAL AFFILIATIONS

Society of Wetland Scientists
Association of Environmental Professionals
California Native Plant Society

PROFESSIONAL REGISTRATIONS

Professional Wetland Scientist (PWS) – No. 1900

PUBLICATIONS

- Black et al.* 2003. Site Selection and Foraging Behavior of Aleutian Canada Geese in a Newly Colonized Spring Staging Area. Proceedings of the 2003 International Canada Goose Symposium.
- Maguire, A.* 2000. *Whimbrel Attacked by a Peregrine Falcon and Killed by a Common Raven in Northern California.* *Wilson Bulletin* 112(3), 2000, pp. 429-430.

SPECIALIZED TRAINING COURSES

California Tiger Salamander Training, April 2013 (Elkhorn Slough National Estuarine Research Reserve)

California Red Legged Frog Survey Training, April 2012 (Elkhorn Slough National Estuarine Research Reserve)

Identifying CA Native Grasses, June 2011 (California Native Grasslands Association)

Advanced CEQA Workshop, February 2011 (Association of Environmental Professionals)

Planning, Site Selection, and Hydrology Models for Constructed Wetlands, February 2008 (Wetland Training Institute, Inc.)

Florida Wetlands, November 2007 (Continuing Legal Education, International)

Advanced Jurisdictional Hydrology, October 2006 (Wetland Training Institute, Inc.)

Wetland Creation and Restoration, June 2005 (Ohio State University, William J. Mitsch and Roy R. "Robin" Lewis)

Hydric Soils and Whole Landscape Hydrology, October 2004 (University of Florida, Wade Hurt)

USACE Wetland Delineation and Management Training Program, September 2002 (Richard Chinn Environmental Training, Inc.)

Prescription Burn Certification Course, October 2001 (U.S. Department of Forestry)



Emily Kitchen

Senior Scientist

11445 East Via Linda #472

Scottsdale, AZ 85259

Mobile: 510-912-5945

SUMMARY OF EXPERIENCE

Emily Kitchen is a Senior Scientist with EBI Consulting. She has eight years of experience within the environmental consulting field. Ms. Kitchen has extensive experience with historical and regulatory database research, asbestos project monitoring, and asbestos and lead paint inspections. Working with financial institutions, attorneys and telecommunications companies, Ms. Kitchen has provided efficient analysis and completion of environmental reports required for property transactions and telecommunication site construction and modifications. Additionally, Ms. Kitchen is an experienced GIS Analyst having worked on a variety of projects including: soil boring sampling locations, historic features, areas of concern, parcel boundaries, census data maps, and large scale remediation projects.

RELEVANT PROJECT EXPERIENCE

ASTM Environmental Site Assessments (ESAs): Ms. Kitchen has conducted numerous Phase I Environmental Assessments on facilities in New York, Pennsylvania, Utah, New Mexico, Nevada, Arizona and California. This work included visual inspections of properties, comprehensive photographic logs, interviews, review of historical records, and comprehensive written reports. The ESA's were performed in accordance with the American Society of Testing and Materials (ASTM) Standard Practices for Environmental Site Assessment requirements.

NEPA Assessments: In addition to environmental assessments, Ms. Kitchen has prepared and reviewed NEPA reports for telecommunications sites throughout the continental United States to ensure compliance with Federal Communications Commission (FCC) requirements under the National Environmental Policy Act (NEPA). Environmental reviews include analysis of historic properties, wetlands, endangered species habitat, floodplains, and other areas of environmental concern and the possible impacts of cellular installations on these sensitive areas.

Limited Asbestos/Lead Surveys: Ms. Kitchen is an AHERA certified asbestos inspector and a California Department of Public Health Inspector/Assessor. She has performed inspections on buildings for asbestos containing materials (ACM) and lead containing paint (LCP), and assessed the condition of suspect ACM, either friable or non-friable, on interior and exterior portions of a facility and prepared reports of the findings. Sampling events completed by Ms. Kitchen are done in accordance with the procedures specified in Federal Regulations for AHERA asbestos sampling techniques and the California Department of Public Health Lead Sampling Guidelines. Sampling includes collection of bulk samples/chip samples.

EDUCATION

Binghamton University, State University of New York
Bachelor of Science, Ecosystems Specialization

PROFESSIONAL REGISTRATIONS

EPA AHERA Certified Building Inspector

EPA Certified Lead Inspector – California Department of Public Health Certified #25287

**Verizon Wireless • Proposed Base Station (Site No. 285368 "Jackpine")
Ponderosa Road • Shingle Springs, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 285368 "Jackpine") proposed to be located on Ponderosa Road in Shingle Springs, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on a tall pole, configured to resemble a pine tree, to be sited on Ponderosa Road in Shingle Springs. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5–80 GHz	5.00 mW/cm ²	1.00 mW/cm ²
WiFi (and unlicensed uses)	2–6	5.00	1.00
BRS (Broadband Radio)	2,600 MHz	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the



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CONSULTING ENGINEERS
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H0YA
Page 1 of 3

Attachment 4

S 15-0009

**Verizon Wireless • Proposed Base Station (Site No. 285368 “Jackpine”)
Ponderosa Road • Shingle Springs, California**

antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, “Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation,” dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna’s radiation pattern is not fully formed at locations very close by (the “near-field” effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the “inverse square law”). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including zoning drawings by MT2 Telecom, LP, dated February 4, 2015, it is proposed to install six Andrew Model SBNHH-1D65B directional panel antennas on a new 65-foot steel pole, configured to resemble a pine tree, to be sited about 730 feet northwest of the intersection of Ponderosa Road and Cactus Road in Shingle Springs. The antennas would be mounted with up to 4° downtilt at an effective height of about 62 feet above ground and would be oriented in pairs at about 120° spacing, to provide service in all directions. The maximum effective radiated power in any direction would be 10,300 watts, representing simultaneous operation at 4,620 watts for AWS, 4,310 watts for PCS, and 1,370 watts for 700 MHz service; no operation on cellular frequencies is presently proposed from this site. There are reported no other wireless telecommunications base stations at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.020 mW/cm², which is 2.0% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby residence* is 0.74% of the public exposure limit. It should be noted that these results include several “worst-case” assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

* Located at least 140 feet away, based on photographs from Google Maps.



**Verizon Wireless • Proposed Base Station (Site No. 285368 "Jackpine")
Ponderosa Road • Shingle Springs, California**

No Recommended Mitigation Measures

Due to their mounting locations, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

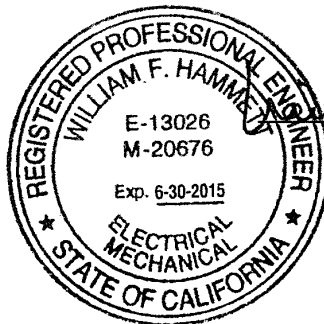
Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless on Ponderosa Road in Shingle Springs, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2015. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

March 24, 2015



William F. Hammett
William F. Hammett, P.E.
707/996-5200



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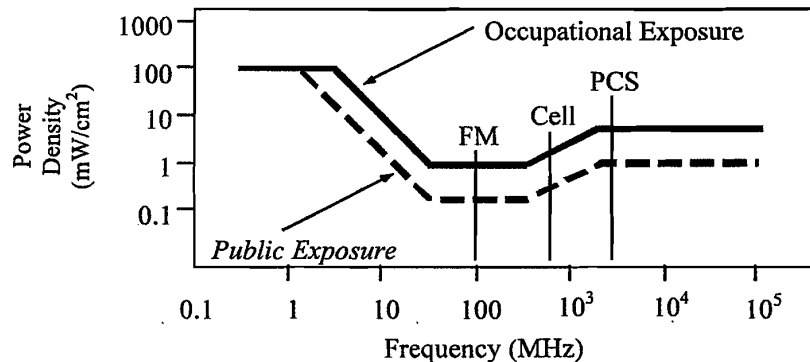
H0YA
Page 3 of 3

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency Applicable Range (MHz)	Electromagnetic Fields (<i>f</i> is frequency of emission in MHz)					
	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm ²)	
0.3 – 1.34	614	<i>614</i>	1.63	<i>1.63</i>	100	<i>100</i>
1.34 – 3.0	614	<i>823.8/f</i>	1.63	<i>2.19/f</i>	100	<i>180/f²</i>
3.0 – 30	1842/f	<i>823.8/f</i>	4.89/f	<i>2.19/f</i>	900/f ²	<i>180/f²</i>
30 – 300	61.4	<i>27.5</i>	0.163	<i>0.0729</i>	1.0	<i>0.2</i>
300 – 1,500	3.54√ <i>f</i>	<i>1.59√f</i>	√ <i>f</i> /106	<i>√f/238</i>	<i>f/300</i>	<i>f/1500</i>
1,500 – 100,000	137	<i>61.4</i>	0.364	<i>0.163</i>	5.0	<i>1.0</i>



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.



HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

FCC Guidelines
Figure 1

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm²,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm²,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
 P_{net} = net power input to the antenna, in watts,
 D = distance from antenna, in meters,
 h = aperture height of the antenna, in meters, and
 η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm²,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

**Verizon Wireless • Proposed Base Station (Site No. 285368 “Jackpine”)
Ponderosa Road • Shingle Springs, California**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal telecommunications carrier, to evaluate its base station (Site No. 285368 “Jackpine”) proposed to be located on the property northwest of the intersection of Ponderosa Road and Meder Road in the Shingle Springs area of unincorporated El Dorado County, California, for compliance with appropriate guidelines limiting sound levels from the installation.

Executive Summary

Verizon proposes to install a new base station, consisting of an equipment shelter, a back-up generator, and antennas on a tall pole, to be sited on the property northwest of the intersection of Ponderosa Road and Meder Road in the Shingle Springs area of unincorporated El Dorado County, California. Noise levels from the equipment operations will be below the County’s permitted limits.

Prevailing Standard

The County of El Dorado sets forth limits on sound levels in Chapter 6.5 (Acceptable Noise Levels) of the El Dorado County General Plan as amended March 2009. The Public Health, Safety, and Noise Element includes in Table 6-2 the following limits for hourly average noise caused by non-transportation sources:

Zone	Daytime	Evening	Night	Assessment Location
	7 am to 7 pm	7 pm to 10 pm	10 pm to 7 am	
Community	55 dBA	50 dBA	45 dBA	at property line
Rural	50 dBA	45 dBA	40 dBA	100 ft from residence

The operation of the back-up power generator during an emergency, when commercial power is unavailable, is considered to be exempt from these limits; however, for the purpose of this study, the generator’s operation during periodic, no-load testing is evaluated for compliance.

Figure 1 attached describes the calculation methodology used to determine applicable noise levels for evaluation against the prevailing standard.

General Facility Requirements

Wireless telecommunications facilities (“cell sites”) typically consist of two distinct parts: the electronic base transceiver stations (“BTS” or “cabinets”) that are connected to traditional wired telephone lines, and the antennas that send wireless signals created by the BTS out to be received by individual subscriber units. The BTS are often located outdoors at ground level and are connected to the antennas by coaxial cables. The BTS typically require environmental units to cool the electronics



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Attachment 5

**Verizon Wireless • Proposed Base Station (Site No. 285368 “Jackpine”)
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inside. Such cooling is often integrated into the BTS, although external air conditioning may be installed, especially when the BTS are housed within a larger enclosure.

Most cell sites have back-up battery power available, to run the base station for some number of hours in the event of a power outage. Many sites have back-up power generators installed, to run the station during an extended power outage.

Site & Facility Description

Based upon information provided by Verizon, including zoning drawings by MT2 Telecom, dated February 4, 2014, that carrier proposes to place an equipment shelter and a back-up power generator within a new fenced compound to be sited on the property (zoned “estate residential”) located northwest of the intersection of Ponderosa Road and Meder Road in the Shingle Springs area of unincorporated El Dorado County. The BTS equipment in the shelter would be cooled by two air-conditioning units, assumed for the purpose of this study to be Tempest Model M-OD.13 units, installed on the west face of the shelter. They are typically installed as a pair for redundancy and alternate their operation, so that both do not operate simultaneously.

A Generac Model SD030 back-up diesel generator, configured with the manufacturer’s Level 2A sound enclosure, is to be installed to the northwest of the shelter, for emergency use in the event of an extended commercial power outage. The generator is typically operated with no load for a single 15-minute period once a week during daytime hours on a weekday, to maintain its readiness for emergency operation. Several directional panel antennas are proposed to be installed on a 70-foot tall pole, configured to resemble a pine tree, to be sited within the compound; this portion of the base station is passive, generating no noise.

Based on review of the pertinent map in the County’s General Plan, the proposed site is within an identified “Community” area. The adjacent parcels to the west, south, and southeast, with property lines at about 100, 1,600, and 1,050 feet away, respectively, are also within the “Community” area. The adjacent parcels to the north and east, with property lines at about 70 and 500 feet away, respectively, are not within the “Community” areas, so the “Rural” limits would apply there; the nearest residences to the north and east are about 300 and 725 feet from the compound, respectively.

Study Results

Tempest reports that the maximum noise level from one air conditioning unit is 61 dBA, measured at a reference distance of 6.5 feet. Generac reports that the maximum noise level from the generator is 63.0 dBA, measured at a reference distance of 23 feet.

**Verizon Wireless • Proposed Base Station (Site No. 285368 “Jackpine”)
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As shown in the table below, the maximum calculated noise levels, for the operation of the air conditioners alone, at all adjacent parcels, are below the County’s most restrictive nighttime noise limit of 40 dBA. On the day on which the generator is tested, the calculated noise levels at the same locations are all below the County’s most restrictive daytime limit of 50 dBA.

Adjacent Parcel	Calculation Distance	<u>Maximum Calculated Noise Level</u>		Complies With Limits
		A/C Only	With Generator	
Community:				
West	100 feet	36.5 dBA	43.7 dBA	yes
South	1,600 feet	13.1 dBA	20.1 dBA	yes
Southeast	1,050 feet	16.6 dBA	23.6 dBA	yes
Rural:				
North	200 feet	30.5 dBA	37.2 dBA	yes
East	625 feet	21.1 dBA	28.0 dBA	yes

Conclusion

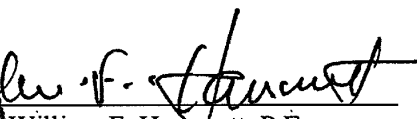
Based on the information and analysis above, it is the undersigned’s professional opinion that the operation of the Verizon Wireless base station proposed to be located at Ponderosa Road in the Shingle Springs area of unincorporated El Dorado County, California, will comply with the pertinent requirements for limiting acoustic noise emission levels.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2017. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

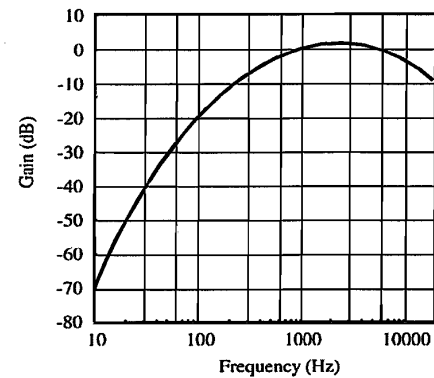
July 2, 2015




William F. Hammett, P.E.
707/996-5200

Noise Level Calculation Methodology

Most municipalities and other agencies specify noise limits in units of dBA, which is intended to mimic the reduced receptivity of the human ear to Sound Pressure (“ L_P ”) at particularly low or high frequencies. This frequency-sensitive filter shape, shown in the graph to the right as defined in the International Electrotechnical Commission Standard No. 179, the American National Standards Institute Standard No. 5.1, and various other standards, is also incorporated into most calibrated field test equipment for measuring noise levels.



30 dBA	library
40 dBA	rural background
50 dBA	office space
60 dBA	conversation
70 dBA	car radio
80 dBA	traffic corner
90 dBA	lawnmower

The dBA units of measure are referenced to a pressure of 20 μ Pa (micropascals), which is the threshold of normal hearing. Although noise levels vary greatly by location and noise source, representative levels are shown in the box to the left.

Manufacturers of many types of equipment, such as air conditioners, generators, and telecommunications devices, often test their products in various configurations to determine the acoustical emissions at certain distances. This data, normally expressed in dBA at a known reference distance, can be used to determine the corresponding sound pressure level at any particular distance, such as at a nearby building or property line. The sound pressure drops as the square of the increase in distance, according to the formula:

$$L_P = L_K + 20 \log(D_K/D_P),$$

where L_P is the sound pressure level at distance D_P and L_K is the known sound pressure level at distance D_K .

Individual sound pressure levels at a particular point from several different noise sources cannot be combined directly in units of dBA. Rather, the units need to be converted to scalar sound intensity units in order to be added together, then converted back to decibel units, according to the formula:

where L_T is the total sound pressure level and L_1, L_2 , etc are individual sound pressure levels.

$$L_T = 10 \log(10^{L_1/10} + 10^{L_2/10} + \dots),$$

Certain equipment installations may include the placement of barriers and/or absorptive materials to reduce transmission of noise beyond the site. Noise Reduction Coefficients (“NRC”) are published for many different materials, expressed as unitless power factors, with 0 being perfect reflection and 1 being perfect absorption. Unpainted concrete block, for instance, can have an NRC as high as 0.35. However, a barrier’s effectiveness depends on its specific configuration, as well as the materials used and their surface treatment.



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Methodology
Figure 1