Draft
Initial Study
and
Mitigated Negative Declaration

for

Crown Castle NG West Inc.
San Mateo County Project
(Application No. 13-02-007)

March 2014

Prepared for:
California Public Utilities Commission
Energy Division
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San Francisco, California 94102

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MITIGATED NEGATIVE DECLARATION

Crown Castle NG West Inc. (Crown Castle)
Permit to Construct
A.13-02-007
SAN MATEO COUNTY PROJECT

INTRODUCTION

Crown Castle NG West Inc., formerly NextG Networks of California Inc., (Crown Castle or the Applicant) filed an application (13-02-007) which included a Proponent's Environmental Assessment (PEA) and required fee pursuant to Rules 2.4 and 2.5 of the California Public Utilities Commissions (CPUC) Rule of Practice and Procedure with the CPUC for an Authority to Construct and for Deviation from Public Utilities Code Section 320 for the San Mateo County Project (proposed project). On September 6, 2013, the Applicant filed an amended application and an updated PEA to reflect proposed changes for the original filing. Accordingly, the amended application and PEA describes the proposed project.

Under the CPUC's Rules, approval of the proposed project must comply with the California Environmental Quality Act (CEQA), including assessment of the potential environmental impacts of the proposed project. This Mitigated Negative Declaration has been prepared based upon the assessment of the potential environmental impacts outline in the attached Initial Study.

Pursuant to CEQA (California Public Resources Code, Section 21000 et seq.), the CPUC must prepare an Initial Study (IS) for discretionally projects such as the proposed project to determine whether the proposed project may have a significant adverse effect on the environment. The IS uses the significance criteria outlined in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.).

Article 6, Section 15070, Decision to Prepare a Negative Declaration or Mitigated Negative Declaration, of the CEQA Guidelines states the following (14 CCR 15070):

> A public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:
>
> a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
>
> b) The initial study identifies potentially significant effects, but:
>
> 1) Revisions in the project plans or proposals made by, or agreed to by, the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
>
> 2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Based on the analysis in the IS, it has been determined that all project-related environmental impacts would be reduced to a less-than-significant level with the incorporation of feasible applicant proposed measures (i.e., measures adopted by the applicant as project features) as well as one mitigation measure. Therefore, adoption of a Mitigated Negative Declaration (MND) will satisfy the requirements of CEQA.

The information contained in the proposed project's PEA and additional information requested by the CPUC during the PEA review were fully considered during the preparation of this Draft IS/MND.

Copies of the project application, PEA, and supporting technical studies are available on the project website at:

http://www.cpuc.ca.gov/environment/info//dudek/crowncastle/CrownCastleMain.htm

PROJECT DESCRIPTION

Following is a summary of the proposed project; the attached IS presents more details in Section 4, Project Description.

The proposed project would consist of installation of distributed antennae systems (DAS) network facilities, including fiber-optic cable, antennas, nodes, and related facilities along approximately 14.2 miles of existing highway rights-of-way (ROWs), primarily along Highway 1 (Hwy 1) in San Mateo County. Approximately 12.8 miles of the fiber-optic cable would be placed aerially on existing utility poles, and approximately 1.4 miles of new conduit would be installed underground within existing ROWs.

Project construction is expected to require approximately 2 months to complete.

PROJECT OBJECTIVE

The Applicant provides point-to-point radiofrequency (RF) transport and backhaul services that augment wireless broadband services in dense urban and isolated suburban/rural areas for its wireless carrier customers. The Applicant provides these services over non-switched, digital fiber-optic communications networks referred to as DAS networks.

The proposed project would expand wireless broadband services in rural, coastal areas of San Mateo County, California. According to the Applicant, the primary objectives of the proposed project are to expand the wireless voice and broadband services provided by Crown Castle's customer, Verizon Wireless, to an unserved/underserved rural area along a heavily traveled section of Hwy 1 in San Mateo County, thereby generally improving the area's communications and data system; to enhance public safety by providing expanded and more reliable communications access to emergency services; to provide a means to more efficiently expand wireless service by other carriers in this area through co-location or joint use of certain facilities (this could also increase competition among existing telecommunications carriers—an outcome that would be consistent with well-established California and federal telecommunications policy); to expand and enhance California's national and international telecommunications access; and to enable existing telecommunications networks to better exchange traffic across California and improve reliability using high-quality, state-of-the-art technology.

APPLICANT PROPOSED MEASURES

The PEA details project protocols that would be followed during project-related activities (ICF 2013). Project protocols are specific to environmental issue areas and are herein termed Applicant Proposed Measures (APMs). Table 1 lists APMs proposed as project design features. These APMs are analyzed as part of the proposed project.

Table 1
Applicant Proposed Measures

APM Number	Description
	Aesthetics
APM-AES-1	Keep construction and staging areas orderly, free of trash and debris, and restore areas disturbed by project construction along the proposed route to their pre-project condition.
APM-AES-2	• Identify and comply with local regulations and requirements concerning architectural design; • Design project facilities to be unobtrusive and to not conflict with the character of the surrounding setting; restore conduit installation sites to pre-construction conditions; and • Prior to construction, consult with the local agencies associated with each project area regarding the appropriate architectural design practices that will be implemented before, during, and after construction.
APM-AES-3	As part of its standard construction operating procedure, ensure that construction lights will be directed away from the visual field of motorists and pedestrians along any streets or right-of-ways.
	Air Quality
APM-AQ-1	*Implement BAAQMD basic construction measures to reduce dust emissions* • Crown Castle will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce dust emissions. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.
APM-AQ-2	*Implement BAAQMD basic construction measures to reduce exhaust emissions* Crown Castle will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce exhaust emissions. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
	Biological Resources
APM-BIO-1	*Conduct spring surveys for special-status plants within the project area* Prior to construction, a qualified botanist will complete spring surveys for special-status plants within the project area to determine the presence or absence of special-status plants. The survey will be completed by qualified botanists and will be conducted during the appropriate period(s) necessary to observe special-status plants known to occur in the region. If a population of a special-status plant species occurs within the project area, the population will be clearly staked and flagged in the field by a qualified botanist prior to construction so the population can be avoided. If the population cannot be avoided during construction, Crown Castle will minimize impacts by reducing the work area to the smallest area necessary to complete the work. Crown Castle will conduct project activities and

Table 1
Applicant Proposed Measures

APM Number	Description
	necessary ground disturbance in a manner that is consistent with the successful reestablishment of the species to the extent feasible. The specific actions necessary will depend on the biology of the species, and will be determined through consultation with the USFWS and CDFW. Generally actions include waiting for the plant species to go to seed and collecting the seed for future planting and saving the top 6 inches of top soil (which contains the seed bank) separate from other excavated soil.
APM-BIO-2	*Conduct a preconstruction nesting survey to minimize impacts to nesting birds and raptors (February through August)* If the proposed project is completed outside of the nesting season of birds, no additional measures will be necessary. If construction will take place during the nesting season (generally February through August) Crown Castle will conduct preconstruction nesting bird surveys. If an active nest is identified during the surveys, Crown Castle, in consultation with CDFW and USFWS, will establish a no-construction zone until the breeding season is completed or subsequent bird/raptor surveys confirm that all offspring have fledged and no new nests have been established. Generally, these no construction zones are 50 feet for passerine birds and 250 feet for raptors.
APM-BIO-3	*Conduct preconstruction survey to minimize impacts to wintering monarch butterflies for construction in late fall and winter months* If the proposed project is scheduled to occur during the late fall and winter months and trimming of eucalyptus trees is required, a biologist will conduct a preconstruction survey to determine if the trees that require trimming and the surrounding trees support overwintering clusters of monarch butterflies. If clusters of monarch butterflies are present, Crown Castle, in consultation with CDFW, will establish a no construction zone until after the monarch butterflies have migrated. Generally, this no construction zone is 30 feet from wintering monarch butterflies.
APM-BIO-4	*Measures to minimize impacts to California red-legged frogs, San Francisco garter snakes, and western pond turtles* Work should be avoided from October 16 (or the first measurable rainfall of 1 inch or greater) to May 14. If work cannot be avoided during this period then it is recommended that a qualified biological monitor be present for all ground-disturbing activities. It is recommended that a qualified biologist familiar with California red-legged frogs, San Francisco garter snake, and western pond turtle conduct a preconstruction survey immediately prior to construction in areas where ground disturbance will occur. During the preconstruction survey, the biologist will also look for and identify burrows that could be used by California red-legged frogs. These areas will be flagged (as practical) for avoidance. The biologist will remain onsite for the duration of any construction activities involving excavation or the use of heavy machinery or equipment. Prior to work the construction crew will receive worker environmental awareness training. Training will include review of environmental laws and protective measures that must be followed by all personnel to reduce or avoid effects on protected species during construction activities. Any holes, trenches, pits, and/or tanks that are left open overnight will either be covered to prevent entry or one side will be sloped to allow wildlife to escape. Open holes, trenches, pits, and/or tanks left overnight will be checked by a qualified biologist at the start of construction each day to determine whether trapped wildlife are present. If wildlife are present, they will be removed by the biologist before the hole, trench, or pit is filled. Plastic monofilament netting (erosion control matting) or similar material containing netting will not be used at the project. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds. Handling of California red-legged frogs is prohibited without a valid federal take permit and handling of San Francisco garter snakes is prohibited without a valid federal take permit and a CESA Section 2081 Incidental Take Permit. Any California red-legged frogs or San Francisco garter snakes observed on the work site will be allowed to move offsite on their own. If California red-legged frogs, San Francisco garter snakes, and western pond turtles are observed on or adjacent to the work site, and are in danger of injury, construction in the vicinity will cease until no danger exists for California red-legged frogs or San Francisco garter snakes.

Table 1
Applicant Proposed Measures

APM Number	Description
	Cultural Resources
APM-CUL-1	• If buried cultural resources, such as chipped or ground stone, historic debris, building foundation, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate measures in consultation with the CPUC, State Historic Preservation Officer, and other appropriate agencies • In the event that fossil remains are encountered, either by the cultural resources monitor or by construction personnel, qualified paleontological specialists will be contacted. Construction within 100 feet of the find in non-urban areas and 50 feet in urban areas will be temporarily halted or diverted until a qualified vertebrate paleontologist examines the discovery.
	Greenhouse Gas Emissions
APM-GHG-1	*Implement BAAQMD Best Management Practices to reduce GHG emissions* To ensure that short-term GHG emissions are reduced as much as feasible and the proposed project does not result in a considerable contribution to GHG levels, Crown Castle will require all construction contractors to implement the following GHG emission reduction measures to the extent they are feasible. • Using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15% of the fleet. • Recycling or reusing at least 50% of construction waste or demolition materials.
	Hazards and Hazardous Materials/Fire Safety
APM-HAZ-1	• Ensure proper labeling, storage, handling, and use of hazardous materials in accordance with best management practices and the Occupational Safety and Health Administration's HAZWOPER requirements. • Ensure that employees are properly trained in the use and handling of hazardous materials and that each material is accompanied by a material safety data sheet. • Any small quantities of hazardous materials stored temporarily in staging areas will be stored on pallets within fenced and secured areas and protected from exposure to weather. Incompatible materials will be stored separately, as appropriate. • All hazardous waste materials removed during construction will be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility, to the extent necessary to ensure the area can be safely traversed. • Significant releases or threatened releases of hazardous materials will be reported to the appropriate agencies.
	Hydrology and Water Quality
APM-HYD-1	*Prior to non-storm discharges into surface waters, provide documentation of obtaining all necessary and applicable approvals, including the following:* • Implementation of appropriate Best Management Practice (BMP's) to minimize the potential for storm-water pollutants. These BMPs may include, but not necessarily be limited to, the utilization of settling ponds or screens to reduce suspended sediment loads
APM-HYD-2	Erosion Controls: • Excavated or disturbed soil will be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile. • All stockpiled material will be covered or contained in such a way that eliminates offsite runoff from occurring. • Upon completion of construction activities, excavated soil will be replaced and the area restored to pre-construction conditions.

Table 1
Applicant Proposed Measures

APM Number	Description
	Land Use
APM-LU-1	*Submit written documentation, including evidence of review by the appropriate public works, planning, and/or community development agency for the applicable jurisdictions. This documentation will include the following:* • Site plan showing the dimensions and location of the finalized alignment; • Evidence that the project meets all necessary requirements; • Evidence of compliance with design standards; • Copies of any necessary permits or conditions of approval; and • Records of any discretionary decisions made by of the applicable jurisdictions.
	Noise
APM-NOI-1	• Require construction contractors to comply with the construction-hour limitations and construction equipment standards set forth by each local jurisdiction. • All equipment will have sound-control devices no less effective than those provided on original equipment; • No equipment will have an unmuffled exhaust; • Construction equipment will be located as far from sensitive receptors (e.g., residences, schools, places of worship, and hospitals) as possible; and • If traffic control devices requiring electrical power are employed within 500 feet of sensitive receptors, the devices will be battery/solar powered instead of powered by electrical generators. In addition, implement a variety of measures to reduce noise levels from directional boring where noise levels of 60 dBA or greater will be experienced at sensitive receptor locations. For example: • Special mufflers can be applied to the boring rig exhaust; • Shielding can be erected between the noise source and the receptor; or • As an extreme measure, a temporary enclosure can be erected to house the boring operation. Implement all reasonable and customary noise reduction measures and post the name and telephone number of a person for the public to contact to resolve noise-related problems.
	Recreation
APM-REC-1	• Schedule construction to avoid peak use periods (e.g., weekends and holidays) for recreational facilities. • All ground surfaces will be restored as close to pre-project conditions as soon as possible or practicable.
	Traffic
APM-TRA-1	• As deemed necessary by the applicable jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. • Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) will be used to minimize impacts to traffic flow. • Develop circulation and detour plans to minimize impacts to local street circulation. This will include the use of signage and flagging to guide vehicles through and/or around the construction zone. • Schedule truck trips outside of peak morning and evening commute hours. • Limit lane closures during peak hours to the extent possible. • Use haul routes minimizing truck traffic on local roadways to the extent possible. • Include detours for bicycles and pedestrians in all areas potentially affected by project construction. • Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. • Store construction materials only in designated areas. • Coordinate with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary.

Table 1
Applicant Proposed Measures

APM Number	Description
APM-TRA-2	To avoid impeding emergency vehicle traffic around the construction activities, develop an Emergency Vehicle Access Plan that includes the following: • Evidence of advanced coordination with emergency service providers, including but not necessarily limited to police departments, fire departments, ambulance services, and paramedic services; • Emergency service providers will be notified of the proposed project locations, nature, timing, and duration of any construction activities, and will be asked for advice about any road access restrictions that could impact their response effectiveness; and • Project construction schedules and routes designed to avoid restricting movement of emergency vehicles to the best extent possible. Provisions to be ready at all times to accommodate emergency vehicles at locations where access to nearby properties may be blocked. Provisions could include the use of platings over excavations, short detours, and/or alternate routes.
APM-TRA-3	Prepare and implement a traffic safety plan and coordinate with local transportation and emergency response agencies to avoid potential roadway safety hazards.
APM-TRA-4	Limit all parking to right-of-way and pre-approved staging areas to address the increased parking demand created by construction activities.
Utilities and Service Systems	
APM-USS-1	Recycle and dispose of construction materials to minimize generation of solid waste resulting from construction activities.

Source: ICF 2013.

MITIGATION MEASURE

The following mitigation measure (Table 2), agreed to by the Applicant, would reduce project-related impacts to a less than significant level.

Table 2
Mitigation Measure

	Description
Biological Resources	
MM-BIO-1	The Applicant and/or its contractors shall implement the following measures during all Monterey pine (i.e., natural and planted stands), live oak and black oak tree pruning activities associated with construction and maintenance: • Tools and machinery that are used to prune, cut, or chip trees infected with pine pitch canker or sudden oak death shall be cleaned and sterilized before and after use. When cutting or pruning a diseased tree, clean tools with a disinfectant before using them on uninfected trees. Lysol™ or a 10% solution of bleach (1 part household bleach in 9 parts water) are effective sterilants. A two minute soak time is recommended when using bleach. • All tree material infected with pine pitch canker or sudden oak death shall be deposited on site, or may be taken to a designated disposal facility for prompt burial, chipping and composting, or burning. • Any infected material removed from the site shall be tightly covered with a tarp during transit and shall not leave the zone of infestation. • All individuals responsible for pruning, cutting, or chipping trees infected with pine pitch canker or sudden oak death shall be made aware of these measures.

ENVIRONMENTAL DETERMINATION

The IS has been prepared to identify the potential effects on the environment from implementation of the proposed project and to evaluate the significance of these effects. The IS is based on the Applicant's PEA filed on September 6, 2013 (ICF 2013), proposed project site inspections by the CPUC environmental team, and other environmental analysis for the proposed project. APMs proposed by the Applicant as project design features are incorporated into Section 4, Project Description, of this IS.

Based on the IS, the proposed project, with integration of APMs where applicable, would result in less-than-significant effects or have no impacts in the areas of aesthetics, agricultural and forestry resources, air quality/greenhouse gases, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, recreation, transportation and traffic, and utilities and service systems. Impacts to biological resources, specifically Monterey pine (*Pinus radiata*), would be less than significant with incorporation of mitigation.

Review Period

All comments regarding the correctness, completeness, or adequacy of this IS/MND must be received by the CPUC by no later than 5:00 p.m. on April 18, 2014.

The IS/MND, as well as Crown Castle's application and PEA for the San Mateo County Project (September 2013) are available at the project's website: http://www.cpuc.ca.gov/environment/info//dudek/crowncastle/CrownCastleMain.htm

Contact Person

March 18, 2014

Date

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1.0 INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

1.1 Project Title

Crown Castle NG West (Crown Castle) – San Mateo County Project, Application No. 13-02-007

1.2 Lead Agency Name and Address

California Public Utilities Commission (CPUC)
Energy Division
505 Van Ness Avenue
San Francisco, California 94102

1.3 Contact Person and Phone Number

Jensen Uchida, Project Manager
Energy Division
415.703.5484

1.4 Project Location

The approximately 14.2-mile route along Highway 1 (Hwy 1), on which the proposed project would occur, would be located within a public right-of-way (ROW) or existing utility easement within unincorporated San Mateo County, California. In addition to the County of San Mateo, the proposed project alignment would traverse an existing 0.5-mile utility easement in the publicly owned Año Nuevo State Park.

1.5 Project Sponsor's Name and Address

Crown Castle
800 Tasman Drive
Milpitas, California 95035
C/O Edward W. O'Neill and Kerry E. Shea
DAVIS WRIGHT TREMAINE LLP
505 Montgomery Street, Suite 800
San Francisco, California 94111–6533
415.276.6500

1.6 General Plan Designation

According to the County of San Mateo General Plan, the proposed project mainly traverses parcels designated Agriculture with several smaller areas designated as Public Recreation and General Open Space.

1.7 Zoning

According to the County of San Mateo's zoning designations, the majority of the existing zoning designations within the vicinity of the proposed project alignment include PAD/CD (Planned Agricultural District/Coastal Development). Publicly owned lands in the vicinity of the proposed project do not have zoning designations.

1.8 Description of Project

The application and accompanying Proponent's Environmental Assessment (PEA) identifies the proposed project, which consists of installation of distributed antenna systems (DAS) network facilities, including fiber-optic cable, antennas, nodes, and related facilities along approximately 14.2 miles of existing highway ROWs, primarily along Hwy 1 in San Mateo County. Approximately 12.8 miles of the fiber-optic cable would be placed aerially on existing utility poles, and approximately 1.4 miles of new conduit would be installed underground within existing ROWs.

For further discussion, see Section 4, Project Description.

1.9 Surrounding Land Uses and Setting

Land uses surrounding the project alignment are rural and sparse including agricultural (e.g., farms, ranches, and nurseries); recreation (e.g., Año Nuevo State Park, camping/glamping[1], public parking for coastal access); and small commercial uses and rural residences. The closest sensitive receptors, residences, are located as close as approximately 50 to 100 feet of the alignment, including residences at the end of Año Nuevo State Park Road and along Pigeon Point Road at the north end of the proposed project. The visitor center complex for Año Nuevo State Park is also located approximately 50 feet from the proposed project alignment.

[1] Glamping = Glamorous Camping.

1.10 Other Public Agencies Whose Approval is Required

In addition to the Authority to Construct required by the CPUC for overall project approval and California Environmental Quality Act (CEQA) review, Table 1-1 describes additional permits that the Applicant will likely be required to obtain for project implementation.

Table 1-1
Required Permits and Approvals

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose
State Agencies		
Encroachment Permit	California Department of Transportation	Construction, operation, and maintenance within, under, or over state highway ROW
Local Agencies		
Use Permit and Building Permit subject to Coastal Development Review	San Mateo County Planning Department	Construction, operation, and maintenance within the coastal development zone.

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2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ Aesthetics	☐ Agricultural and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards and 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

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3.0 ENVIRONMENTAL 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 (ND) 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 (EIR) is required. ☐

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant impact unless mitigated" on the environment, but a least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR 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 ND pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or ND, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

March 12, 2014

Mary Jo Borak
Energy Division
California Public Utilities Commission

Date

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4.0 PROJECT DESCRIPTION

4.1 Introduction

On February 5, 2013, Crown Castle NG West Inc., formerly NextG Networks of California Inc., (Crown Castle or the Applicant) filed an application (13-02-007) which included a Proponent's Environmental Assessment (PEA) with the California Public Utilities Commission (CPUC) for an Authority to Construct and for Deviation from Public Utilities Code Section 320 for the San Mateo County Project (proposed project). On September 6, 2013, the Applicant filed an amended application and an updated PEA to reflect proposed changes for the original filing. Accordingly, the amended application and PEA describes the proposed project.

The proposed project would consist of installation of distributed antenna systems (DAS) network facilities, including fiber optic cable, antennas, nodes, and related facilities along approximately 14.2 miles of existing highway rights-of-way (ROW), primarily along Highway 1 (Hwy 1) in San Mateo County, California (Figure 4-1, Regional Map). Approximately 12.8 miles of the fiber-optic cable would be placed aerially on existing utility poles, and approximately 1.4 miles of new conduit would be installed underground within existing ROWs.

4.2 Project Objectives

The Applicant provides point-to-point radiofrequency (RF) transport and backhaul services that augment wireless broadband services in dense urban and isolated suburban/rural areas for its wireless carrier customers. The Applicant provides these services over non-switched, digital fiber-optic communications networks referred to as DAS networks.

The proposed project would expand wireless broadband services in rural, coastal areas of San Mateo County. According to the Applicant, the primary objectives of the proposed project are:

- To expand the wireless voice and broadband services provided by Crown Castle's customer, Verizon Wireless, to an unserved/underserved rural area along a heavily traveled section of Hwy 1 in San Mateo County, thereby generally improving the area's communications and data system.
- To enhance public safety by providing expanded and more reliable communications access to emergency services.
- To provide a means to more efficiently expand wireless service by other carriers in this area through co-location or joint use of certain facilities; this could also increase competition among existing telecommunications carriers—an outcome that would be consistent with well-established California and federal telecommunications policy.

- To expand and enhance California's national and international telecommunications access.
- To enable existing telecommunications networks to better exchange traffic across California and improve reliability using high-quality, state-of-the-art technology.

4.3 Project Location

The approximately 14.2-mile route along Hwy 1, on which the proposed project would occur, would be located within a public ROW or existing utility easement within unincorporated San Mateo County (Figure 4-2, Project Vicinity Map). In addition to the County of San Mateo, the proposed project alignment would traverse an existing 0.5-mile utility easement in Año Nuevo State Park.

Table 4-1 shows the length of various segments of the proposed project defined by the ROW.

Table 4-1
Proposed Project ROW

Segment	Aerial Portion (mile)	Underground Portion (mile)	Total ROW (mile)
Existing Hwy 1 ROW	6.9	1.4	8.3
Existing local public road ROW	4.0	0.0	4.0
Existing utility easement ROW	1.9	0.0	1.9
Total ROW	**12.8**	**1.4**	**14.2**

The alignment would generally follow Hwy 1 beginning at the San Mateo County–Santa Cruz County line and continue in a northwesterly direction along Hwy 1 for a distance of approximately 7.7 miles where it would transition onto Pigeon Point Road. It would follow Pigeon Point Road for a distance of approximately 1.6 miles to a currently under-construction Verizon Wireless macro cell tower. The segment along Hwy 1 would be aerial cable placed on existing utility poles and some new buried conduit.

From the intersection of Hwy 1 and Pigeon Point Road, the alignment would continue to the west along Pigeon Point Road, past the Pigeon Point Lighthouse and north to the Hwy 1 ROW. It would then continue to the north along the Hwy 1 ROW for a distance of approximately 2.1 miles to Bean Hollow Road. The alignment would depart Hwy 1 and continue on existing utility poles north along Bean Hollow Road for a distance of approximately 1.3 miles to an existing Verizon Wireless cellular tower on the Bay Flower Company property east of the road.

Land uses surrounding the project alignment are rural and sparse, including agricultural (i.e., farms, ranches, and nurseries), recreation (i.e., Año Nuevo State Park, camping/glamping,[1] public parking for costal access), and small commercial uses and rural residences.

4.4 Project Components

The proposed project would consist of:

- Installing a total of 10 antennae, pole extenders, and associated equipment, two on each of five node poles (all existing utility poles).
- Installing 14.2 miles of fiber-optic cable (12.8 miles across approximately 308 existing utility poles and 1.4 miles underground).
- Installing guy wires and anchors on up to 70 existing utility poles, pending further engineering analysis and structural testing.
- Potentially replacing up to 14 existing utility poles to accommodate the new stress loads, pending further engineering analysis.

4.4.1 Antennae and Associated Equipment on Node Poles

The following components would be attached to each of the five node poles:

- Antenna(e), two KS 84010525 panel antennae (23 inches tall, 10 inches wide, and 5.5 inches deep) would be mounted at the top of each node pole.
- Battery back-up unit, measuring 36.88 inches tall, 30.25 inches wide, and 16 inches deep, would be mounted on each node pole at a height of approximately 8 feet above the ground.
- RF disconnect switch, measuring 10 inches tall, 8 inches wide, and 5 inches deep, would be mounted on each node pole at a height of approximately 8 feet above the ground.
- Electric meter, measuring 26 inches tall, 12 inches wide, and 6 inches deep, would be mounted on each node pole at a height of approximately 8 feet above the ground.
- Pole extenders measuring 7 feet in height would be attached to the top of node poles to extend the antenna an adequate distance above the power lines. The antennae would be attached to the top of the extenders.

These items would be mounted on existing utility poles, the height of which would be increased by a total of 9 feet by the addition of the pole-top extenders and antennae.

[1] Glamping = Glamorous camping.

4.4.2 Fiber-Optic Cable

Approximately 14.3 miles of new fiber-optic cable would be installed generally along Hwy 1. Approximately 12.8 miles would be placed aerially on existing utility poles, and approximately 1.4 miles of new conduit and cables would be installed underground.

4.4.3 Guy Wires and Anchors on Poles

Approximately 70 guy wires would be installed at existing guy wire locations when adding lines or other facilities that increase loads on poles. A guy wire is a tensioned cable designed to add stability to a free-standing structure such as a pole. One end of the guy wire is attached to the structure, and the other is anchored to the ground at a distance from the structure's base. Where anchors require replacement, the new anchor rod would be 7 to 10 feet long with a diameter of 0.5 to 1.25 inches. Existing anchors would be used where they could accommodate an additional guy wire.

4.4.4 Replacement of Existing Poles

Approximately 14 existing poles may need to be replaced due to the condition of the poles and the increased stress caused by adding more fiber-optic cable. If pole replacement is needed, the replacement poles would be of the same type and installed into the exact location as the existing poles. Exactly which poles, if any, to be replaced is unknown at this time as the load testing is not complete.

4.5 Right-of-Way Requirements

The project would utilize existing road or utility ROWs which are of sufficient width to accommodate the proposed project; therefore no new ROWs would be acquired for the proposed project.

4.6 Pre-Construction Environmental Training

Pre-construction environmental training would be conducted for all construction employees prior to the start of ground-disturbing activities. The purpose of this training would be to inform the construction supervisor, workers, and inspectors of any potential sensitive resources that may occur along the proposed project alignment, to explain these resources' importance and sensitivity to disturbance, to review regulatory protections accorded to these resources, and to describe the construction protocols and mitigation measures adopted for the proposed project. Training would identify individual responsibilities and communication procedures regarding these resources. Pre-construction training also would address construction practices, traffic controls, and health and safety practices.

4.7 Construction Activities

Construction of the proposed project would include overhead installation of antennae, associated equipment, and fiber-optic cable on existing poles; installation of guy wires and anchors on existing poles; underground installation of fiber-optic conduit and cables; and replacement of existing poles. Temporary work areas would include pole sites for overhead fiber-optic installation and replacement of approximately 14 poles, and entry and exit pits associated with underground fiber-optic installation within existing roadways.

Aerial Installation

The basic method of installation for aerial facilities would be to install suspension clamps at each pole. Cables would then be supported (lashed) to high-strength galvanized suspension strands held in place by the suspension clamps. The strand is high-tensile steel and would be placed under tension to control sag. Tension would be maintained at the ends of the strand, and at all corners, by "downguys" anchored into the ground.

Standard aerial construction techniques and typical two-axle rubber-tire vehicles would be used to attach antennae and associated equipment to most utility poles. Basic equipment required for aerial installations includes bucket trucks and cable reel trucks or cable trailers. At least one crew and one bucket truck would travel the pole line alignment. The cable reel truck would carry spooled fiber that would be unwound for installation on the existing poles. The two-axle truck equipment is highly maneuverable and would use existing improved areas for turning around or parking in areas such as existing roads, field access aprons, driveway aprons, or farm roads. The anchors are augured or driven directly into the ground using hand equipment, and the guy wire is attached and tensioned. An area of approximately 10 feet by 10 feet would be disturbed to install the anchors for the guy wires. In areas where access could be an issue (e.g., areas with sensitive resources (e.g., creek crossings) or dense vegetation), crews would walk to the site, and installation activities would be completed by hand. In these areas, use of a tool similar to an air gun would allow one crew member to shoot a string over the resource or dense vegetation to a crew member on the other side to create a pull line for fiber-optic line installation.

For node poles, pole extenders measuring 7 feet in height would be attached to the top of node poles to extend the antenna an adequate distance above the power lines. The antennae would be attached to the top of the extenders.

Grounding would occur at the first, last, and every fifth pole by driving a copper rod into the ground.

Vegetation Trimming and Trampling

In some locations it would be necessary to trim vegetation to install the fiber-optic cable on the existing utility poles. Although Pacific Gas and Electric (PG&E), the power company that owns the poles, is required under General Order 95 to keep the encroaching vegetation trimmed as part of routine maintenance, additional trimming could be necessary in some locations.

Vegetation trimming could be necessary to accommodate the new cable to be attached at a location lower on the pole than the existing lines. It would not be necessary to remove trees, but branches and limbs may need to be trimmed in some locations. The use of utility bucket trucks would allow the workers to access the pole attachment locations without the need for vehicle access to the base of the pole, reducing the need for vegetation trimming. The specific locations of any vegetation trimming would not be known until the contractor is on site to conduct the work; it can be assumed that trimming would be minimal based on the proposed construction methods.

In some locations, the rubber-tired vehicles would be expected to trample existing brushy vegetation. The bucket trucks may need to drive on the vegetation or place their outriggers on vegetation to gain access to the poles.

Underground Installation

Horizontal Directional Bore

Horizontal directional boring allows new conduits to be installed to the desired depth without surface disturbance along the alignment. It is expected that all of the new buried conduit would be installed using horizontal directional drilling methods. Bore entry and exit pits measuring approximately 2 feet by 6 feet and 3 to 5 feet deep would be excavated by a backhoe. A horizontal directional bores machine would drill a horizontal pilot hole along the designed cable alignment and at a depth of 3 to 5 feet below the ground surface. Once the pilot bore string reaches its receiving pit, the conduit would be attached to the end. The pilot pipe would then be pulled back to the bore machine thereby installing the conduit. The conduits would be spliced together or an access vault (see below) would be installed. The typical bore lengths would be approximately 200 to 400 feet in length.

Small areas of disturbance measuring approximately 20 by 40 feet would be needed at approximately 200-foot to 400-foot intervals to accommodate the bore machines, to allow for connection of the conduits and for the installation of access vaults. The excavation would be 2 feet by 6 feet, as described above, but some temporary surface disturbance beyond that would be expected from the vehicle maneuvering and workers. Water trucks are not anticipated to be required for dust suppression because horizontal directional drilling, the only activity that

would involve appreciable soil excavation and stockpiles, would use directional bore machines that have water on board that would be used for dust control, if necessary.

The bore machine would use a mixture of water and fine clay (usually bentonite) to help lubricate the pilot pipe and keep the hole drilled open. The water and clay would be mixed on site in a mixer attached to or as part of the bore machine. Earth cuttings from the bore hole and the water/clay mixture returns to the bore entry pit where it would be pumped into a receiving tank. The mixture would be filtered for reuse if possible or stored in a tank until it could be discarded in a local landfill approved to receive the material.

Installation of Cable into Conduit

Once the conduit system is installed, the fiber-optic cable would be pulled or blown into the conduits. The installation would be accomplished using a series of hydraulic pullers consisting of a main-line puller and sufficient intermediate assist pullers to ensure smooth pulling within specified tension restrictions. First, the pull line would be attached to a plug that is pushed through the conduit by air pressure. When the plug emerges at the end of the conduit section or access point, the pull line would be attached to the cable through a swivel to prevent the cable from twisting during the pulling operation. Then the pull line would be pulled back though the conduit section, threading the cable through the conduit. The main-line puller would be equipped with a tension limiter and a tension monitor to provide an accurate record of actual pulling tensions encountered. These methods would be used to pull the cable from one handhole to the next. It is sometimes necessary to excavate temporary assist points to facilitate cable installation. In such cases, an excavation approximately 2 feet wide, 3 feet long, and 3 feet deep would be dug to provide access to the conduit; this excavation would be backfilled once the cable is installed.

Trenching

A small trench approximately 10 feet long, 2 feet deep, and 1 foot wide would be required to install the fiber optic line from a pole adjacent to Pigeon Point Road to an existing junction box.

Surface Restoration

Site cleanup and surface restoration would be performed promptly following conduit and cable installation. Cleanup would include removing debris and restoring original surfacing and contours. Any disturbed areas would be returned to their original or better condition.

Installation of Access Vaults

To allow for cable-placing assist locations, cable splice locations, and future access to the buried conduits and fiber, buried access vaults (i.e., handholes) would be placed along the alignment. Once installation is complete, the handholes would be accessed only rarely for maintenance or cable replacement. Each handhole would typically house 80 to 100 feet of cable slack.

Each handhole would be equipped with a traffic-rated lid, even if it would be out of the path of traffic. The lid may be visible at the surface or may be buried just below the surface. Handholes are sized to accommodate pulling fiber through conduits and would be 2 feet by 3 feet. Generally, road shoulders or other easily accessible areas are the preferred locations for handholes. A handhole would be necessary at the beginning and end points and approximately 4 to 6 intermediate handholes would be placed within the alignment at intervals of approximately 300 to 500 feet. These handholes would be installed as the final step in the horizontal directional drill process and installed into the same excavations that would be created as drill entry and exit points. No additional ground disturbance would be required for the handholes.

Splicing of Cable Ends at Access Points

The reels of cables would be spliced where necessary at access points. Appropriate lengths of excess (slack loop) fiber-optic cable—generally at least 30 feet—would be left at all splice locations to allow for cable expansion and contraction due to temperature and for any splicing required in the future. The cable would be spliced in splice cases (i.e., protective encasements) in a cable, with sufficient slack allowed. The splices would be made with a profile alignment fusion splicing machine and protected by heat-shrink tubing.

Pole Replacement

It is estimated that as many as 14 existing poles may need to be replaced due to the condition of the poles and the increased stress caused by adding more fiber-optic cable. Exactly which poles, if any, to be replaced is unknown at this time as the load testing is not complete. The estimate of 14 poles to be replaced is based on past experience with similar projects. If pole replacement is needed, the replacement poles would be of the same type and installed within 3 to 5 feet of the existing pole to be replaced. The process entails installing the replacement pole, removing the existing utilities from the existing pole, reattaching the utilities. and removing the existing pole. In areas where the existing pole also support utilities of another carrier (e.g., AT&T, PG&E), that carrier is responsible for moving their utilities from the old pole to the new pole and removing the pole. Movement of said utilities could take anywhere from 3 to 6 months depending on the utilities maintenance schedule resulting in two poles being at that location during that that period

of time. Where poles do not have shared facilities, the process would typically be completed within 1 work day. Each pole replacement would take 1 day to complete, so it is expected that a total of up to 12 work days (96 hours) of service interruption would take place.

A site of approximately 30 feet by 100 feet would be temporarily disturbed to remove the old pole and replace it with the new pole.

Traffic Controls

Because most of the construction of the project would occur within public road ROWs, traffic would need to be controlled and coordinated. Traffic control measures would conform to California Department of Transportation (Caltrans) specifications as presented in their *Traffic Manual*, Chapter 5, Traffic Controls for Construction and Maintenance Work Zones, available for viewing at http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf/TMChapter5.pdf.

On Hwy 1, it would not be necessary to close any traffic lanes. However, road shoulders would be closed in some locations. For the underground section of the proposed project, construction activities would take place under or just off the existing road shoulder. These work areas would need to be cordoned off in accordance with Caltrans specifications. For the smaller county roads, such as Pigeon Point Road and Bean Hollow Road, it may be necessary to temporarily block one lane of traffic with at least one lane remaining open at all times. When it is necessary to block a lane of traffic, flaggers would be used to direct traffic in the construction zone. Delays to motorists would be anticipated to typically average 1 to 2 minutes.

Access

Construction access would occur primarily within existing road or utility ROWs. No new access roads would be required for construction of the proposed project.

Temporary Construction Work Areas

Staging areas are not expected to be necessary for the proposed project. Contractors would be expected to utilize their existing yards for their equipment and transport the materials needed for the project to the site daily. Should staging areas be necessary on a limited basis, existing paved or improved sites would be used. One potential staging area, a commercial parcel located on the east side of Hwy 1 just south of Gazos Creek Road, has been identified. Part of the site is occupied by a restaurant, and the remainder of the site, including a former fuel station, is currently idle. The area is concrete and asphalt surface. Any staging activities at this location would be confined to the existing paved areas.

Minor, temporary ground-disturbing construction activities would be spread throughout the length of the proposed project alignment. As described above, there would be no grading activity, and ground excavations would be limited to the entry/exit pits, access vaults, hand holes required to install the underground portion of the fiber-optic cable, and replacement pole holes. Anchor rods would be driven directly into the ground without the need for excavation. All other activity would consist of staging and mobilization of construction crews and vehicles primarily in shoulders, turnouts, or driveways along Hwy 1 and local roads. Underground activities would occur entirely within the shoulder of the Hwy 1 ROW. Although aerial installation activities would primarily occur from existing road ROWs, the proposed project alignment deviates from existing road ROWs but remains within the existing utility ROW for a total of approximately 1.9 miles in various locations. In these locations, construction crews would access the poles on foot. Because all work would occur within existing overhead utility and road ROWs, new disturbances within previously undisturbed areas, if any, would be temporary (e.g., one growing season) and limited to small isolated patches leading to or around existing utility poles.

Table 4-2 provides the estimated work areas that would be required for construction activities. These area calculations are inclusive of potential ground disturbance from excavation, but primarily consist of vehicle and construction crew activity areas around existing utility poles and proposed entry/exit pits and vaults.

Table 4-2
Construction Activity – Estimated Work Area Requirements for the Proposed Project

Activity/Equipment Type	Work Area per Site				Number of Sites	Total Temporary Disturbance[2] (ac)	Total Permanent Disturbance (ac)
	Length (feet)	*Width (feet)*	*Square Feet*	*Acres*			
Overhead Activities							
Aerial cable installation crew	4	4	16	0.0004	308	0.113	0.000
Guy wire installation crew	10	10	100	0.002	111	0.207	0.000
Pole replacement crew	100	30	3,000	0.069	14	0.996	0.000
Underground Activities							
Directional bore crew and underground cable installation crew (includes entry/exit pits and underground vaults)	40	20	800	0.018	27	0.496	0.000
Buried vault and marker crew (included traffic rated lid at ground level and markers)	2	3	6	0.000138	7	0.000	0.000964
					Total	**1.812**	**0.001**

[2] This disturbance calculation is conservative and includes physical ground disturbances other than excavation (no grading or vegetation clearing proposed) such as from overland travel or vehicle maneuvering.

Construction Equipment and Personnel

Table 4-3 lists the typical construction equipment that would be needed for the various construction activities and the estimated maximum hours of operation. These estimates are based on the following quantities and assumed average production rates.

- Horizontal directional boring: approximately 7,300 linear feet, with 1 crew averaging 400 feet per day for 18 days.
- Buried vault: approximately 6 vaults to place, with 1 crew averaging 2 vaults per day for 3 days.
- Pole Replacement: up to 14 poles may need to be replaced on the project. One crew can replace one pole per day.
- Cable placement:
  - Aerial: approximately 12.8 miles (67,584 linear feet) to place, with 1 crew averaging 1,600 feet per day for 42 days.
  - Buried (into conduit): approximately 1.4 miles (7,300 linear feet) to place, with 1 crew averaging 2,000 feet per day for 4 days.

Table 4-3
Equipment Requirements and Crew Size for the Proposed Project

Activity/Equipment Type	Equipment Requirements				Crew Size
	Use	*Default Horsepower*	*Hours per Day of Operation (Average)*	*Total Days*	
Aerial cable installation crew					4
Bucket truck	Access poles, string fiber, trim vegetation	200	8	42	
1-ton supply truck	Haul materials/reels of conduit	200	6	42	
Pole replacement crew					5
Crane	Lift, position poles	500	4	7	
Backhoe	Excavate pole location	105	3	7	
1-ton supply truck	Haul materials	200	6	7	
Pickup truck	Transport construction personnel	150	3	7	
Directional bore crew					4
Bore machine	Excavate tunnel	115	8	18	
Backhoe	Excavate entry and exit pits	105	3	18	
Generator	Operate power tools	50	6	18	

Table 4-3
Equipment Requirements and Crew Size for the Proposed Project

Activity/Equipment Type	Equipment Requirements				Crew Size
	Use	*Default Horsepower*	*Hours per Day of Operation (Average)*	*Total Days*	
1-ton supply truck	Haul materials	200	6	18	
Underground conduit/cable installation crew					5
Cable truck/main-line puller	Hold spools of cable	200	8	4	
Compressor	Operate air tools	50	8	4	
Generator	Operate power tools	50	8	4	
Backhoe	Excavate trenches	105	2	4	
1-ton supply truck	Haul materials/reels of conduit	200	6	4	
Buried vault and marker crew					5
Backhoe	Excavate trenches	105	8	3	
1-ton supply truck	Haul materials	200	6	3	

It is anticipated that up to 20 workers will be employed during different construction phases of the project, consisting of multiple 4- to 5-person crews.

Construction Schedule

Construction of the proposed project would commence after securing all required approvals and permits. The construction of all project components would be expected to last approximately 2 months and would require using some crews working simultaneously on different project components. Construction would generally occur between 7:00 a.m. and 6:00 p.m. on weekdays and would comply with any work time frame restrictions that Caltrans or San Mateo County may propose. Construction could take place during any season of the year but work would not be conducted during substantial rain events.

Table 4-4 provides the proposed schedule for construction of the proposed project.

Table 4-4
Estimated Duration of Construction Tasks for the Proposed Project

TASK	DURATION (work days)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Project Initiation Training	1								
Aerial Cable Installation	42								
Utility Pole Replacement	12								
Underground Conduit Installation (HDD)	18								
Underground Vault and Marker Installation	3								
Underground Cable Installation	4								

HDD = horizontal directional drilling

4.8 Operation and Maintenance

Following construction of the proposed project, operations and maintenance activities would be minimal. Operation is limited to the operation of the new fiber-optic line and associated equipment installed to the existing utility poles.

Since the proposed project would be located within an existing utility ROW, there are as-needed maintenance activities, similar to those proposed, already occurring at pole locations and within the utility ROW to maintain these existing utilities. Maintenance activities associated with the proposed project would consist of periodic (typically annually) inspection by patrol in a pickup truck of the project route facilities to determine if repairs and/or vegetation trimming would be required. If repairs are necessary, such as reattaching a loose or detached cable from a pole, these activities would be similar to cable/pole installation activities as described above in Section 4.7 Construction Activities. Since General Order 95 does not require vegetation clearance for fiber-optic lines, tree trimming would be limited to situations where a tree creates a hazardous condition to the cable or a utility pole. Therefore, impacts associated with maintenance would generally be similar to overhead construction-related impacts; however, the duration, intensity, and/or frequency of said activities would be substantially less.

4.9 Applicant Proposed Measures

The PEA details project protocols that would be followed during project-related activities (ICF 2013). Project protocols are specific to environmental issue areas and are herein termed

Applicant Proposed Measures (APMs). Table 4-5 lists APMs proposed as project design features. These APMs are analyzed as part of the proposed project.

Table 4-5
Applicant Proposed Measures

APM Number	Description
	Aesthetics
APM-AES-1	Keep construction and staging areas orderly, free of trash and debris, and restore areas disturbed by project construction along the proposed route to their pre-project condition.
APM-AES-2	• Identify and comply with local regulations and requirements concerning architectural design; • Design project facilities to be unobtrusive and to not conflict with the character of the surrounding setting; restore conduit installation sites to pre-construction conditions; and • Prior to construction, consult with the local agencies associated with each project area regarding the appropriate architectural design practices that will be implemented before, during, and after construction.
APM-AES-3	As part of its standard construction operating procedure, ensure that construction lights will be directed away from the visual field of motorists and pedestrians along any streets or right-of-ways.
	Air Quality
APM AQ-1	Implement BAAQMD basic construction measures to reduce dust emissions • Crown Castle will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce dust emissions. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.
APM AQ-2	Implement BAAQMD basic construction measures to reduce exhaust emissions Crown Castle will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce exhaust emissions. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
	Biological Resources
APM-BIO-1	*Conduct spring surveys for special-status plants within the project area* Prior to construction, a qualified botanist will complete spring surveys for special-status plants within the project area to determine the presence or absence of special-status plants. The survey will be completed by qualified botanists and will be conducted during the appropriate period(s) necessary to observe special-status plants known to occur in the region. If a population of a special-status plant species occurs within the project area, the population will be clearly staked and flagged in the field by a qualified botanist prior to construction so the population can be avoided. If the population cannot be avoided during construction, Crown Castle will minimize impacts by reducing the work area to the smallest area necessary to complete the work. Crown Castle will conduct project activities and necessary ground disturbance in a manner that is consistent with the successful reestablishment of the species to the extent feasible. The specific actions necessary will depend on the biology of the species, and

Table 4-5
Applicant Proposed Measures

APM Number	Description
	will be determined through consultation with the USFWS and CDFW. Generally actions include waiting for the plant species to go to seed and collecting the seed for future planting and saving the top 6 inches of top soil (which contains the seed bank) separate from other excavated soil.
APM-BIO-2	*Conduct a preconstruction nesting survey to minimize impacts to nesting birds and raptors (February through August)* If the proposed project is completed outside of the nesting season of birds, no additional measures will be necessary. If construction will take place during the nesting season (generally February through August) Crown Castle will conduct preconstruction nesting bird surveys. If an active nest is identified during the surveys, Crown Castle, in consultation with CDFW and USFWS, will establish a no-construction zone until the breeding season is completed or subsequent bird/raptor surveys confirm that all offspring have fledged and no new nests have been established. Generally, these no construction zones are 50 feet for passerine birds and 250 feet for raptors.
APM-BIO-3	*Conduct preconstruction survey to minimize impacts to wintering monarch butterflies for construction in late fall and winter months* If the proposed project is scheduled to occur during the late fall and winter months and trimming of eucalyptus trees is required, a biologist will conduct a preconstruction survey to determine if the trees that require trimming and the surrounding trees support overwintering clusters of monarch butterflies. If clusters of monarch butterflies are present, Crown Castle, in consultation with CDFW, will establish a no construction zone until after the monarch butterflies have migrated. Generally, this no construction zone is 30 feet from wintering monarch butterflies.
APM-BIO-4	*Measures to minimize impacts to California red-legged frogs, San Francisco garter snakes, and western pond turtles* Work should be avoided from October 16 (or the first measurable rainfall of 1 inch or greater) to May 14. If work cannot be avoided during this period then it is recommended that a qualified biological monitor be present for all ground-disturbing activities. It is recommended that a qualified biologist familiar with California red-legged frogs, San Francisco garter snake, and western pond turtle conduct a preconstruction survey immediately prior to construction in areas where ground disturbance will occur. During the preconstruction survey, the biologist will also look for and identify burrows that could be used by California red-legged frogs. These areas will be flagged (as practical) for avoidance. The biologist will remain onsite for the duration of any construction activities involving excavation or the use of heavy machinery or equipment. Prior to work the construction crew will receive worker environmental awareness training. Training will include review of environmental laws and protective measures that must be followed by all personnel to reduce or avoid effects on protected species during construction activities. Any holes, trenches, pits, and/or tanks that are left open overnight will either be covered to prevent entry or one side will be sloped to allow wildlife to escape. Open holes, trenches, pits, and/or tanks left overnight will be checked by a qualified biologist at the start of construction each day to determine whether trapped wildlife are present. If wildlife are present, they will be removed by the biologist before the hole, trench, or pit is filled. Plastic monofilament netting (erosion control matting) or similar material containing netting will not be used at the project. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds. Handling of California red-legged frogs is prohibited without a valid federal take permit and handling of San Francisco garter snakes is prohibited without a valid federal take permit and a CESA Section 2081 Incidental Take Permit. Any California red-legged frogs or San Francisco garter snakes observed on the work site will be allowed to move offsite on their own. If California red-legged frogs, San Francisco garter snakes, and western pond turtles are observed on or adjacent to the work site, and are in danger of injury, construction in the vicinity will cease until no danger exists for California red-legged frogs or San Francisco garter snakes.

Table 4-5
Applicant Proposed Measures

APM Number	Description
	Cultural Resources
APM-CUL-1	• If buried cultural resources, such as chipped or ground stone, historic debris, building foundation, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate measures in consultation with the CPUC, State Historic Preservation Officer, and other appropriate agencies • In the event that fossil remains are encountered, either by the cultural resources monitor or by construction personnel, qualified paleontological specialists will be contacted. Construction within 100 feet of the find in non-urban areas and 50 feet in urban areas will be temporarily halted or diverted until a qualified vertebrate paleontologist examines the discovery.
	Greenhouse Gas Emissions
APM GHG-1	Implement BAAQMD Best Management Practices to reduce GHG emissions To ensure that short-term GHG emissions are reduced as much as feasible and the proposed project does not result in a considerable contribution to GHG levels, Crown Castle will require all construction contractors to implement the following GHG emission reduction measures to the extent they are feasible. • Using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15% of the fleet. • Recycling or reusing at least 50% of construction waste or demolition materials.
	Hazards and Hazardous Materials/Fire Safety
APM-HAZ-1	• Ensure proper labeling, storage, handling, and use of hazardous materials in accordance with best management practices and the Occupational Safety and Health Administration's HAZWOPER requirements. • Ensure that employees are properly trained in the use and handling of hazardous materials and that each material is accompanied by a material safety data sheet. • Any small quantities of hazardous materials stored temporarily in staging areas will be stored on pallets within fenced and secured areas and protected from exposure to weather. Incompatible materials will be stored separately, as appropriate. • All hazardous waste materials removed during construction will be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility, to the extent necessary to ensure the area can be safely traversed. • Significant releases or threatened releases of hazardous materials will be reported to the appropriate agencies.
	Hydrology and Water Quality
APM-HYD-1	Prior to non-storm discharges into surface waters, provide documentation of obtaining all necessary and applicable approvals, including the following: • Implementation of appropriate Best Management Practice (BMP's) to minimize the potential for storm-water pollutants. These BMPs may include, but not necessarily be limited to, the utilization of settling ponds or screens to reduce suspended sediment loads
APM-HYD-2	Erosion Controls: • Excavated or disturbed soil will be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile. • All stockpiled material will be covered or contained in such a way that eliminates offsite runoff from occurring. • Upon completion of construction activities, excavated soil will be replaced and the area restored to pre-construction conditions.

Table 4-5
Applicant Proposed Measures

APM Number	Description
	Land Use
APM-LU-1	Submit written documentation, including evidence of review by the appropriate public works, planning, and/or community development agency for the applicable jurisdictions. This documentation will include the following: • Site plan showing the dimensions and location of the finalized alignment; • Evidence that the project meets all necessary requirements; • Evidence of compliance with design standards; • Copies of any necessary permits or conditions of approval; and • Records of any discretionary decisions made by of the applicable jurisdictions.
	Noise
APM-NOI-1	• Require construction contractors to comply with the construction-hour limitations and construction equipment standards set forth by each local jurisdiction. • All equipment will have sound-control devices no less effective than those provided on original equipment; • No equipment will have an unmuffled exhaust; • Construction equipment will be located as far from sensitive receptors (e.g., residences, schools, places of worship, and hospitals) as possible; and • If traffic control devices requiring electrical power are employed within 500 feet of sensitive receptors, the devices will be battery/solar powered instead of powered by electrical generators. In addition, implement a variety of measures to reduce noise levels from directional boring where noise levels of 60 dBA or greater will be experienced at sensitive receptor locations. For example: • Special mufflers can be applied to the boring rig exhaust; • Shielding can be erected between the noise source and the receptor; or • As an extreme measure, a temporary enclosure can be erected to house the boring operation. Implement all reasonable and customary noise reduction measures and post the name and telephone number of a person for the public to contact to resolve noise-related problems.
	Recreation
APM-REC-1	• Schedule construction to avoid peak use periods (e.g., weekends and holidays) for recreational facilities. • All ground surfaces will be restored as close to pre-project conditions as soon as possible or practicable.
	Traffic
APM-TRA-1	• As deemed necessary by the applicable jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. • Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) will be used to minimize impacts to traffic flow. • Develop circulation and detour plans to minimize impacts to local street circulation. This will include the use of signage and flagging to guide vehicles through and/or around the construction zone. • Schedule truck trips outside of peak morning and evening commute hours. • Limit lane closures during peak hours to the extent possible. • Use haul routes minimizing truck traffic on local roadways to the extent possible. • Include detours for bicycles and pedestrians in all areas potentially affected by project construction. • Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. • Store construction materials only in designated areas. • Coordinate with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary.

Table 4-5
Applicant Proposed Measures

APM Number	Description
APM-TRA-2	To avoid impeding emergency vehicle traffic around the construction activities, develop an Emergency Vehicle Access Plan that includes the following: • Evidence of advanced coordination with emergency service providers, including but not necessarily limited to police departments, fire departments, ambulance services, and paramedic services; • Emergency service providers will be notified of the proposed project locations, nature, timing, and duration of any construction activities, and will be asked for advice about any road access restrictions that could impact their response effectiveness; and • Project construction schedules and routes designed to avoid restricting movement of emergency vehicles to the best extent possible. Provisions to be ready at all times to accommodate emergency vehicles at locations where access to nearby properties may be blocked. Provisions could include the use of platings over excavations, short detours, and/or alternate routes.
APM-TRA-3	Prepare and implement a traffic safety plan and coordinate with local transportation and emergency response agencies to avoid potential roadway safety hazards.
APM-TRA-4	Limit all parking to right-of-way and pre-approved staging areas to address the increased parking demand created by construction activities.
Utilities and Service Systems	
APM-USS-1	Recycle and dispose of construction materials to minimize generation of solid waste resulting from construction activities.

Source: ICF 2013.

4.10 Key Permits and Approvals

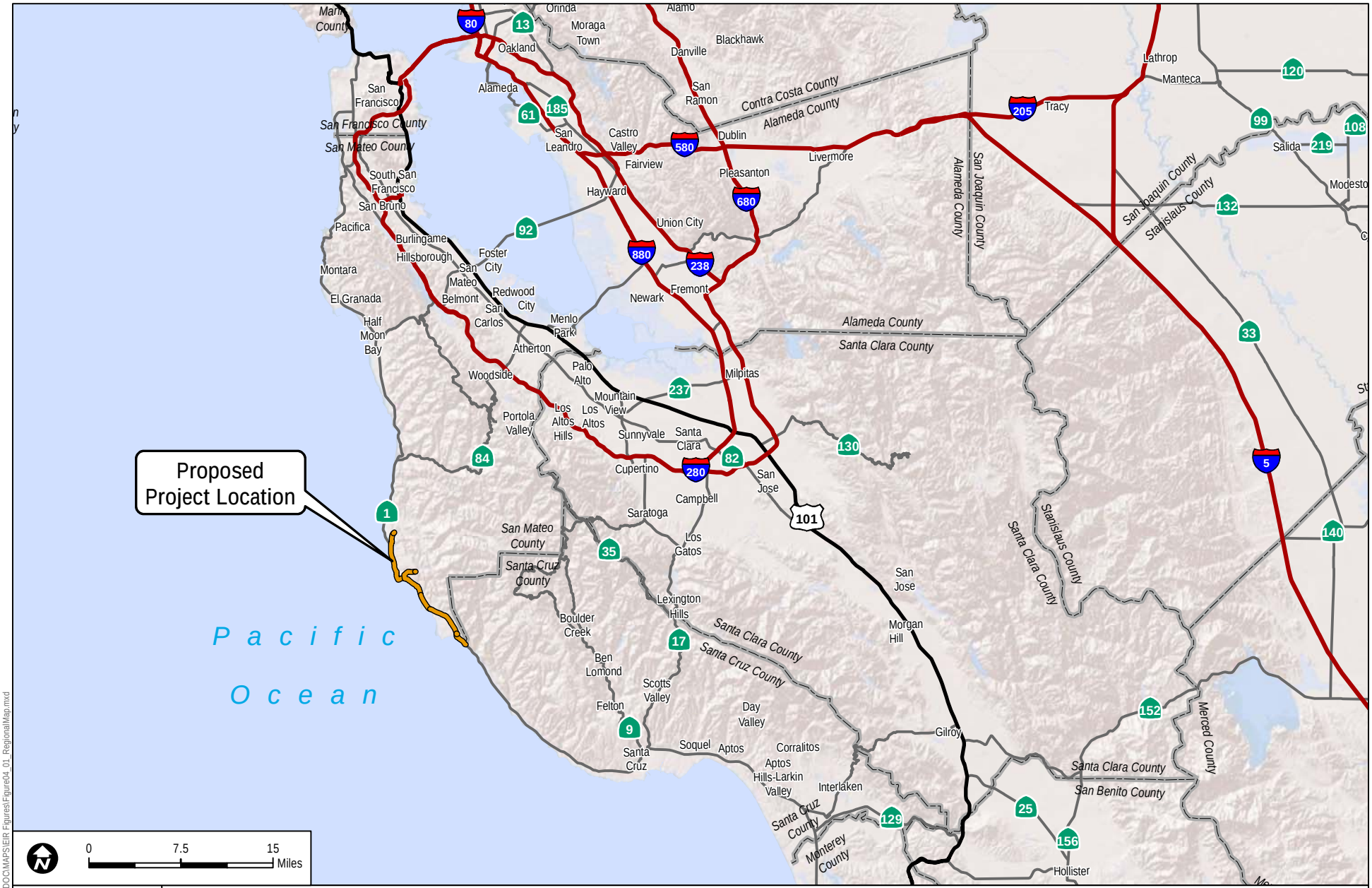
Key permits and approvals presumed necessary for implementation of the proposed project are presented below (Table 4-6).

Table 4-6
Permits and Approvals Required for Construction

Agency	Permit/Approval
California Public Utilities Commission	Authority to Construct
California Department of Transportation	Encroachment Permit
San Mateo County Planning Department	Use Permit and Building Permit subject to Coastal Development Review

4.11 References

ICF International. 2013. Crown Castle Network San Mateo County Project, Amended Proponent's Environmental Assessment. Prepared for Crown Castle NG West Inc. August 2013.



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SOURCE: ESRI 2013

FIGURE 4-1

Regional Location

7841

CROWN CASTLE SAN MATEO COUNTY PROJECT

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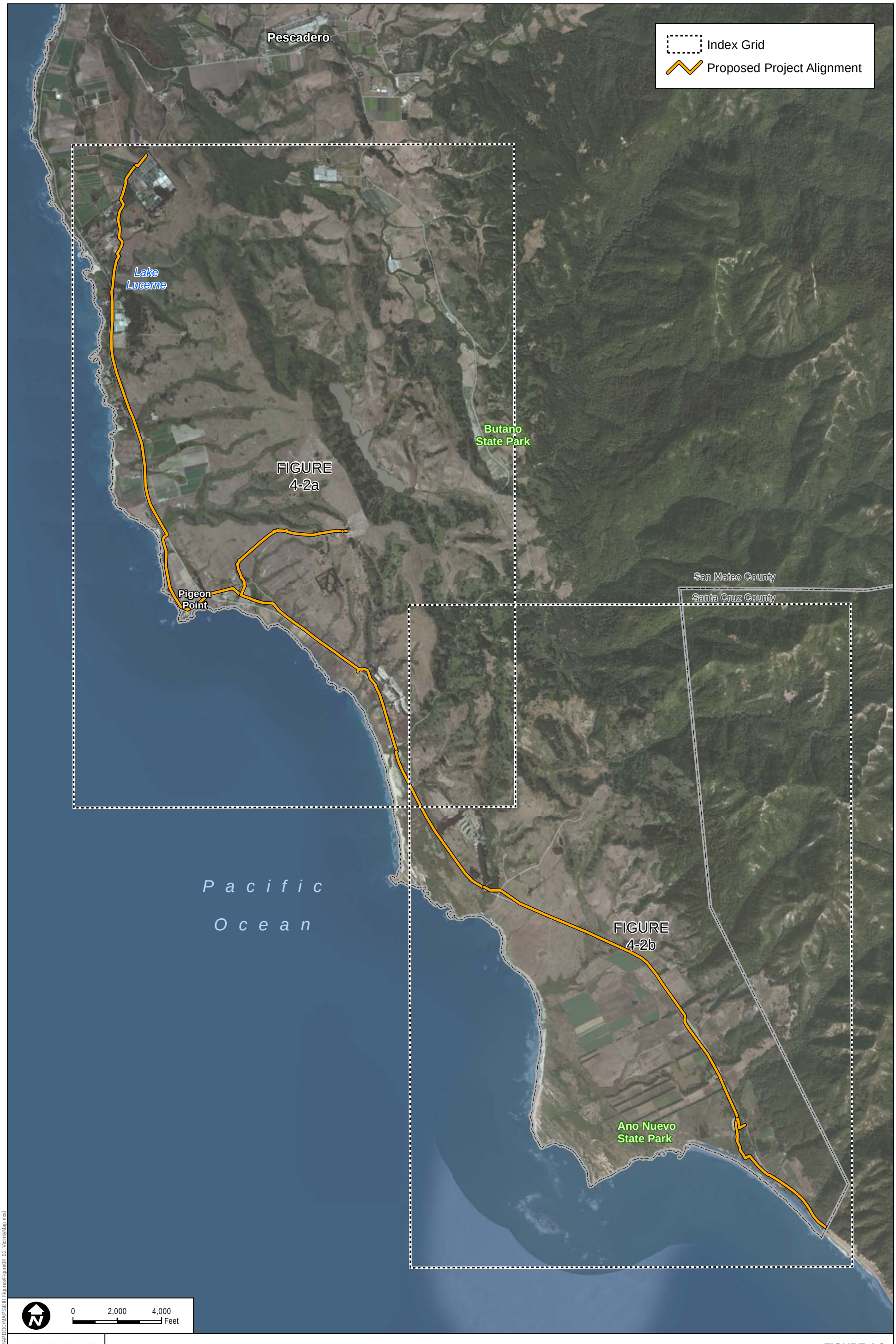

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SOURCE: ESRI 2013

FIGURE 4-2
Index Map

CROWN CASTLE SAN MATEO COUNTY PROJECT

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SOURCE: ESRI 2013

FIGURE 4-2a

Proposed Alignment

7841

CROWN CASTLE SAN MATEO COUNTY PROJECT

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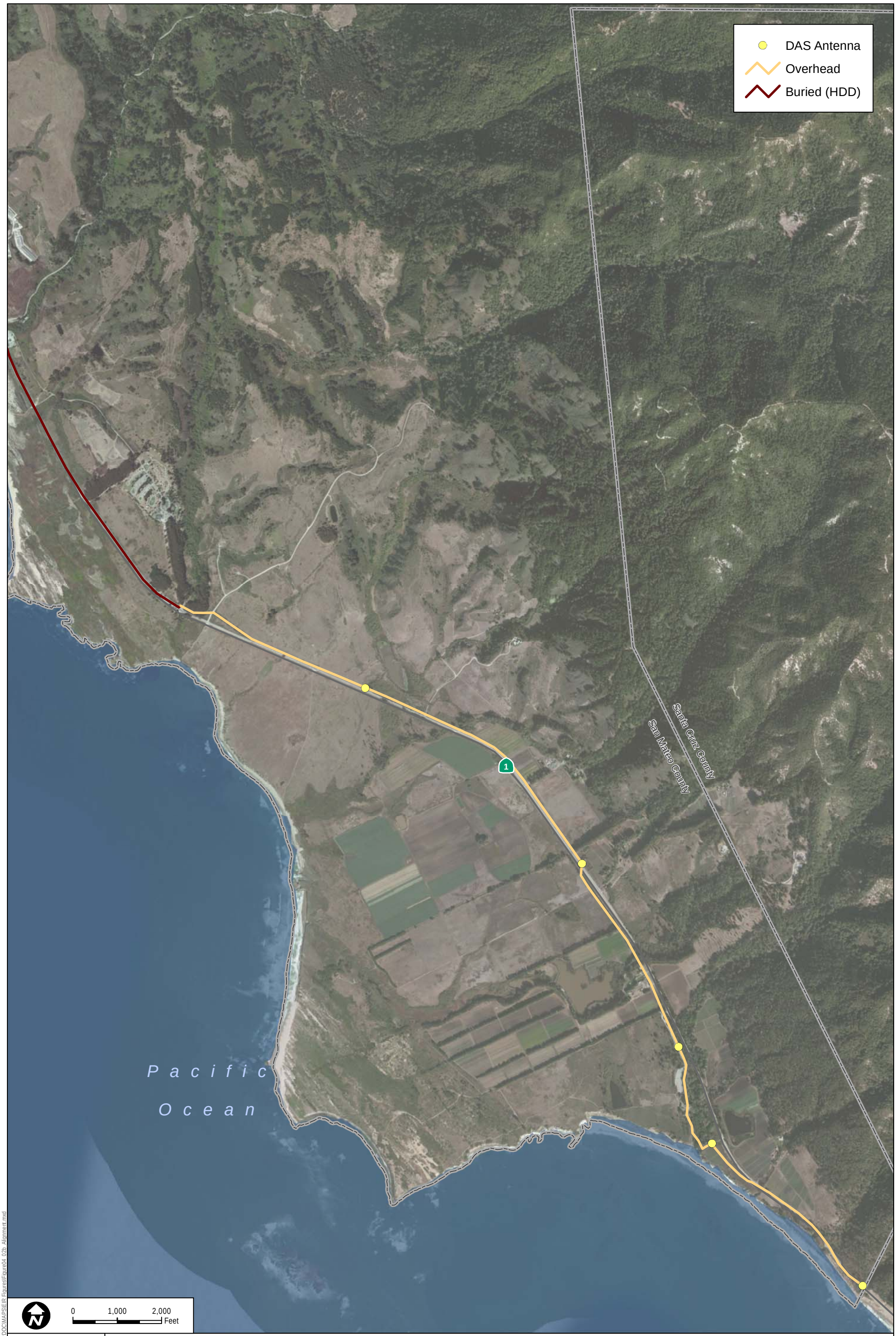

DUDEK

SOURCE: ESRI 2013

FIGURE 4-2b

Proposed Alignment

7841

CROWN CASTLE SAN MATEO COUNTY PROJECT

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5.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

5.1 Aesthetics

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

5.1.1 Regulatory Setting

Federal

There are no applicable federal regulations or policies related to aesthetics, light, or glare.

State

In 1963, the California Legislature created the Scenic Highway Program to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to the highways. The state regulations and guidelines governing the Scenic Highway Program are found in Section 260 et seq. of the Streets and Highways Code. A highway may be designated as scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view. The Scenic Highway Program identifies Highway 1 (Hwy 1) from the Santa Cruz County line north to the southern city limit of Half Moon Bay as a state-designated scenic highway (Caltrans 2011).

Local

San Mateo County General Plan

The San Mateo County General Plan contains visual quality goals, policies, and objectives intended to protect the visual resources within San Mateo County. Included among them are specific goals and objectives that address utility development in designated scenic corridors. The majority of the proposed project would be located within a scenic corridor identified by San Mateo County (County of San Mateo 1986). The General Plan contains the following relevant policies:

4.20 Utility Structures

Minimize the adverse visual quality of utility structures, including roads, roadway and building signs, overhead wires, utility poles, T.V. antennae, windmills and satellite dishes.

4.21 Scenic Corridors

Protect and enhance the visual quality of scenic corridors by managing the location and appearance of structural development.

4.30 Public Utilities

Encourage the placement of new and existing public utility lines underground.

4.63 Utilities in State Scenic Corridors

a. Install new distribution lines underground.
b. Install existing overhead distribution lines underground where they are required to be relocated in conjunction with street improvements, new utility construction, etc.
c. Consider exceptions where it is not physically practical due to topographic features; however, utilities should not be substantially visible from any public road or developed public trail.

San Mateo County Local Coastal Program

The Visual Resources Component of the Local Coastal Program (LCP) is intended to protect the scenic and visual qualities of areas within the County's coastal zone, defined as the area extending landward 5 miles from the mean high tide line. The LCP also specifically regulates development siting and design within the corridors adjacent to scenic roads in the coastal zone.

The San Mateo County LCP contains the following relevant policies intended to protect coastal views and ensure the visual compatibility of new development, including utilities, within the coastal zone.

8.15 Coastal Views

Prevent development (including buildings, structures, fences, unnatural obstructions, signs, and landscaping) from substantially blocking views to or along the shoreline from coastal roads, roadside rests and vista points, recreation areas, trails, coastal accessways, and beaches.

8.22 Utilities in State Scenic Corridors

a. Install new distribution lines underground.

b. Install existing overhead distribution lines underground where they are required to be relocated in conjunction with street improvements, new utility construction, etc.

c. Exceptions to a. and b. may be approved by the Planning Commission where it is not physically practicable due to topographic features; however, utilities shall not be substantially visible from any public road or developed public trails.

8.31 Regulation of Scenic Corridors in Rural Areas

a. Apply the policies of the Scenic Road Element of the County General Plan.

b. Apply Section 6325.1 (Primary Scenic Resources Areas Criteria) of the Resource Management (RM) Zoning District as specific regulations protecting scenic corridors in the Coastal Zone.

c. Apply the Rural Design Policies of the LCP.

San Mateo County Zoning Regulations

The San Mateo County Zoning Regulations specify the uses permitted in each of the 30 established zoning districts in the County. The entirety of the proposed project alignment traverses a combined zoning district, Planned Agricultural District/Coastal Development District (PAD/CD).

A relatively short portion of the proposed alignment along Hwy 1 is an officially designated state scenic highway; therefore, per the San Mateo County LCP Section 8.31 Regulation of Scenic Corridors in Rural Areas, the following policies of Section 6325.1, Primary Scenic Resources Areas Criteria, are relevant.

Section 6325.1 Primary Scenic Resources Area Criteria

a. Public views within and from Scenic Corridors shall be protected and enhanced, and development shall not be allowed to significantly obscure, detract from, or negatively affect the quality of these views. Vegetative screening or setbacks may be used to mitigate such impacts. Development visible from Scenic Corridors shall be so located and designed as to minimize interference with ridgeline silhouettes.

m. No development shall be permitted to obstruct or significantly detract from views of any Scenic Area of Landscape Feature from a Scenic Corridor.

The following land use policies and objectives of Section 6512, Permit Requirements and Standards for Co-Location Facilities, are applicable.

Section 6512.2 Development and Design Standards for New Wireless Telecommunication Facilities that are not Co-Location Facilities

e. The adverse visual impact of utility structures shall be avoided by: (1) siting new wireless telecommunication facilities outside of public viewshed whenever feasible; (2) maximizing the use of existing vegetation and natural features to cloak wireless telecommunication facilities; and (3) constructing towers no taller than necessary to provide adequate coverage. When visual impacts cannot be avoided, they shall be minimized and mitigated by: (a) screening wireless telecommunication facilities with landscaping consisting of non-invasive and/or native plant material; (b) painting all equipment to blend with existing landscape colors; and (c) designing wireless telecommunication facilities to blend in with the surrounding environment. Attempts to replicate trees or other natural objects shall be used as a last resort. Landscaping shall be maintained by the property or facility owner and/or operator. The landscape screening requirement may be modified or waived by the Community Development Director or his/her designee in instances where it would not be appropriate or necessary, such as in a commercial or industrial area.

f. Paint colors for the co-location facility shall minimize its visual impact by blending with the surrounding environment and/or buildings. Prior to the issuance of a building permit, the applicant shall submit color samples for the co-location facility. Paint colors shall be subject to the review and approval of the Planning and Building Department. Color verification shall occur in the field after the applicant has painted the equipment the approved color, but before the applicant schedules a final inspection.

g. The exteriors of co-location facilities shall be constructed of non-reflective materials.

h. The wireless telecommunication facility shall comply with all the requirements of the underlying zoning district(s), including, but not limited to, setbacks, and Coastal Development Permit regulations in the CZ or CD zones.

i. Except as otherwise provided below, ground-mounted towers, spires and similar structures may be built and used to a greater height than the limit established for the zoning district in which the structure is located; provided that no such exception shall cover, at any level, more than 15% in area of the lot nor have an area at the base greater than 1,600 sq. ft.; provided, further that no tower, spire or similar structure in any district shall ever exceed a maximum height of 150 feet.

    1. In the PAD, RM, RM-CZ, TPZ and TPZ-CZ districts, in forested areas, no structure or appurtenance shall exceed the height of the forest canopy by more than 10% of the height of the forest canopy, or five feet, whichever is less.

Section 6512.4 Additional Requirements and Standards for Wireless Telecommunication Facilities in the Coastal Zone

a. New wireless telecommunication facilities shall not be located between the first public road and the sea, or on the seaward side of Highway 1 in rural areas, unless no feasible alternative exists, the facility is not visible from a public location, or will be attached to an existing structure in a manner that does not significantly alter the appearance of the existing structure.

b. New wireless telecommunication facilities shall comply with all applicable policies, standards, and regulations of the Local Coastal Program (LCP) and the CZ or CD Zoning District.

5.1.2 Environmental Setting

The study area described in this section consists of the viewshed of the proposed project alignment, which generally corresponds to the coastal terrace along Hwy 1. Beyond roughly 0.25 mile of the proposed project alignment, structures within the utility right-of-way (ROW) are no longer visible or distinguishable from other landscape features; therefore, areas beyond 0.25 mile are considered outside of the study area.

Existing Visual Character

Scenic Highways

The proposed project alignment follows an approximately 14.2-mile route along Hwy 1 and Pigeon Point and Bean Hollow Roads through the southern portion of unincorporated coastal San

Mateo County. Approximately 11.5 miles of the proposed project would be within the viewshed of portions of Hwy 1 that have been designated a scenic highway (Caltrans 2011). Within the project alignment, Hwy 1 ranges from immediately adjacent to the bluff at the southernmost end, to over 1 mile inland, with much of the highway and alignment approximately 200 feet or more inland from the Pacific Ocean. This stretch of Hwy 1 winds through the landscape, with rolling hills visible east of the highway. Agricultural and coastal prairie lands, as well as the Pacific Ocean, dominate westward views. A few ranches and farms, occasional residences, remnant stands and very small patches of knobcone pine forest, and coastal prairie lands are evident along the route (California State Parks 2011, as cited in ICF 2013).

Scenic Vistas

Although informal scenic vistas are available from other locations within the study area, there are several areas formerly designated as a scenic viewpoint within both Año Nuevo State Park and Pigeon Point Light Station State Park. At the Point Light Station State Historic Park, there are four public viewpoints identified in the park brochure; they are located on the southern and western sides of the lighthouse and offer southerly, westerly, and northwesterly views of the Pacific Ocean and coastal bluffs (California State Parks 2011). At Año Nuevo State Park, there are two public lookout points identified in the park brochure; one is located at the tip of Franklin Point, and the other is located about 0.50 mile west of the parking area and visitor center (California State Park 2012). The lookout points offer southerly and westerly views of the Pacific Ocean and coastal bluffs.

Natural Landscape Features

The primary visual resource within the proposed project area is the Pacific Ocean and the associated coastal landforms, including beaches, lagoons, bluffs, and promontories. The coastal scenery is one of the main elements that drive the tourism- and recreation-related uses in the area. Panoramic views of the Pacific Ocean are visible from Hwy 1, recreational trails, local roadways, and from public and private properties in the project area. Depending on viewer type (e.g., motorist, trail user, overnight visitor), views of the coastal scenery may range from short intermittent glimpses to broad long-lasting views. Figure 5.1-1 shows some representative views along the proposed project alignment including a view of agricultural uses (Photo 1), an inland open space view of rangeland in the distance (Photo 2), a foreground view of utility infrastructure (Photo 3), and a view of the Pacific Ocean and the coastal marine terrace (Photo 4). The electric utility poles along which the fiber optic cable would be strung are visible in all four views to various degrees. Photo 3 shows the electric line (the three wires at the top) accompanied by an AT&T telecommunications line halfway down the pole.

Views within the study area vary by season and under different weather conditions, such as sunny versus foggy. Seasonal differences include green vegetation turning tan or brown;

contrasting evergreen vegetation; fallow, tilled, or planted fields; and seasonal wildflowers and crops. Due to the range in distances away from the ocean of Hwy 1, views of the ocean and coastal landforms are frequently obscured or limited by foreground vegetation along the ROW, by intervening topography, by sheer distance and angle of view.

Built Features of the Landscape

The landscape along Hwy 1, local roads and certain public recreational areas is characterized by built features that—where present—range from being subordinate to being co-dominant in the landscape. Existing development near the proposed alignment is primarily rural in nature and sparsely scattered. The most immediate and prominent built features visible from the highway and local roads consist of transportation and utility infrastructure, which with some exceptions typically occupies foreground views. However, viewers' attention is typically focused toward the aesthetically pleasing elements of the landscape—namely westerly views of the coast and ocean, and to a lesser degree, open views of agricultural fields and/or rangeland.

Built features can contribute either negatively and positively to the visual quality of an area, depending on their aesthetic qualities and their compatibility with the surrounding landscape character. For example, a historic barn or lighthouse would be a strongly positive contributor to the visual quality of an area because they would be compatible with the existing coastal agricultural setting. On the other hand, excessive utility lines, heavy industrial facilities, and or residential or agricultural structures that are poorly maintained or architecturally incongruent with the visual setting would detract from the visual quality of an area.

Information regarding existing facilities and uses in the project area was collected using data gathered on the site visit conducted by Dudek on November 21, 2013, from aerial photographs, and from ICF (2013). The data indicate a number of existing structures and uses are scattered throughout the study area, including the following:

- **Residences:** There are about a few dozen large-lot rural single-family homes scattered within the visual study area. These homes are not always visible from public roadways and are often partially or fully screened by vegetation and/or landforms. In the central and southern portion of the study area, these residences are isolated and surrounded by open field and/or rangeland, and in the northern portion of the study area near Pescadero, the residences tend to be clustered and screened by vegetation.
- **Agricultural Facilities/Structures:** Agricultural facilities in the study area generally consist of barns, greenhouses, storage sheds, boundary fencing, utility lines, and/or stock ponds. Like the residences, these tend to be partially or fully screened from view by vegetation and/or landforms, and separated by wide expanses of fields and/or open range. Some of the farms offer tours, products, and/or other services to visitors along Hwy 1 (e.g.,

Pie Ranch). Agricultural/ranching operations within the study area include Swanton Berry Farm/Coastways Ranch, Año Nuevo Flower Growers, Pie Ranch, Cascade Ranch Historic Farm, K&S Ranch, R Cevasco Nursery, Durigano's Nursery, and Bay City Flower Company. Larger concentrations of greenhouse and nursery structures, which tend to detract slightly from the visual setting, are visible briefly from public roads where present.

- **Commercial Services**: Commercial and industrial uses are not found within the study area, with the exception of Hwy 1 Brewing Company Restaurant and Gazos Grill located on the east side of Hwy 1 approximately 300 feet south Gazos Creek Road. In addition, some of the farms offer products and services to the public. Approximately 1 mile north of Coastways Ranch off Hwy 1, Pie Ranch operates a large organic farm and public farm stand and offers food education and farmer training programs. Swanton Berry Farm operates a public, seasonal u-pick facility at Coastways Ranch where customers are provided the opportunity to pick their own kiwis and berries.
- **Visitor-Serving Facilities and Overnight Accommodations**: Visitor-serving facilities in the study area include Pigeon Point Light Station State Park/Hostelling International USA, Año Nuevo State Park, Bean Hollow State Beach, and Costanoa Lodge/ KOA Kampgrounds. Costanoa Lodge /KOA Kampgrounds, a private resort east of Hwy 1 on Rossi Road, offers a variety of overnight accommodations including tent cabins, RV campsites, and equestrian campsites on private land, as well as access to public trails within Año Nuevo State Park. In addition to its historic lighthouse, Pigeon Point Light Station State Historic Park offers overnight hostel accommodations, hiking trails, wildlife viewing and picnic facilities. Bean Hollow State Beach and numerous other beaches along Hwy 1 provide coastal beach access and have parking and restroom facilities. The Dickerman-Steele and Cascade ranches are historical ranches located within the state park, and Pigeon Point Lighthouse is a historic cultural resource.
- **Parking/Pullout Areas**: Several public parking lots and informal, unpaved highway pullouts are located along Hwy 1 providing parking for coastal access beaches and trails. There are small paved parking lots established in Año Nuevo State Park, Pigeon Point Light Station State Historic Park, next to the Gazos Grill, and within Bean Hollow State Beach.

Existing Utility Poles/Lines

Existing utility poles along Hwy 1 are occasionally visible in foreground views from the highway as well as in the middle-ground and background views from other areas, and sometimes concealed by vegetation. The existing poles are wood, and do not greatly detract from the scenic character along Hwy 1. While many of the poles carry only utility lines, a number of them also support transformers and bulkier line inputs that are visible within the roadway's viewshed. This is evident especially where two or three utility lines converge. Some of the existing poles have

existing guy wires for stability. Some of the wires are not visible or noticeable because existing vegetation surrounding the base of the poles hides them. In addition, at approximately 0.7 mile north of the southern end of the proposed project area, the existing utility line diverges from Hwy 1 and travels westward on San Mateo County ROW through the Año Nuevo State Park. For approximately 0.8 mile, the utility lines are obscured by roadside vegetation and are not visible from Hwy 1 until it again parallels the roadway, approximately 360 feet north of the park entrance. Within the Año Nuevo State Park, the utility lines are visible from many locations along the park access road from Hwy 1 to the visitor's center, which is comprised of the historic Dickerman-Steele Ranch. However, dense, tall, and overhanging vegetation obscures views of the utility lines from some locations along the access road.

North of Pie Ranch, the utility lines cross from the southwest to the northeast side of Hwy 1 and remain on this side of Hwy 1 for the remainder of the proposed project alignment, which also passes the historic Cascade Ranch. There are no utility lines or poles along Hwy 1 from north of the Costanoa Lodge/KOA entrance until just north of the Hwy 1 Brewing Company Restaurant. From the Hwy 1 Brewing Company Restaurant to just south of the southernmost entrance for Pigeon Point Road, the utility lines along Hwy 1 following the proposed project alignment have fiber-optic cables attached approximately midway up the pole. The fiber-optic line continues to follow Hwy 1 eastward and up the coast, diverging from the proposed project alignment, and the utility lines travel northward and inland along Pigeon Point Road for approximately 1.8 miles, following the proposed project alignment.

Verizon Wireless has constructed a 77-foot-tall monopole cellular tower, six attached 6-foot panel antennae, and one attached 4-foot-diameter microwave antenna; equipment cabinets; two GPS antennae attached to the equipment cabinets; and a standby diesel generator with a 132-gallon fuel tank, within a 495-square-foot leased area at 440 Pigeon Point Road. The Pigeon Point Road parcel, approximately 1 mile east of Hwy 1, also houses a single-family residence, commercial stable facilities, an existing AT&T cellular facility, and a sheriff's repeater. The facility is not visible from Hwy 1 due to distance and elevation differences.

Existing power poles continue in a northerly direction along Hwy 1 for approximately 2.1 miles and then run northeast along Bean Hollow Road for approximately 1.3 miles to an existing Verizon Wireless macro cell site on the Bay Flower Company property at 1000 Bean Hollow Road. The existing Bean Hollow Road cellular facility presently consists of a 45-foot-tall monopole with three panel antennae, and is permitted through San Mateo County for up to six panel antennae. The cellular facility is not visible from Bean Hollow Road or Hwy 1.

Existing Light and Glare

No street or traffic lights are present along the portion of Hwy 1 in the study area. The headlights of vehicles traveling along the roadway create an existing source of light directly associated with the roadway. A few adjacent sources of light are associated with rural residential uses scattered along Hwy 1.

Visual Sensitivity

The primary viewers of the proposed project include travelers on Hwy 1, day-use and overnight visitors to the area, and patrons of the two restaurants near the intersection of Hwy 1 and Gazos Creek Road. More specifically, these viewers include patrons of Gazos Grill and Highway 1 Brewing Company Restaurant, and recreationists using the Año Nuevo State Park, KOA campground, lodge, lighthouse and hostel, beach access areas, and ranches/farms that are open to the public.

Roadway users' views differ based on their location on the roadway, the presence or absence of features that obscure views, and the elevation of that portion of roadway. Roadway speeds differ based on the traveler's familiarity with the route and roadway conditions such as the presence or absence of rain or fog. Single views of the coastal bluffs and ocean typically are of short duration, except on straighter stretches where views last longer. Viewers who frequently travel these routes generally possess moderate visual sensitivity to their surroundings. The passing landscape becomes familiar to these viewers, and their attention typically is not focused on the passing views but on the roadway, roadway signs, and surrounding traffic. Viewers who travel these routes for their scenic quality and/or to reach scenic/recreational destinations may possess a higher regard for the visual experience.

Recreational users view the subject area from the Año Nuevo State Park and ranches/farms. Users of the Año Nuevo State Park and those at coastal access areas are likely to seek out natural areas and scenic views as a resource; common activities include walking/hiking on trails, birding, wildlife observation, and enjoyment of scenic views. Recreational uses on farms/ranches consist of those participating in farm-related activities such as work party days and fruit and vegetable U-picks. Recreationists that are staying at the lodge, camping, or using the hostel stay for longer than day-use recreationists and are there to enjoy and recreate within the natural areas and take in the scenic views. Views of the proposed project differ based on users' location within the landscape, but recreational viewers would be more focused on the natural environment than on the existing utility infrastructure. Viewer sensitivity is high among recreationists because they are more likely to regard the natural and built surroundings as a holistic visual experience.

5.1.3 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measures (APMs) into the proposed project.

APM-AES-1 Keep construction and staging areas orderly, free of trash and debris, and restore areas disturbed by project construction along the proposed route to their pre-project condition.

APM-AES-2 Identify and comply with local regulations and requirements concerning architectural design; design project facilities to be unobtrusive and to not conflict with the character of the surrounding setting; restore conduit installation sites to pre-construction conditions; and prior to construction, consult with the local agencies associated with each project area regarding the appropriate architectural design practices that will be implemented before, during, and after construction.

APM-AES-3 As part of its standard construction operating procedure, ensure that construction lights will be directed away from the visual field of motorists and pedestrians along any streets or right-of-ways**.**

5.1.4 Environmental Impacts and Mitigation

a) Would the project have a substantial adverse effect on a scenic vista? Less than Significant.

Construction

Construction of the proposed project would involve vehicles, crews, and equipment that for the most part, would be similar in nature to the maintenance and/or repair activities that are already carried out periodically by PG&E and AT&T on their own lines under existing conditions. Aerial installation activities would be brief at any one pole, typically around a day, but possibly longer in challenging terrain, where vegetation impedes access or impinges on the existing utility lines, or where the pole requires reinforcement with anchors or in one of the approximately 14 replacement locations. Work would move to a new location once work in any one area was completed. Aerial installations would require a small crew, a bucket truck, personal vehicles, and power tools, and would have the visual appearance that is characteristic of utility maintenance activities. Underground installation activities would be more prolonged and would involve additional equipment such as excavators and a bore machine. Construction of all 14.2 miles of the proposed

project would take approximately 8 weeks. Installation of the underground conduit and cable would require approximately 2–5 weeks, depending on construction crew size.

Construction activities adjacent to Hwy 1 and local roads (such as Pigeon Point Road and Bean Hollow Road), including underground work, would be visible to motorists briefly as they pass the construction site. The presence of utility workers and vehicles in the shoulder of the road, if noticed by motorists, would not substantially affect the scenic experience because the motorists would only experience a fleeting glimpse over the course of their travel route, and because such activity is characteristic of a roadway and utility ROW. The construction activities would also be visible from some recreational destinations including Año Nuevo State Park and Pigeon Point Light Station State Historic Park. These users would have a higher sensitivity to the visual appearance of construction activities, because their views of the construction activity would be stationary and more prolonged, and because the activity could slightly detract from their scenic viewing experience. The construction activity would only be visible to park visitors from certain access roads to the parks, as well as from the portions of the parking lots. Construction activities would not be visible from public viewpoints identified for the parks due to distance and because the lookouts offer scenic views in the opposite direction.

Although no formally identified scenic vistas would be affected by proposed project construction, work crews and construction vehicles and materials could be briefly visible from informal vistas available from Hwy 1 and park access roads. Integration of APM-AES-1 into the proposed project would ensure that construction sites are kept clean and orderly, and would be restored to pre-project conditions as soon as possible or practicable. Furthermore, no construction activities are proposed during periods of peak visitor use, such as weekends and holidays, in accordance to with typical industry work hours and the San Mateo Ordinance Code, Chapter 24.5, Wireless Telecommunication Facilities, Section 6512.2, Performance Standards for New Wireless Telecommunication Facilities that are not Co-location Facilities.

Although viewer sensitivity would be high, particularly near recreational destinations such as Pigeon Point Light Station and Año Nuevo State Park, the adverse effect on scenic vistas would not be substantial because the activities would be temporary; there would be an abundance of scenic views in other directions; the construction activity would not be out of character for a road and utility ROW; and APM-AES-1 would be implemented as part of the proposed project. For these reasons, construction of the proposed project would have a less-than-significant effect on scenic vistas.

Significance: Less than Significant.

Operation and Maintenance

The proposed aboveground facilities would be located within an existing utility corridor in which aboveground utilities are already present within available scenic vista views. Where there are no existing utility poles along the proposed project alignment, the fiber-optic line would be installed underground and thus would not be visible aside from handholes placed at regular intervals. These handholes would be flush with the ground and would not be noticed by a casual observer. Therefore, the underground components of the proposed project would preserve any scenic vistas available from the 1.4-mile portion of Hwy 1 without existing aboveground utility infrastructure. Underground portions of the proposed project are not discussed further because they would not be visible.

The visible components of the proposed project would include the new pole-top extenders, equipment cabinets affixed to the node poles, the fiber optic cable, and the new anchors. These components would only affect a scenic vista where they are located between the affected viewer and the scenic view direction. The scenic vistas in the study area include locations where broad seaward views are available for any longer than a brief glimpse. Therefore, this analysis focuses on the components of the proposed project that are located westward of Hwy 1, where viewer attention would be typically focused, and where recreational facilities and destinations attract viewers with high sensitivity to the visual surroundings. The only portions of the proposed project alignment located west of Hwy 1 are in the vicinity of the Año Nuevo State Park, and the Pigeon Point Light Station. As discussed above under the analysis of construction-related impacts, no formally identified scenic vistas would be affected by the proposed project, but the following discussion addressed informal vistas available from Hwy 1 and local roads.

The location of key observation points (KOPs) is shown in Figure 5.1-2. These locations were chosen based on the visibility of proposed pole-top extenders and antennae from Hwy 1. One of the two antennae proposed on the coastal side of Hwy 1 would be visible from Hwy 1, and is simulated in Figures 4.1-5 and 4.1-6. The other antenna on the coastal side of Hwy 1 would not be visible from Hwy 1 due intervening topography and screening by vegetation; however, it would be visible in the foreground for motorists' northerly views as they approach the Año Nuevo State Park entrance kiosk on Año Nuevo State Park Road. This view is of pine trees only and would not be considered a scenic vista; however, this view is discussed in the context of the visual character and quality of the area under criterion c) below.

Other components of the proposed project, including the fiber-optic line and anchors, may be visible within informal scenic vistas. The portion of the proposed project

alignment passing through Año Nuevo State Park is located along New Years Creek Road, and is on the landward side of the park access road, within a heavily vegetated area that does not offer scenic vistas. The portions of Año Nuevo State Park that offer scenic vistas, such as the established trails leading along the coastline and on out to the coastal dunes, as well as the two scenic lookouts identified in the park brochure, are located at least 0.50 mile west of the proposed project alignment. The viewshed for visitors to Año Nuevo State Park would not be affected by the proposed project.

However, the proposed project components (the fiber-optic line, one replacement pole, and several anchors) within Pigeon Point Light Station State Historic Park would be located within seaward views from the access road to the park, because the fiber-optic cable would be affixed to utility poles that currently serve the visitor center and hostel with electricity (see Photos 2 and 4 in Figure 5.1-1). In addition, the fiber-optic line would be installed on existing poles that are very close to the buff edge, which would place the fiber within views of the ocean and coastal environment from the access road and parking lot. The lighthouse and its established viewpoints, however, are located west of the proposed project and offer scenic views in the westerly to southerly directions. Thus, scenic views from these locations would not be affected by the proposed project.

Viewers on Pigeon Point Road accessing the Pigeon Point Light Station and within the parking lot would have an available view of the new fiber-optic line and additional anchors, but the visual change that would be observed would be incremental and minor. One additional cable would be affixed to the existing poles about one-third of the way down the pole from the existing electrical lines, and some of the anchors are proposed on the poles in proximity to the parking lot. The fiber optic line cable would be similar in appearance as the AT&T line shown in Photo 3 of Figure 5.1-1. Because the fiber-optic cable and the anchors are thin strands, the additional features would not result in blockage or hindrance of views, and would be consistent with the line, texture, and form of the electrical conduits that already exist on the site.

Given that park visitors would only experience views of the fiber-optic cable and associated anchors briefly as they access the Pigeon Point Light Station State Park, and given the minor incremental nature of the visual change, the impact on informal scenic vistas would be less than significant. There would be no impact to established viewpoints within Pigeon Point Light Station or Año Nuevo State Park.

Significance: Less than Significant.

b) Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? Less than Significant.

Construction of the proposed project would be limited to the existing roadway and utility ROWs and would have less than significant impacts on scenic resources for the same reasons described under criterion a).

Some tree trimming would be required during construction as well as periodically during operation and maintenance to provide the radial clearance around the fiber optic cables as stipulated in CPUC General Order 95. Tree trimming would be limited to areas where the proposed project alignment intersects thick stands of trees and would be limited to specific branches where required, leaving the trees intact. The existing utility lines are likewise subject to CPUC General Order 95, which means that trees are periodically trimmed under existing conditions as well. Therefore, operation and maintenance of the proposed project would have no impact on trees within a state scenic highway beyond what already occurs under existing conditions.

In the context of Hwy 1—where the most scenic resources are the unencumbered views of open agriculture, pasture, and the rocky coastal environment—trees immediately adjacent to the highway tend to obstruct rather than enhance these views. Periodic trimming of trees, where needed to provide radial clearance around utility lines, is therefore not an activity that would substantially damage scenic resources within a state scenic highway. All vegetation outside of the radial clearance zone would be left intact, which would preserve the appearance of any stands of trees that the proposed alignment crosses or abuts. Therefore, the construction-related impact of the proposed project on scenic resources (i.e., trees) within the Hwy 1 corridor would be less than significant. No rock outcroppings, historic buildings, or other scenic resource would otherwise be directly or indirectly damaged as a result of construction, operation, and maintenance of the proposed project.

Significance: Less than Significant.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings? Less than Significant.

Construction

Construction of the proposed project would be limited to the existing roadway and utility ROWs and would have less-than-significant impacts on scenic resources for the same

reasons described under criterion a), mainly because the activity would be temporary, and would only be visible briefly as a motorist passes the active work area.

Operation and Maintenance

Five of the existing poles would be extended by up to 9 feet in order to add antennae and ancillary equipment housed in a small cabinet affixed to the pole (these poles are referred to as "node" poles). These visual features are presented in the photo simulations in Figures 5.1-3 through 5.1-8, which illustrate the equipment configurations on three of the node poles along Hwy 1. Figures 5.1-3 and 5.1-4 show both the existing view and the simulated view of southern-most node pole from the southbound and northbound directions, respectively (KOP 1). Figures 5.1-5 and 5.1-6 show both the existing view and the simulated view of a node pole located south of Hwy 1 near New Years Creek Road, within Año Nuevo State Park from two vantage points (KOP 2). One vantage point is looking west from Hwy 1 (Figure 5.1-5), and one is looking north from New Years Creek Road, a short distance from Hwy 1 (Figure 5.1-6). Figures 5.1-7 and 5.1-8 show both the existing view and the simulated view of northern-most node pole from the southbound and northbound directions, respectively (KOP 3). The node pole located within Año Nuevo State Park near the entrance kiosk would be hidden from view for motorists on Hwy 1. The second northerly most node pole would be nearly identical in terms of appearance, view direction, and surrounding visual character as the node pole shown in KOP 3 (Figures 5.1-7 and 5.1-8).

These changes are not considered significant visual changes because the cable, antennae, and guy wires represent minor visual changes that are small, unobtrusive, and in keeping with the existing visual character of equipment located on the existing utility line. The extension of the poles would add to the height of the existing structure by about 20%, but it would maintain its characteristic shape, texture, and color; and would not result in substantial view blockage or impairment. The change would only occur on five electric poles along the existing alignment. The pole simulated in Figures 5.1-3 and 5.1-4 would protrude slightly, but not substantially above the tree line, and only from specific vantage points to which motorists would be exposed only briefly. In KOP 1, the equipment box and fiber-optic cable would be screened from view by existing vegetation. The pole top extender and antenna is more clearly visible from KOP 2 (Figures 5.1-5 and 5.1-6), but would only be visible briefly and would likewise maintain the general shape and appearance of the structure, even if it increases its height. The visual change would be incremental in nature and would not significantly alter the appearance as seen by a passing motorist.

The proposed fiber-optic cable is most clearly shown in the simulations from KOP 3 (Figures 5.1-7 and 5.1-8). Because the proposed fiber-optic cable and the anchors would be narrow strands, the additional features would not result in blockage or hindrance of views, and would be consistent with the texture and form of the electrical conduits that already exist along the PG&E and AT&T utility alignments. Due to their narrow shape, the fiber-optic line and guy wires—when seen any further away than the immediate foreground—quickly recede from view and would tend to become indistinguishable from other visual features. The degree of visual change resulting from the addition of the fiber-optic line would be more pronounced where there is not already an existing fiber-optic line, but would still be minor and incremental due to the existing electrical conductors already present along the entire length of the aboveground alignment.

The magnitude of the visual change would be small and incremental in nature, and motorists would only be exposed to the visual change resulting from the three pole-top extenders and antennae momentarily (a matter of seconds) over the course of the entire route. Passing motorists, which would be the primary affected viewer group, are only passive observers of foreground utility infrastructure, and thus would be unlikely to notice or negatively perceive the visual changes that would result from the proposed project. In addition, per APM-AES-2, the color of materials and design of structures would be coordinated with the County to comply with local regulations and requirements concerning architectural design.

The general visual character of the study area would be maintained; the addition of proposed project components and features to the road and utility ROW does not change the existing uses present along the highway or add any bulky structures; and visual change would be minor, incremental and in keeping with local regulations and requirements concerning architectural design. For these reasons, impact would be less than significant.

Significance: Less than Significant.

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

Construction

The only potential source of light or glare from aerial or underground segments would be temporary and related to headlights and construction lighting during the installation/construction process itself. Since work is scheduled to occur only on

weekdays between the hours of 7:00 a.m. and 6:00 p.m., the time during which any construction-related lighting would be used would be very short in duration. Should unexpected circumstances require nighttime construction, APM-AES-3 stipulates that construction lights be directed away from the visual field of motorists and pedestrians along any streets or right-of-ways**.** Construction is not expected to last more than 2 weeks at any one location, and considerably shorter for most locations. For these reasons, and with integration of APM-AES-3 into project design, construction of the proposed project would have a less-than-significant impact with respect to lighting and glare.

Operation and Maintenance

There would be no permanent sources of light or glare associated with the operation and maintenance of the proposed project; therefore, there would be no impact.

Significance: Less than Significant.

5.1.5 References Cited

California State Parks. 2011. "Pigeon Point Light Station State Historic Park." California Department of Parks and Recreation. Accessed January 8, 2014. http://www.parks.ca.gov/?page_id=533.

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Caltrans (California Department of Transportation). 2011. "San Mateo County Officially Designated State Scenic Highways" [map].Last updated September 7, 2011. Accessed December 28, 2013. http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm.

County of San Mateo. 1986. "Chapter 4, Visual Quality, Background and Issues: Scenic Corridors Map 4.1M." In *San Mateo County General Plan.* Accessed January 8, 2014. http://www.co.sanmateo.ca.us/planning/genplan/pdf/gp/GP%20Ch_04_Visual_Qual.pdf.

ICF International. 2013. *Crown Castle Network San Mateo County Project, Amended Proponent's Environmental Assessment*. Prepared for Crown Castle NG West Inc. August 2013.

Photo 1: Agriculture on Coastal Terrace, West View from Bean Hollow Road

Photo 2: Eastward View from Pigeon Point Lighthouse Parking Lot

Photo 3: Northwest View from Gazos Grill parking Lot

Photo 4: Northward View from Pigeon Point Lighthouse Parking Lot

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SOURCE: ESRI 2013, ICF 2013

FIGURE 5.1-2
KOP Locations

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SOURCE: ESRI 2013, ICF 2013, NextG Networks and Applied Imagination 2011

FIGURE 5.1-3

KOP 1a: Southeast View of Node (DAV 11)

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SOURCE: ESRI 2013, ICF 2013, NextG Networks and Applied Imagination 2011

FIGURE 5.1-4

KOP 1b: North View of Node (DAV 11)

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SOURCE: ESRI 2013, ICF 2013, NextG Networks and Applied Imagination 2011

FIGURE 5.1-5

KOP 2a: West View of Node (DAV12)

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SOURCE: ESRI 2013, ICF 2013, NextG Networks and Applied Imagination 2011

FIGURE 5.1-6

KOP 2b: North View of Node (DAV12)

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SOURCE: ESRI 2013, ICF 2013, NextG Networks and Applied Imagination 2011

FIGURE 5.1-7

KOP 3a: Southeast View of Node (DAV 15)

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SOURCE: ESRI 2013, ICF 2013, NextG Networks and Applied Imagination 2011

FIGURE 5.1-8

KOP 3b: Northeast View of Node (DAV 15)

CROWN CASTLE SAN MATEO COUNTY PROJECT

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5.2 Agriculture and Forestry Resources

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

5.2.1 Regulatory Setting

Federal

There are no applicable federal regulations or policies related to agriculture and forestry resources for the proposed project.

State

California Department of Conservation's Farmland Mapping and Monitoring Program

The California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used to monitor the conversion of the

state's farmland to and from agricultural use. Every 2 years the maps are updated using data obtained from aerial photographs, public review, and field reconnaissance. The FMMP is an informational service only and does not have regulatory jurisdiction over local land use decisions. For the purpose of this environmental analysis and consistency with the Farmland Policy Act of 1981, the term "Farmland" includes Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, and any conversion of land within these categories is typically considered to be an adverse impact.

Descriptions of the FMMP Farmland categories are provided below.

Prime Farmland

Prime Farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agriculture production at some time during the 4 years prior to the FMMP mapping date.

Farmland of Statewide Importance

Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. In addition, to be considered, lands must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

Unique Farmland

Unique Farmland consists of lands supporting lesser quality soils used for the production of the state's leading agricultural crops. Lands are usually irrigated but may also include non-irrigated orchards or vineyards. Lastly, to be considered, lands must have been cropped at some time during the 4 years prior to the mapping date.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) (California Government Code Sections 51200–51297.4, as amended), enables local governments to enter into rolling 10-year contracts with private landowners to restrict specific parcels of land to agricultural or related open-space use. In return for their commitment, landowners receive property tax assessments based on farming and open space uses rather than other potentially higher tax bases (California Department of Conservation 2013). In August 1998, the Williamson Act was amended to establish Farmland Security Zones that grant greater tax reductions for

property owners in return for 20-year contract commitments. San Mateo County participates in the Williamson Act and Farmland Security Zone programs.

Forest Land and Timberland

Public Resources Code Section 12220(g) defines "Forest land" as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." In turn, "timberland" is defined by Public Resources Code Section 4526 as "land, other than land owned by the federal government, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees." Finally, "Timberland production zone," or "TPZ," is defined by California Code Section 51104(g) as "an area which has been zoned pursuant to [Government Code] Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties, 'timberland preserve zone' means 'timberland production zone."

Local

San Mateo County Ordinance Code

The entirety of the proposed project alignment would be located within a combined zoning district, Planned Agricultural District (PAD)/Coastal Development District (CD). The purpose of the PAD zoning district is to preserve and foster existing and potential agricultural operations in the County and to minimize conflicts between agricultural and non-agricultural land uses (County of San Mateo 2012). The CD district is an overlay applied to lands coterminous with the portion of the Coastal Zone within unincorporated San Mateo County.

5.2.2 Environmental Setting

Farmlands are located in the vicinity of the proposed project. Along the southern extent of the proposed alignment, agricultural lands on Coastways Ranch are designated as Unique Farmland, and the Cascade Ranch Historic Farm contains Unique Farmland, Farmland of Statewide of Important, and Prime Farmland. Prime Farmland also occurs east of Highway 1 (Hwy 1) near Cascade Ranch Historic Farm. Parcels of agricultural lands located south of Pigeon Point Road and west of Hwy 1 are designated as Unique Farmland and Prime Farmland (California Department of Conservation 2010a). Further to the north, tilled coastal lands abutting Pigeon Point Road to the south, west, and north and Hwy 1 to the east support Unique Farmland and

Prime Farmland, and Prime Farmland is also located west of Bean Hollow Road along the northernmost extent of the proposed alignment (DOC 2010a).

Table 5.2-1 shows the acres of Farmland in San Mateo County in 2008 and 2010, as well as the amount of farmland conversion occurring during that time frame.

Table 5.2-1
Farmland Conversion in San Mateo County From 2008–2010

Land Use Category	Total Acres Inventoried		2008 – 2010 Acreage Changes		
	2008	*2010*	*Acres Lost*	*Acres Gained*	*Net Acreage Change*
San Mateo County					
Prime Farmland	2,221	2,180	120	79	-41
Farmland of Statewide Importance	142	146	0	4	4
Unique Farmland	2,182	2,271	243	397	89

Source: California Department of Conservation 2010b.

Forest Land and Timberland

The proposed project does not traverse lands zoned for forest land, timberland, or timberland zoned Timberland Production.

5.2.3 Applicant Proposed Measures

There are no applicant proposed measures associated with agriculture and forestry resources.

5.2.4 Environmental Impacts and Mitigation

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? Less than Significant.

The proposed project would result in temporary disturbance to Farmland in work areas associated with the installation of overhead fiber-optic cable at existing pole locations and replacement of two poles. All temporarily disturbed areas would be returned to their original or better condition. There would be no net permanent impact to Farmland from the replacement of two poles within Prime Farmland because the poles to be replaced would be the same size as the existing poles and the area of the removed poles would be restored. No Unique Farmland of Farmland of Statewide Importance would be impacted by the proposed project. Therefore, since all temporarily impacted Farmland would be restored following construction activities and no net permanent impacts would occur,

impacts to Farmland would be less than significant. It should be noted that while proposed project components would be located within lands designated as Farmland, the proposed project alignment is within an existing utility ROW.

Significance: Less than Significant.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? No Impact.

The proposed project would not conflict with the purpose of the PAD/CD zoning district which is to preserve and foster existing and potential agricultural operations in the County and to minimize conflicts between agricultural and non-agricultural land uses because the proposed project would be located on existing poles within an existing right-of-way (ROW) currently used for overhead utilities. There is no change to the existing land use.

Regarding Williamson Act lands, the proposed project could result in temporary disturbance in work areas associated with the installation of overhead fiber-optic cable at existing pole locations on the west side of Hwy 1 near Cascade Ranch Historic Farm/Año Nuevo State Park. No permanent impacts would occur. Moreover, California Code Section 51238 states that communication facilities are a compatible uses with Williamson Act lands.

Therefore, since the proposed project (1) is consistent and would not conflict with existing zoning for agricultural use and (2) would not remove land from Williamson Act contract status, no impacts would occur.

Significance: No Impact.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? No Impact.

The proposed project alignment does not traverse lands zoned for forest land, timberland or timberland zoned Timberland Production therefore, no impact would occur.

Significance: No Impact.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use? No Impact.

As discussed earlier, the proposed project alignment does not traverse lands zoned for forest land; therefore, no loss or conversion to non-forest use could occur.

Significance: No Impact.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? No Impact.

The proposed project would not involve additional changes in the existing environment, which, due to their location or nature, could temporarily or permanently result in conversion of Farmland to non-agricultural use or of forest land to a non-forest use. The addition of a fiber-optic line and ancillary equipment on existing poles is generally a compatible use with agriculture and forestry, and the proposed project does not include any features that would indirectly result in the conversion of such lands. As discussed earlier, regarding Farmland, the proposed project alignment would be located within an existing right-of-way (ROW) where no active cultivation is occurring. Therefore no impact would occur.

Significance: No Impact.

5.2.5 References Cited

California Department of Conservation. 2010a. San Mateo County Important Farmland 2010. Farmland Mapping and Monitoring Program.

California Department of Conservation., 2010b. "San Mateo County 2008-2010 Land Use Conversion Table ." Division of Land Resource Protection. Accessed December 30, 2013. http://redirect.conservation.ca.gov/dlrp/fmmp/county_info_results.asp. California Department of Conservation. 2013. "The Land Conservation (Williamson) Act." Accessed December 30, 2013. ttp://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx.

County of San Mateo. 2012. *Zoning Regulations*. Planning and Building Department. December 2012.

5.3 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

5.3.1 Regulatory Setting

Federal

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The Environmental Protection Agency (EPA) is responsible for implementing most aspects of the Clean Air Act, including the setting of National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions. NAAQS are established for "criteria pollutants" under the Clean Air Act, which are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than or equal to 10 microns (PM_{10}), particulate matter less than or equal to 2.5 microns ($PM_{2.5}$), and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to

3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan that demonstrates how those areas will attain the standards within mandated time frames.

State

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to the California Air Resources Board (CARB), with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which is part of the California Environmental Protection Agency (CalEPA), is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standard (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 5.3-1, Ambient Air Quality Standards.

Table 5.3-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
		Concentration[3]	*Primary*[3,4]	*Secondary*[3,5]
O_3	1-hour	0.09 ppm (180 μg/m³)	—	Same as Primary Standard
	8-hour	0.070 ppm (137 μg/m³)	0.075 ppm (147 μg/m³)	
CO	1-hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	—
	8-hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
NO_2[6]	1-hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	
SO_2[7]	1-hour	0.25 ppm (655 μg/m³)	0.75 ppm (196 μg/m³)	—
	3-hour	—	—	0.5 ppm (1300 μg/m³)
	24-hour	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)[7]	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)[7]	—

Table 5.3-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
		Concentration[3]	*Primary*[3,4]	*Secondary*[3,5]
PM_{10}[8]	24-hour	50 µg/m³	150 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m³	—	
$PM_{2.5}$[8]	24-hour	—	35 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[9,10]	30-day Average	1.5 µg/m³	—	—
	Calendar Quarter	—	1.5 µg/m³ (for certain areas)[10]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m³	
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[9]	24-hour	0.01 ppm (26 µg/m³)	—	—
Sulfates	24-hour	25 µg/m3	—	—
Visibility reducing particles[11]	8-hour (10:00 a.m. to 6:00 p.m. PST)	See footnote 11	—	—

ppm= parts per million by volume; µg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter

Source: CARB 2013a

1 California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For NO_2 and SO_2, the standard is attained when the 3-year average of the 98th and 99th percentile, respectively, of the daily maximum 1-hour average at each monitor within an area does not exceed the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

5 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

6 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

7 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

8 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[9] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[10] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[11] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively

Local

Bay Area Air Quality Management District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB) and is subject to Bay Area Air Quality Management District (BAAQMD) guidelines and regulations. In the SFBAAB, O_3, PM_{10}, and $PM_{2.5}$ are the pollutants of main concern since exceedances of state and federal ambient air quality standards for those pollutants are experienced during many years. For this reason, the regulatory programs in the BAAQMD have been focused on reducing emissions of O_3 and particulate matter precursors and directly emitted PM_{10} and $PM_{2.5}$.

The BAAQMD, Association of Bay Area Governments, and Metropolitan Transportation Commission are responsible for developing and implementing air quality plans and future strategies for attainment and maintenance of the ambient air quality standards in the SFBAAB. The BAAQMD is the primary agency responsible for assuring that the NAAQS and CAAQS are attained and maintained in the Bay Area. BAAQMD's jurisdiction includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, and the southwestern portions of Solano and Sonoma counties. The BAAQMD's responsibilities in improving air quality in the region include preparing plans for attaining and maintaining air quality standards, adopting and enforcing rules and regulations, issuing permits for stationary sources of air pollutants, inspecting stationary sources and responding to citizen complaints, monitoring air quality and meteorological conditions, awarding grants to reduce mobile emissions, implementing public outreach campaigns, and assisting local governments in addressing climate change (BAAQMD 2012).

The BAAQMD has also adopted the Bay Area 2010 Clean Air Plan (CAP), which serves as an update to the most recent O_3 plan, the Bay Area 2005 Ozone Strategy, to comply with state air quality planning requirements as codified in the California Health and Safety Code. The CAP provides a comprehensive multi-pollutant plan to improve Bay Area air quality and protect

public health. The CAP defines a control strategy that the BAAQMD and its partners will implement to (1) reduce emissions and decrease ambient concentrations of harmful pollutants, (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk with an emphasis on protecting the communities most heavily impacted by air pollution, and (3) reduce greenhouse gas emissions to protect the climate (BAAQMD 2010).

The BAAQMD has adopted a Particulate Matter Implementation Schedule per the requirements of Senate Bill 656. In 2003, the California Legislature enacted Senate Bill 656, codified as Health and Safety Code Section 39614. This legislation seeks to reduce public exposure to PM_{10} and $PM_{2.5}$ and to make progress toward attainment of state and federal PM_{10} and $PM_{2.5}$ standards. Senate Bill 656 required CARB, in consultation with local air quality districts, to develop and adopt a list of the most readily available, feasible, and cost-effective control measures that could be used by CARB and air districts to reduce particulate matter. The bill required CARB and the air districts to adopt implementation schedules for appropriate CARB and air district measures (BAAQMD 2010).

In addition to criteria pollutants, the BAAQMD has regulated toxic air contaminants (TACs) since the 1980s. Under BAAQMD Regulation 2-1 (General Permit Requirements), Regulation 2-2 (New Source Review), and Regulation 2-5 (New Source Review), most sources that have the potential to emit TACs are required to obtain permits from BAAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures. The BAAQMD limits emissions and public exposure to TACs through a number of programs. The BAAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

As stated above, the BAAQMD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SFBAAB.

Bay Area Air Quality Management District Thresholds

The BAAQMD updated its *California Environmental Quality Act Air Quality Guidelines* in May 2012 (BAAQMD 2012); however, the thresholds that had been challenged were removed from this latest version.[1] This document provides guidance for Bay Area project proponents and the public for determining whether, based on substantial evidence, a project may have a significant effect on the environment under California Public Resources Code, Section 21082.2.

[1] The BAAQMD's adoption of revised thresholds of significance was challenged by the California Building Industry Association (*California Building Industry Association v. Bay Area Air Quality Management District* (Alameda County Superior Court, 2012); no. RG10548693). A petition for a writ of mandate was filed on November 29, 2010. On January 9, 2012, the Alameda County Superior Court concluded that the BAAQMD's adoption of the thresholds is a project under CEQA. The BAAQMD appealed the Superior Court's

Quantitative emission thresholds as adopted by the BAAQMD in 2010, below which a project would not have a significant impact on ambient air quality, are shown in Table 5.3-2, BAAQMD Air Quality Significance Thresholds – Project Level. Proposed project-related air quality impacts estimated in this environmental analysis would be considered significant if the applicable significance thresholds presented in Table 5.3-2 are exceeded. A project could result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3 (see Table 5.3-1), which is a nonattainment pollutant, if the project's construction, operational, and maintenance emissions would exceed the BAAQMD volatile organic compound (VOC) or NO_x thresholds shown in Table 5.3-2. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see discussion of O_3 and its sources above), and the effects of an individual project's emissions of O_3 precursors (VOC and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods. For California Environmental Quality Act (CEQA) purposes, these thresholds can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality.

Table 5.3-2
BAAQMD Air Quality Significance Thresholds – Project Level

Construction-Related	
Pollutant	*Total Emissions (Pounds per Day)*
Respirable Particulate Matter (PM_{10})	82 (exhaust only)
Fine Particulate Matter ($PM_{2.5}$)	54 (exhaust only)
PM_{10}/$PM_{2.5}$ (fugitive dust)	Best Management Practices
Oxides of Nitrogen (NO_x)	54
Oxides of Sulfur (SO_x)	—
(Local) Carbon Monoxide (CO)	—
Volatile Organic Compounds (VOC)	54

decision. The Court of Appeal of the State of California, First Appellate District, reversed the Superior Court's decision and required the court to vacate its writ of mandate (*California Building Industry Association v. Bay Area Air Quality Management District*, 218 Cal.App.4th 1171 (2013)). Further, the Court of Appeal reviewed several thresholds that had been challenged by the California Building Industry Association and found the basis for these thresholds to be acceptable. The Court of Appeal's decision has been appealed to the California Supreme Court, which granted limited review to the following issue: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project? As of this writing, no further findings or rulings have been made, and the issue is currently pending. Section 15064.7(c) of the CEQA Guidelines provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts." Accordingly, the BAAQMD's thresholds are documented by substantial evidence and appropriate for evaluating the significance of the emissions associated with the proposed project.

Table 5.3-2
BAAQMD Air Quality Significance Thresholds – Project Level

Operational-Related		
	Total Emissions	
Pollutant	*Pounds per Day*	*Tons per Year*
Respirable Particulate Matter (PM_{10})	82	15
Fine Particulate Matter ($PM_{2.5}$)	54	10
PM_{10}/$PM_{2.5}$ (fugitive dust)	—	—
Oxides of Nitrogen (NO_x)	54	10
Sulfur Oxides (SO_x)	—	—
(Local) Carbon Monoxide (CO)	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Lead and Lead Compounds	—	—
Volatile Organic Compounds (VOC)	54	10

Source: BAAQMD 2011.

For nonattainment pollutants, if emissions exceed the thresholds shown in Table 5.3-2, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

5.3.2 Environmental Setting

The proposed project site is located within the SFBAAB and is subject to BAAQMD guidelines and regulations. The SFBAAB is one of 15 air basins that geographically divide the state of California. The SFBAAB is currently classified as nonattainment for state and federal ozone (O_3) standards, nonattainment for state PM_{10} and $PM_{2.5}$ standards, and nonattainment for the federal 24-hour $PM_{2.5}$ standard. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions (BAAQMD 2012).

The SFBAAB lies along the northern coast of California on the San Francisco Bay and comprises the majority of the Bay Area region, covering 5,540 square miles and nine counties, including Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara, and the southwestern portions of Solano County and Sonoma County.

Topography and Climate

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays that distort normal wind flow patterns. A split in the Coast Range results in a western coast gap, Golden Gate, and an eastern coast gap, Carquinez Strait, which allows air to flow in and out of the SFBAAB and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below moves to the surface because the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band resulting in condensation and the presence of fog and stratus clouds along the Northern California coast.

In the winter, the Pacific high-pressure cell weakens and shifts southward resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

On summer afternoons, the temperatures at the coast can be 35º Fahrenheit (ºF) cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10ºF. In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime, the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains account for about 75% of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

Inversions affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). An inversion is a layer of warmer air over a layer of cooler air. The highest air pollutant concentrations in the SFBAAB generally occur during inversions. The frequent occurrence of elevated temperature inversions in summer and fall months acts to cap the mixing depth, limiting the depth of air available for dilution. The typical winter inversions, called radiation inversions, are formed as heat quickly radiates from the Earth's surface after sunset, causing the air in contact with it to cool rapidly. Radiation inversions are strongest on clear, low-wind, cold winter nights, allowing the build-up of such pollutants as carbon monoxide (CO) and particulate matter.

The frequency of hot, sunny days during the summer months in the SFBAAB is another important factor that affects air pollution potential. It is at the higher temperatures that O_3 is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen (NO_x) react to form secondary photochemical pollutants, including O_3. In late fall and winter, solar angles are low, resulting in insufficient ultraviolet light and warming of the atmosphere to drive the photochemical reactions. O_3 concentrations do not reach significant levels in the SFBAAB during these seasons (BAAQMD 2012).

San Francisco Bay Area Air Basin Attainment Designation

An area is designated in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards are set by the EPA and CARB, respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare.

The criteria pollutants of primary concern that are considered in this air quality assessment include O_3, NO_2, CO, SO_2, PM_{10}, and $PM_{2.5}$. Although there are no ambient standards for VOCs or NO_x, they are important as precursors to O_3. In the proposed project area, the SFBAAB is currently designated as a nonattainment area for state and federal O_3 standards, state PM_{10} and $PM_{2.5}$ standards, and the federal 24-hour $PM_{2.5}$ standard.[2]

Table 5.3-3, SFBAAB Attainment Classification, summarizes the SFBAAB's federal and state attainment designations for each of the criteria pollutants.

Table 5.3-3
SFBAAB Attainment Classification

Pollutant	Federal Designation	State Designation
O3 (1-hour)	(no federal standard)*	Nonattainment
O3 (8-hour–1997) (8-hour–2008)	Nonattainment (Marginal)	
CO	Unclassifiable/Attainment	Attainment
PM10	Unclassifiable**	Nonattainment
PM2.5	Nonattainment	Nonattainment
NO2	Unclassifiable/Attainment	Attainment
SO2	Attainment	Attainment
Lead	(no federal standard)	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen sulfide	(no federal standard)	Unclassified**
Visibility	(no federal standard)	Unclassified**

Sources: BAAQMD 2013; CARB 2013b.

* The federal 1-hour standard of 0.12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassified.

[2] On January 9, 2013, EPA issued a final rule to determine that the SFBAAB attains the 24-hour $PM_{2.5}$ NAAQS. This EPA rule suspends key State Implementation Plan requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the SFBAAB will continue to be designated as "nonattainment" for the 24-hour $PM_{2.5}$ NAAQS until such time as the BAAQMD submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation (BAAQMD 2013).

Air Quality Monitoring Data

The BAAQMD operates a network of ambient air monitoring stations throughout the Bay Area, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The BAAQMD monitors air quality conditions at 34 locations throughout the basin. The Redwood City monitoring station in San Mateo County, which is the closest site to the proposed project site, was used for all pollutant concentrations, except PM_{10} and SO_2, and is considered most representative of the proposed project site. The Redwood City monitoring site, which is located in the urbanized South Bay, would tend to have poorer air quality than the proposed project site, which is located in the coastal area of San Mateo County. The Cupertino monitoring station is the nearest location to the proposed project site where PM_{10} and SO_2 and concentrations are monitored.

Ambient concentrations of pollutants from 2010 through 2012 are presented in Table 5.3-4, Ambient Air Quality Data. The number of days exceeding the ambient air quality standards is shown in Table 5.3-5, Frequency of Air Quality Standard Violations. The state 8-hour and 1-hour O_3 standards and the federal 8-hour O_3 standard were exceeded in 2010. The national 24-hour $PM_{2.5}$ standard was exceeded in 2010 and 2011. Air quality within the proposed project region was in compliance with both CAAQS and NAAQS for NO_2, CO, PM_{10}, and SO_2 during this monitoring period.

Table 5.3-4
Ambient Air Quality Data

Pollutant	Averaging Time	2010	2011	2012	Most Stringent Ambient Air Quality Standard	Monitoring Station
O_3	8-hour	0.077	0.062	0.055	0.070	Redwood City
	1-hour	0.113	0.076	0.063	0.090	
PM_{10}	Annual	10.3	14.2	13.5	20 µg/m^3	Cupertino – Voss Ave.
	24-hour	27.4	28.9	41.5	50 µg/m^3	
$PM_{2.5}$	Annual	8.3 µg/m^3	8.7 µg/m^3	8.5 µg/m^3	12 µg/m^3	Redwood City
	24-hour	36.5 µg/m^3	39.7 µg/m^3	33.3 µg/m^3	35 µg/m^3	
NO_2	Annual	0.012	0.012	0.011	0.030	Redwood City
	1-hour	0.058	0.056	0.060	0.180	
CO	8-hour	1.72	1.67	1.81	9.0	Redwood City
	1-hour*	3.3	3.8	4.0	20	
SO_2	Annual	N/A	0.000	N/A	0.030	Cupertino – Voss Ave.
	24-hour*	0.003	0.007	0.003	0.040	

µg/m3 = micrograms per cubic meter NA = data not available
Sources: CARB 2013c; EPA 2013.
Data represent maximum values.
Notes: A new 1-hour NAAQS for NO2 became effective in April 2010. Data reflect compliance with the 1-hour CAAQS.
* Data were taken from EPA 2013.

Table 5.3-5
Frequency of Air Quality Standard Violations

Monitoring Site	Year	Number of Days Exceeding Standard				
		State – 1-Hour O_3	*State – 8-Hour O_3*	*National – 8-Hour O_3*	*National and State – 24-hour PM_{10}**	*National – 24-hour $PM_{2.5}$*
Redwood City	2010	2	1	1	—	1.0 (1)
	2011	0	0	0	—	1.0 (1)
	2012	0	0	0	—	0
Cupertino – Voss Ave.	2010	—	—	—	N/A	—
	2011	—	—	—	0	—
	2012	—	—	—	0	—

Source: CARB 2013c.

* Measurements of PM10 are usually collected every 6 days, respectively. "Number of days exceeding the standards" is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

5.3.3 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measures (APMs) into the design and implementation of the proposed project.

APM AQ-1 Implement BAAQMD Basic Construction Measures to Reduce Dust Emissions

Crown Castle will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce dust emissions.

- All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph).
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The air district's phone number will also be visible to ensure compliance with applicable regulations.

APM AQ-2 Implement BAAQMD Basic Construction Measures to Reduce Exhaust Emissions

Crown Castle will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce exhaust emissions.

- Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage will be provided for construction workers at all access points.

- All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.

5.3.4 Environmental Impacts and Mitigation

a) Would the project conflict with or obstruct implementation of the applicable air quality plan? No Impact.

Regional planning efforts to improve air quality include a variety of strategies to reduce emissions from motor vehicles and minimize emissions from stationary sources. As discussed above, the BAAQMD is the agency principally responsible for comprehensive air pollution control in San Mateo County. The BAAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects sources, and enforces such measures through educational programs or fines, when necessary.

The most recent Bay Area ozone plan prepared in response to federal air quality planning requirements is the 2001 Ozone Attainment Plan (BAAQMD 2001). The most recent state ozone plan is the Bay Area 2010 Clean Air Plan, adopted by the Board of Directors in September 2010 (BAAQMD 2010). Projects are considered consistent with, and would not conflict with or obstruct implementation of, the local air quality management plan if the growth in socioeconomic factors (e.g., population, employment, etc.) is consistent with the underlying regional plans used to develop the local plans. Demographic growth forecasts for various socioeconomic categories, developed by the Metropolitan Transportation Commission, the Association of Bay Area Governments, and local and regional agencies were used to estimate future emissions in the 2001 Ozone Attainment Plan and 2010 Clean Air Plan. The proposed project would be consistent with existing land uses on-site and would involve installation of a new fiber-optic cable line along the existing project alignment. As discussed in Section 3.13, Population and Housing, implementation of the proposed project would not directly or indirectly induce population growth nor would it generate new maintenance-related vehicular trips not currently anticipated in these plans. As such, the proposed project would not result in a conflict with local applicable air quality plans; therefore, no impact would occur.

Significance: No Impact.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? Less than Significant.

Construction

Construction emissions would be short-term and temporary, and would be generated by heavy equipment, construction-related trips by workers, material-hauling trucks, and associated fugitive dust generation from clearing and grading activities. The principal pollutants of concern would be PM_{10} and ozone precursor emissions (reactive organic gases and NO_x). Table 5.3-6, Proposed Project Construction Emissions, provides the estimated proposed project emissions during construction.

Table 5.3-6
Proposed Project Construction Emissions

Emissions Source	Pollutant (pounds/day)					
	VOC	*NO_x*	*CO*	*SO_x*	*PM_{10} (Exhaust)*	*$PM_{2.5}$ (Exhaust)*
Pole Replacement	1.56	12.17	—	—	0.51	0.51
Cable Installation	1.12	9.11	—	—	0.30	0.30
Directional Boring	1.44	9.91	—	—	0.49	0.49
Cable Installation - Conduit	2.63	13.92	—	—	0.71	0.71
Buried Vault and Marker	0.99	7.25	—	—	0.39	0.39
Maximum Daily Emissions*	4.12	31.19	—	—	1.30	1.30
BAAQMD Thresholds	*54*	*54*	—	—	*82*	*54*
Exceed Threshold?	No	No	—	—	No	No

Source: ICF 2013.
VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns
* Emissions from cable installation (aerial), pole replacement, and directional boring.

As shown in Table 5.3-6, total daily construction emissions would not exceed identified significance thresholds or result in a violation air quality standards; therefore, impacts would be less than significant.

The Applicant has identified additional dust control best management practices (BMPs) recommended by the BAAQMD in APM AQ-1, and BAAQMD-recommended control measures for equipment in APM AQ-2. Integration of these APMs into project design would further reduce this already less than significant impact.

Operation and Maintenance

The proposed project would not generate any operational air emissions.

Maintenance and repair activities associated with the proposed project would be minimal, and would consist of periodic inspection of project facilities by patrol in a single pickup truck. Occasional reattachment of loose or detached cables may be required, and these activities would be similar to cable/pole installation activities as described in Section 4.7 of the Project Description. However, the duration, intensity, and frequency of said activities would be minimal. Therefore, emissions resulting from maintenance activities would not exceed the significance thresholds identified above; therefore, they would not contribute substantially to an existing or projected air quality violation and are considered to be less than significant.

Significance: Less than Significant.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? Less than Significant.

The proposed project's cumulative impacts are based on an analysis of the consistency of the proposed project with the local general plan and the applicable air quality plan. As discussed previously under impact discussion question (a), the proposed project would not conflict with or obstruct the implementation of any federal, state, or local air quality attainment plans. Furthermore, the construction of the proposed project would not result in emissions that exceed the BAAQMD significance thresholds as shown in Table 5.3-6. As a result, the proposed project would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. Therefore, impacts would be less than significant.

Operations of the proposed project would not result in any emissions; therefore, no impact would occur.

Maintenance and repair activities associated with the proposed project would be minimal, and would consist of periodic inspection of project facilities by patrol in a single pickup truck. Occasional reattachment of loose or detached cables may be required, and these activities would be similar to cable/pole installation activities as described in Section 4.7 of the Project Description. However, the duration, intensity,

and frequency of said activities would be minimal. Therefore, maintenance-related emissions would be minimal, and impacts would be less than significant.

Significance: Less than Significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations? Less than Significant.

Sensitive receptors include residential areas, schools, playgrounds, health care facilities, day care facilities, and athletic facilities. The nearest sensitive receptors to the proposed project include rural residences within approximately 1,000 feet of the proposed project alignment. Construction activities would involve limited construction equipment in any one particular area and would only occur for approximately 2 months total.

CO Hotspots

Based on the current level of traffic on nearby roadways and the short-term duration of construction activities associated with the proposed project, construction traffic would not create traffic congestion that could create substantial CO "hot spots." Furthermore, as discussed under criterion b), the operation of proposed project is not expected to release any air emissions, and maintenance would be limited to those associated with occasional site visits and inspections. Therefore, impacts would be less than significant.

Air Toxics

Diesel exhaust particulate matter would be emitted from heavy equipment and trucks used in the construction process. Because diesel exhaust particulate matter is considered to be carcinogenic, long-term exposure to diesel exhaust emissions could result in adverse health impacts. Implementation of the proposed project would result in short-term, temporary emissions of diesel exhaust from construction equipment. The emissions would occur during daytime working hours with varying uses over that time of equipment and vehicles dependent on diesel fuel. Because of the short-term nature and low frequency of construction emissions, diesel exhaust particulate matter would not expose sensitive receptors to substantial pollutant concentrations; therefore, impacts to sensitive receptors due to emissions of air toxics would be less than significant. With respect to operations, no impacts associated with diesel exhaust particulate matter would result. Maintenance effects would be limited due to infrequent activities associated with maintenance activities, patrolling inspection, and occasional repairs. Therefore, impacts would be less than significant.

Significance: Less than Significant.

e) Would the project create objectionable odors affecting a substantial number of people? Less than Significant.

Construction activities could generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust). Total construction would take up to 2 months and be distributed over approximately 14 miles. The emissions would be isolated to the immediate vicinity of the construction site and would be limited to a finite period of time that would be relatively short in duration as construction activities move along the alignment. As noted previously, operation of the proposed project would not generate emissions, and no impact would occur. Maintenance of the proposed project would involve limited activities that would be temporary in duration and location; therefore, it would not create objectionable odors. As such, impacts related to creation of odors during construction, operation, and maintenance of the proposed project would be less than significant.

Significance: Less than Significant.

5.3.5 References Cited

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5.4 Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

5.4.1 Regulatory Setting

Federal

Endangered Species Act

The Endangered Species Act (ESA) protects fish and wildlife species that have been listed by the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) as threatened or endangered.

In general, NMFS is responsible for protection of federally-listed marine species and anadromous fishes, while other listed species are under USFWS jurisdiction. Provisions of ESA Section 9, which prohibits take of threatened or endangered species, and Sections 7 and 10, which require permits for take of listed species, may be relevant to the proposed project. "Take" is defined under ESA as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct," including loss of habitat of listed species that would result in "harm").

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the act, "take" is defined as the action of or attempt to "pursue, hunt, shoot, capture, collect, or kill." This act applies to all persons and agencies in the United States, including federal agencies.

State

California Endangered Species Act

The state implemented California Endangered Species Act (CESA) in 1984. The act prohibits the take of state-listed endangered and threatened species; however, habitat destruction is not included in the state's definition of "take." Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species. Section 2090 requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. CDFW administers the act and may authorize take through Section 2081 agreements (except for species designated as fully protected). Regarding rare plant species, CESA defers to the California Native Plant Protection Act (CNPPA) of 1977, which prohibits importing, taking, and selling rare and endangered plants. State-listed plants are protected in cases where state agencies are involved in projects under CEQA. In these cases, plants listed as rare under the CNPPA are not protected under CESA but can be addressed under CEQA.

California Fish and Game Code

Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists fully protected amphibians and reptiles. Section 3515 lists fully protected fish species. Fully protected birds are listed in Section 3511, and fully protected mammals are listed in Section 4700. The California Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture,

or kill." Except for take related to scientific research or as included under an approved Natural Community Conservation Plan, all take of fully protected species is prohibited under state law and no permits are available for such take.

Sections 3503 and 3503.5

Section 3503 of the California Fish and Game Code prohibits the destruction of active bird nests or eggs. Section 3503.5 prohibits the killing of raptor species and the destruction of active raptor nests or eggs.

California Regulation of Infectious Plant Diseases

Under, Public Resources Code, Section 4712 through Section 4718 the State Board of Forestry (Board) declared San Mateo County to be within the zone of infestation for both Pitch Pine Canker and Sudden Oak Death (SOD). The board has taken steps to control and eradicate these infestations. In the case of SOD the board acted in conjunction with the Department of Food and Agriculture (CCR 3700) to implement restrictions on the intra-state transport of infected material. Actions include restriction on movement of infected material and guidance, for utility line workers and arborist, to reduce the spread of infection when trimming or removing susceptible trees in Monterey Pine and Live Oak communities (PCTF 2014, SODTF 2010).

Local

San Mateo County General Plan

The following sections include the goals, policies, and objectives of the San Mateo General Plan (County of San Mateo 1986) that are relevant to the activities and actions of the proposed project.

Goals and Objectives

1.1 Conserve, Enhance, Protect, Maintain and Manage Vegetative, Water, Fish and Wildlife Resources

Promote the conservation, enhancement, protection, maintenance and managed use of the County's Vegetative, Water, Fish and Wildlife Resources.

1.2 Protect Sensitive Habitats

Protect sensitive habitats from reduction in size or degradation of the conditions necessary for their maintenance.

Policies

1.20 Importance of Sensitive Habitats

Consider areas designated as sensitive habitats1 as a priority resource requiring protection.

1.24 Protect Vegetative Resources

Ensure that development will: (1) minimize the removal of vegetative resources and/or (2) protect vegetation, which enhances microclimate, stabilizes slopes or reduces surface water runoff, erosion or sedimentation; and/or (3) protect historic and scenic trees.

1.26 Protect Fish and Wildlife Resources

Ensure that development will minimize the disruption of fish and wildlife and their habitats.

1.27 Regulate Development to Protect Sensitive Habitats

Regulate land uses and development activities within and adjacent to sensitive habitats in order to protect critical vegetative, water, fish and wildlife resources; protect rare, endangered, and unique plants and animals from reduction in their range or degradation of their environment; and protect and maintain the biological productivity of important plant and animal habitats.

1.29 Uses Permitted in Sensitive Habitats

Within sensitive habitats, permit only those land uses and development activities that are compatible with the protection of sensitive habitats, such as fish and wildlife management activities, nature education and research, trails and scenic overlooks and, at a minimum level, necessary public service and private infrastructure.

1.31 Regulate the Location, Siting and Design of Development in Sensitive Habitats

Regulate the location, siting and design of development in sensitive habitats and buffer zones to minimize to the greatest extent possible adverse impacts, and enhance positive impacts.

San Mateo County Local Coastal Program

The San Mateo County Local Coastal Program (LCP) contains the following policies that are relevant to the proposed project (County of San Mateo 2013).

[1] Includes special-status species and critical habitat.

7.1 Definition of Sensitive Habitats

Define sensitive habitats as any area in which plant or animal life or their habitats are either rare or especially valuable and any area which meets one of the following criteria: (1) habitats containing or supporting rare and endangered species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.

Sensitive habitat areas include, but are not limited to, riparian corridors, wetlands, marine habitats, sand dunes, sea cliffs, and habitats supporting rare, endangered, and unique species.

7.3 Protection of Sensitive Habitats

a. Prohibit any land use or development which would have significant adverse impact on sensitive habitat areas.
b. Development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. All uses shall be compatible with the maintenance of biologic productivity of the habitats.

7.7 Definition of Riparian Corridors

Define riparian corridors by the limit of riparian vegetation (i.e., a line determined by the association of plant and animal species normally found near streams, lakes and other bodies of freshwater: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder). Such a corridor must contain at least a 50% cover of some combination of the plants listed.

7.14 Definition of Wetland

Define wetland as an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), in tidally influenced areas (near the ocean and

usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.

In San Mateo County, wetlands typically contain the following plants: cordgrass, pickleweed, jaumea, frankenia, marsh mint, tule, bullrush, narrow-leaf cattail, broadleaf cattail, pacific silverweed, salt rush, and bog rush. To qualify, a wetland must contain at least a 50% cover of some combination of these plants, unless it is a mudflat.

7.33 Permitted Uses (Rare and Endangered Species)

b. If the critical habitat has been identified by the Federal Office of Endangered Species, permit only those uses deemed compatible by the U.S. Fish and Wildlife Service in accordance with the provisions of the Endangered Species Act of 1973, as amended.

7.48 Monterey Pine (Unique Species)

a. Require any development to keep to a minimum the number of native Monterey pine cut in the natural pine habitat near the San Mateo-Santa Cruz County line.

5.4.2 Environmental Setting

Methodology

ICF biologists performed a literature and database review prior to conducting field surveys. Occurrence records for special-status species in the proposed project study area (study area), comprised of the Año Nuevo, Franklin Point, La Honda, Pigeon Point, and San Gregorio U.S. Geological Survey (USGS) quadrangles were compiled from the California Natural Diversity Database (CNDDB) (CDFW 2012 and CDFW, 2013, as cited in ICF 2013); the CNPS's online Inventory of Rare and Endangered Plants (5-mile radius around project alignment) (CNPS 2012 and CDFW 2013, as cited in ICF 2013); and a list of endangered, threatened, proposed, or candidate species covered under ESA that potentially occur in the study area (list obtained from USFWS Sacramento Office website) (USFWS 2012 and USFWS 2013, as cited in ICF 2013).

Walking and driving surveys of the entire proposed project alignment were undertaken in two separate visits by ICF biologists. The survey area encompassed 100 feet on either side of the proposed project alignment. On August 16, 2012, a 9-mile section of the proposed project alignment running from the San Mateo County border, north, to the Pigeon Point Road hub was

surveyed. The remaining 6-mile section, from the junction of Pigeon Point Road and Highway 1 (Hwy 1) to the junction of Bean Hollow Road and Reservoir Road hub, was surveyed on May 21 2013. General habitat conditions and important habitat features were identified. Vegetation classifications were based on descriptions in the second edition of A Manual of California Vegetation (Sawyer et al. 2009). Wildlife surveys were undertaken concurrently to evaluate the potential for special-status species to occur.

On January 15, 2014, a Dudek biologist visited the proposed site of the underground boring pit and riser pole near Gazo Gas Station on Hwy 1 to refine the vegetation classification and assess the vegetation type and wetland boundary at this pole location in relation to Gazo Creek to the north (Dudek 2014).

General Description

The proposed project is within the San Francisco Bay Floristic Province (Jepson 2014). Regional weather patterns consist of cool wet winters and dry summers with fog in the morning and evening. The proposed project alignment generally follows Hwy 1 at an elevation of about 50 feet above mean sea level. However, the proposed project alignment rises up to 480 feet above sea level to interconnect to the existing Pigeon Point Road cell tower. Several small westerly-draining coastal streams cut through the landscape to create ravines/gulches whose outlets lead to wider beaches and/or brackish water lagoons. The proposed project alignment spans nine perennial creeks, five intermittent/ephemeral creeks, and two small lakes (Lucerne Lake and an unnamed pond) (USGS 2013).

Natural Communities

Eight natural communities (northern coastal scrub, coast live oak woodland, Monterey pine forest, willow riparian shrub, coastal terrace prairie, non-native grassland, eucalyptus forest, and freshwater marsh and pond) were observed in the survey area. Developed and paved areas are also present. These natural communities are described further below.

Two of these communities, non-native grassland (approx. 7.73 acres mapped in the survey area) and eucalyptus forest (approximately 4.69 acres mapped in the survey area) are dominated by non-native plant species and were found within the survey area adjacent to Hwy 1. Non-native grassland areas were also found opposite the Año Nuevo State Preserve.

Common native communities include northern coastal scrub (96.21 acres mapped in the survey area). Dominated by coyote brush (Baccharis pilularis) and California sagebrush (Artemisia californica), these communities were evident along Bean Hollow Road, and adjacent to Hwy 1. Northern coastal scrub is the most common community within the survey area. The second

common native community is coastal live oak woodland, dominated by coast live oak (Quercus agrifolia); this community occurs adjacent to the parking lot of Año Nuevo State Preserve (within the state park). The project area is within the infestation and quarantine zone for Sudden Oak Death (SOD), and coast live oak communities are susceptible to infection with this pathogen. To control the spread of this pathogen, Año Nuevo State Preserve uses guidance provided by the California Oak Mortality Task Force (Bakken pers com 2014).

Two sensitive native upland communities were identified within the survey area. The first, coastal terrace prairie (25.27 acres mapped in survey area), occurs primarily in the northern portion of the survey area along Pigeon Point Road, and along the eastern side of Hwy 1 between Whitehouse Creek and Cascade Creek. The dominant species are Pacific reedgrass (*Calamagrostis nutkaensis*), California oatgrass (*Danthonia californica*), and tufted hairgrass (*Deschampsia caespitosa*). Coastal terrace prairie is considered a sensitive natural community by CDFW. The second, Monterey pine forest (8.49 acres mapped in survey area), occurs in two locations within the survey area. The northern area, along Bean Hollow Road, is planted. In the southern part of the survey area, a native Monterey pine (Pinus radiata) community was observed adjacent to the Año Nuevo State Preserve parking lot and within the Año Nuevo State Preserve. The Año Nuevo State Preserve community is one of only three natural communities of Monterey pines to occur nationally. Due to the rarity of naturally occurring Monterey pines, CDFW considers Monterey pine forest a sensitive natural community. Further, Monterey pines are known to be susceptible to pine pitch canker (*Fusarium circinatum*), a fungal pathogen that leads to severe deformation, crown death, and eventually death known to occur throughout the coastal counties including San Mateo (PCTF, 2014). The Año Nuevo State Preserve uses guidance provided by the State Forestry and Fire Board Pitch Canker Task Force to manage the spread of pine pitch canker (Bakken pers com 2014).

Two wetland and riparian communities occur within the survey area. The first, willow riparian shrub (3.37 acres mapped in the survey area), occurs along several of the gulches and ravines that the proposed project would cross. The willows form a dense, closed canopy with little to no understory. Willow species in this community include arroyo willow (*Salix lasiolepis*) and Sitka willow (*Salix sitchensis*). Willow riparian shrub is most evident in the survey area around Lucerne Lake and in several gulches/ravines that the proposed project would span along Hwy 1. The second community is freshwater marsh (1.14 acres mapped in the survey area), which is dominated by cattails, tules (*Schoenoplectus* spp.), and rush species; cattails and tules were observed at a pond located near Pigeon Point Road. Due to their high wildlife value, CDFW considers freshwater marsh and ponds to be a sensitive natural community.

Special-Status Species

For the purposes of this analysis, special-status species are defined as follows:

- Species listed or proposed for listing as threatened or endangered under ESA (50 CFR 17.12 for listed plants; 50 CFR 17.11 for listed animals; and various notices in the Federal Register [FR] for proposed species).
- Species that are candidates for possible future listing as threatened or endangered under ESA (74 FR 57804, November 9, 2009).
- Species that are listed or proposed for listing by the state of California as threatened or endangered under CESA (14 CCR 670.5).
- Plants listed as rare under the CNPPA (California Fish and Game Code Section 1900, et seq.).
- Plants considered by CNPS to be "rare, threatened, or endangered in California and elsewhere" (List 1B and 2) (CNPS 2012, 2013).
- Species that are not state- or federally listed but under the CEQA Guidelines, Section 15380, meet the definition of rare (species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range) or endangered (species' survival and reproduction in the wild are in immediate jeopardy).

Plants

CNDDB and CNPS databases searches identified 33 special-status plant species that occurred within the study area. Of these, 16 species have been recorded within a 1-mile radius of the proposed project alignment and have a high to moderate potential to occur within the proposed project area (Table 5.4-1). These include:

- Blasdale's bent grass (*Agrostis blasdalei*) – CRPR 1B.2
- coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*) – CRPR 1B.2
- robust spineflower (*Chorizanthe robusta* var. *robusta*) – Federal endangered, CRPR 1B.1
- sand-loving wallflower (Erysimum ammophilum) – CRPR 1B.2
- Kellogg's horkelia *(Horkelia cuneata* var. *sericea)* – CRPR 1B.1
- perennial goldfields (*Lasthenia californica* ssp. *macrantha*) – CRPR 1B.2
- coast yellow leptosiphon (*Leptosiphon croceus*) – CRPR 1B.2
- San Francisco lessingia *(Lessingia germanorum)* – Federal endangered, State endangered, CRPR 1B.1

- Point Reyes meadowfoam (*Limnanthes douglasii* ssp. *Sulphurea)* - State endangered, CRPR 1B.2
- marsh microseris (*Microseria paludosa*) – CRPR 1B.2
- Monterey pine (*Pinus radiata*) – CRPR 1B.1
- Choris' popcorn-flower (*Plagiobothrys chorisianus* var. *chorisianus*) – CRPR 1B.2
- San Francisco popcorn-flower (*Plagiobothrys diffusus*) – State endangered, CNPS 1B.1
- Hickman's potentilla *(Potentilla hickmanii)* – Federal endangered, State endangered, CRPR 1B.1
- San Francisco campion (*Silene verecunda* ssp. *Verecunda)* – CRPR 1B.2
- Santa Cruz microseris (*Microseris paludosa*) – CRPR 1B.2.

During the August 16, 2012, survey, perennial species would have been identifiable while annuals would have not been identifiable. During the May 21, 2013, survey, all perennial shrubs would have been identifiable. During both surveys, ICF biologists only observed Monterey pines located within Año Nuevo State Preserve; no other special-status plants were observed or detected within the survey area.

Database records identified two other special-status plant species in the survey area. The first, perennial goldfields, is located west of Hwy 1 just west of Pigeon Point Road near the lighthouse. The second, Blasdale's bent grass is located along Hwy 1 approximately 1 mile southeast of Pigeon Point Road. Recorded occurrences for the other special-status plants occur outside of the survey area.

Wildlife

The CNDDB identified 30 special-status wildlife species within the study area, of which 9 have a moderate to high potential to occur (Table 5.4-2). The species are:

- monarch butterfly (*Danaus plexippus*) – considered a special-status species by CDFW
- tidewater goby (*Eucyclogobius newberryi*) – federally threatened, California species of special concern
- California red-legged frog (*Rana draytonii*) – federally threatened
- central California coast steelhead (*Oncorhynchus mykiss*) – federally threatened
- western pond turtle (*Actinemys marmorata*) – California species of special concern

- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) – federally endangered, California endangered/California fully protected
- western snowy plover (*Charadrius alexandrinus nivosus*) – federally threatened, California species of special concern
- tricolored blackbird (*Agelaius tricolor*) – California species of special concern
- American badger (*Taxidea taxus*) – California species of special concern.

During both surveys, no special-status wildlife species were observed by ICF biologists. However, database records identified two special-status species—California red-legged frog and monarch butterfly—in the survey area, and an additional four species—San Francisco garter snake, tidewater goby, western pond turtle, and western snowy plover—within a 1-mile radius of the proposed project alignment. These species are discussed further below.

Monarch butterflies migrate to the coastal areas of California and form colonies that overwinter in large stands of blue gum (*Eucalyptus globulus*) trees. Several occurrences have been recorded within 1 mile of the project, and two occurrences have been recorded within the project survey area: the first just north of Pigeon Point Lighthouse on Pigeon Point Road and the second in woodland habitat surrounding Año Nuevo Creek.

A single occurrence of tidewater goby has been observed in Lucerne Lake lagoon, which the proposed project would span. The proposed project would also span three creeks identified as critical habitat for coho salmon (*Oncorhynchus kisutch*) and steelhead—Año Nuevo Creek, Whitehouse Creek, and Gazo Creek—although no occurrences of either of these species have been record within 1 mile of the proposed project.

Lakes and pools throughout the study area provide suitable habitat for California red-legged frog, San Francisco garter snake, and western pond turtle, all of which have been documented in CNDDB as occurring within the proposed project area. The first of three known occurrences of California red-legged frog within the survey area is near the northern end of the survey area in Lucerne Lake. The second occurrence is in a pond at the junction of Reservoir Road and Bean Hollow Road. The third occurrence is near New Years Creek Road, south of Año Nuevo Creek. While no California red-legged frogs were observed in the survey area during the August 2012 or May 2013 surveys, areas adjacent to the underground portion of the proposed project could be suitable upland habitat for California red-legged frog. Further, project activities that are within the Año Nuevo State Preserve, or are on the east side of Hwy 1 between Gazo Creek and Lucerne Lake would occur within designated critical upland habitat for the California red-legged frog.

The riparian and wetland habitat surrounding Lucerne Lake and other ponds also offer suitable habitat for San Francisco garter snake, which has six recorded occurrences with a 1-mile radius of the project alignment. These same ponds are also suitable habitat for western pond turtle, although only a single CNDDB occurrence has been recorded in the study area.

Snowy plovers are a marine and shoreline bird that nest along the shore within 1-mile of the proposed project alignment. However, their life history requirements indicate that they are unlikely to be affected by the proposed project because they will mainly occur on the coast. Tricolored black birds are a colonial species of blackbird that nest near freshwater marshes. Individuals have been recorded in the study area, but none have been identified within a 1-mile radius of the proposed project alignment. Their nesting colonies are considered a sensitive resource by CDFW.

Both native and non-native woodland habitats within the survey area may provide suitable locations for nesting special-status raptors including Cooper's hawk (*Accipiter cooperii*) and sharp shinned hawk (*Accipiter striatus*).

American badger is a widespread, medium size nocturnal carnivore that requires open uncultivated ground (e.g., coastal terrace prairie). Although there is a moderate likelihood of occurring in the study area, no evidence of badger activity was recorded during field reconnaissance surveys of the survey area.

Table 5.4-1
Special-Status Plant Species with the Potential to Occur in the Project Area

Species	Status [1]			Habitat	California Distribution	Blooming Period	Elevation Range (meters)	Potential to Occur in Project Area
	USFWS	*CDFW*	*CNPS*					
Agrostis blasdalei Blasdale's bent grass	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie	Mendocino, Marin, Santa Cruz, San Mateo, and Sonoma counties	May–July	5–150	High. One occurrence recorded within study area along Hwy 1 between Año Nuevo State Preserve and Davenport about 1.8 miles southeast of Swanton Road at Hwy 1. Not observed May 2013.
Astragalus pycnostachyus var. *pycnostachyus* Coastal marsh milk-vetch	—	—	1B.2	Coastal dunes (mesic), coastal scrub, coastal salt marshes and swamps and stream sides	Humboldt, Marin, and San Mateo counties	April–October	0–30	Moderate to high. Potential habitat found in study area. Not observed during August 2012 survey. Not observed May 2013.
Chorizanthe robusta var. *robusta* Robust spineflower	E	—	1B.1	Maritime chaparral, cismontane woodland openings, coastal dunes, coastal scrub	Alameda, Monterey, Marin, Santa Clara, Santa Cruz, San Francisco, San Mateo counties	April–September	3–300	Low to Moderate. Potential habitat is present within study area. Not observed August 2012.
Erysimum ammophilum Sand-loving wallflower	—	—	1B.2	Chaparral, coastal dunes, coastal scrub on sandy soils in openings	Monterey, Santa Barbara, Santa Cruz, San Diego, San Mateo counties and Santa Rosa Island	February–June	0–60	Moderate to High. Potential habitat present in study area. Not observed May 2013.
Horkelia cuneata var. *sericea* Kellogg's horkelia	—	—	1B.1	Closed-cone coniferous forest, maritime chaparral, coastal dunes, coastal scrub on sandy or gravelly soils and in openings	Alameda, Monterey, Marin, San Barbara, Santa Cruz, San Francisco, San Luis Obispo, and San Mateo counties	April–September	10–200	Moderate to High. Potential habitat in study area. Not observed May 2013.

Table 5.4-1
Special-Status Plant Species with the Potential to Occur in the Project Area

Species	Status [1]			Habitat	California Distribution	Blooming Period	Elevation Range (meters)	Potential to Occur in Project Area
	USFWS	*CDFW*	*CNPS*					
Lasthenia californica ssp. *macrantha* Perennial goldfields	—	—	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub	Mendocino, Marin, San Luis Obispo, San Mateo and Sonoma Counties	January–November	5–520	High. Potential habitat present with known occurrences within 1 mile of proposed project alignment. Not observed August 2012 or May 2013.
Leptosiphon croceus Coast yellow leptosiphon	—	—	1B.1	Coastal bluff scrub, coastal prairie	Monterey, Marin, and San Mateo counties	April–May	10–150	Moderate to high. Potential habitat in coastal prairie in northern portion of study area. Not observed May 2013.
Lessingia germanorum San Francisco lessingia	E	E	1B.1	Coastal scrub (remnant dunes)	San Francisco and San Mateo counties	June–November	25–110	Moderate to high. Potential habitat found in study area. Not observed August 2012.
Limnanthes douglasii ssp. *sulphurea* Point Reyes meadowfoam	—	E	1B.2	Coastal prairie, meadows and seeps, freshwater marshes and swamps and vernal pools	Marin and San Mateo counties	March–May	0–140	Low to moderate. Potential habitat present in northern portion of study area in 2012 . Not observed May 2013.
Microseria paludosa Marsh microseris	—	—	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland	Mendocino, Monterey, Marin, San Benito, Santa Cruz, San Francisco, San Luis Obispo, San Mateo and Sonoma counties	April–June (sometimes July)	5–30	Low to moderate. Potential habitat in study area although much of the habitat along the highway is disturbed 2012. Not observed May 2013.

Table 5.4-1
Special-Status Plant Species with the Potential to Occur in the Project Area

Species	Status [1]			Habitat	California Distribution	Blooming Period	Elevation Range (meters)	Potential to Occur in Project Area
	USFWS	*CDFW*	*CNPS*					
Pinus radiata Monterey pine	—	—	1B.1	Closed-cone coniferous forest, cismontane woodland	Monterey, Santa Cruz, San Luis Obispo, and San Mateo counties	Not applicable	25–185	High. This species is present in the study area. There are only three native stands in California and one is at Año Nuevo State Preserve.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcorn-flower	—	—	1B.2	Chaparral, coastal prairie and mesic coastal scrub	Alameda, Santa Cruz, San Francisco, and San Mateo counties	March–June	15–160	Moderate to high. Potential habitat in study area. Not observed May 2013.
Plagiobothrys diffusus San Francisco popcorn-flower	—	E	1B.1	Coastal prairie, valley, and foothill grassland	Alameda, Santa Cruz, San Francisco, and San Mateo counties.	March–June	60–360	Low to Moderate. Potential habitat in study area but the grassland habitats are highly disturbed. Not observed May 2013.
Potentilla hickmanii Hickman's potentilla	E	E	1B.1	Coastal bluff scrub, closed-cone coniferous forest, vernally mesic meadows and seeps, freshwater marshes and swamps	Monterey, San Mateo, and Sonoma counties	April–August	10–149	Low to moderate. Potential habitat in study area near unnamed pond, in survey area otherwise habitat is lacking.
Silene verecunda ssp. *verecunda* San Francisco campion	—	—	1B.2	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland on sandy soils	Santa Cruz, San Francisco, San Mateo, and Sutter counties	March–June (sometimes August)	30–645	Low to moderate. Potential habitat in study area. Not observed May 2013.

Table 5.4-1
Special-Status Plant Species with the Potential to Occur in the Project Area

Species	Status [1]			Habitat	California Distribution	Blooming Period	Elevation Range (meters)	Potential to Occur in Project Area
	USFWS	*CDFW*	*CNPS*					
Stebbinoseris decipiens Santa Cruz microseris	—	—	1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland in open areas, sometimes on serpentinite soils	Monterey, Marin, Santa Cruz, San Francisco, San Luis Obispo, and San Mateo counties	April–May	10–500	Low to moderate. Potential habitat in study area although grassland habitats are highly disturbed. No serpentinite soils in study area. Not observed May 2013.

Sources: CNDDB 2007; CNPS 2007; USFWS 2006a.

[1] Status:

U.S. Fish and Wildlife Service (USFWS) Federal Listing Categories

E = Listed as endangered under the federal Endangered Species Act (legally protected).

California Department of Fish and Wildlife (CDFW) State Listing Categories

E = Listed as endangered under the California Endangered Species Act.

California Native Plant Society (CNPS) Categories

1B = Rare, threatened, or endangered in California and elsewhere.

Threat Code Extensions

.1 = Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).

.2 = Fairly threatened in California (20% to 80% of occurrences threatened; moderate degree and immediacy of threat).

Table 5.4-2
Special-Status Wildlife Species with Potential to Occur in the Project Vicinity

Common and Scientific Name	Status[a] *Federal/State*	California Distribution	Habitats	Potential Occurrence in the Study Area
Invertebrates				
Danaus plexippus Monarch butterfly (overwintering habitat)	—/—	Adults migrate from August-October, and winter along the California coast and in central Mexico.	Open habitats including fields, meadows, weedy areas, marshes, and roadsides. Monarch butterflies roost in wind-protected tree groves (such as eucalyptus) with nectar and water sources nearby. Caterpillar host plants are milkweeds.	High. CNDDB records in the project area and eucalyptus groves in the project area.
Amphibians				
Rana draytonii California red-legged frog	T/SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Butte County to Calaveras County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods	High. Numerous CNDDB records within 1 mile of the proposed project. Several ponds that provide aquatic habitat occur near the proposed project area. Suitable upland habitat within the proposed project area.
Fish				
Eucyclogobius newberryi Tidewater goby	T/—	Range extends from the mouth of Smith River (Del Norte County) south to San Diego County.	Brackish lagoons and sloughs.	High. Known from CNDDB to occur in Lucerne Lake lagoon.
Oncorhynchus mykiss Central California coast steelhead	T/—	In streams from the Russian River to Aptos Creek, Santa Cruz County (inclusive), and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), Napa County, excluding the	Ocean and freshwater rivers and streams.	High. Several streams that are designated Critical Habitat are crossed by the proposed project.

Table 5.4-2
Special-Status Wildlife Species with Potential to Occur in the Project Vicinity

Common and Scientific Name	Status[a] *Federal/State*	California Distribution	Habitats	Potential Occurrence in the Study Area
		Sacramento-San Joaquin River Basin of the Central Valley.		
Reptiles				
Emmys marmorata Western pond turtle	—/SSC	The range of the northwestern subspecies extends from Oregon border of Del Norte and Siskiyou counties south along coast to San Francisco Bay, inland through Sacramento Valley.	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation.	High. Several ponds near proposed project area. Pond turtles could nest in upland habitat around these ponds.
Thamnophis sirtalis tetrataenia San Francisco garter snake	E, E/FP	Northern San Mateo County southward along the coast and the eastern slope of the Santa Cruz Mountains to the Santa Cruz County line.	Favors ponds, lakes, slow moving streams and marshy areas containing abundant vegetation, which it uses for cover; nearby upland habitat is important during fall and winter.	High. Known populations near proposed project areas. Several ponds and drainages that provide suitable aquatic habitat near proposed project. Potential for SFGS to move into uplands adjacent to away from aquatic habitat.
Birds				
Agelaius tricolor Tricolored blackbird	—/SSC	Common locally throughout Central Valley and in coastal areas from Sonoma County south to Southern California.	Breeds near freshwater in emergent wetland vegetation, thickets.	Moderate. Suitable nesting habitat present in riparian habitats in proposed project area.

Table 5.4-2
Special-Status Wildlife Species with Potential to Occur in the Project Vicinity

Common and Scientific Name	Status[a] *Federal/State*	California Distribution	Habitats	Potential Occurrence in the Study Area
Mammals				
Taxidea taxus American badge	—/SSC	Throughout California, except for the humid coastal forests of northwestern California in Del Norte County and the northwestern portion of Humboldt County.	Requires sufficient food, friable soils, and relatively open uncultivated ground. Preferred habitat includes grasslands, savannas, and mountain meadows near timberline.	Moderate. Suitable habitat in annual grassland and coastal terrace prairie in survey area.

[a] Status explanations:

Federal

E = Listed as endangered under the federal Endangered Species Act.
T = Listed as threatened under the federal Endangered Species Act.
— = No Listing

State

E = Listed as endangered under the California Endangered Species Act.
FP = Fully protected under the California Fish and Game Code.
SSC = Species of special concern in California.
— = No Listing

5.4.3 Applicant Proposed Measures

The proposed project would integrate the following Applicant Proposed Measures (APMs) into the proposed project.

APM-BIO-1

- Conduct spring surveys for special-status plants within the project area.
- Prior to construction, a qualified botanist will complete spring surveys for special-status plants within the project area to determine the presence or absence of special-status plants. The survey will be completed by qualified botanists and will be conducted during the appropriate period(s) necessary to observe special-status plants known to occur in the region.
- If a population of a special-status plant species occurs within the project area, the population will be clearly staked and flagged in the field by a qualified botanist prior to construction so the population can be avoided. If the population cannot be avoided during construction, Crown Castle will minimize impacts by reducing the work area to the smallest area necessary to complete the work. Crown Castle will conduct project activities and necessary ground disturbance in a manner that is consistent with the successful reestablishment of the species to the extent feasible. The specific actions necessary will depend on the biology of the species, and will be determined through consultation with the USFWS and CDFW. Generally actions include waiting for the plant species to go to seed and collecting the seed for future planting and saving the top 6 inches of top soil (which contains the seed bank) separate from other excavated soil.

APM-BIO-2

- Conduct a pre-construction nesting survey to minimize impacts to nesting birds and raptors (February through August).
- If the proposed project is completed outside of the nesting season of birds, no additional measures will be necessary.
- If construction will take place during the nesting season (generally February through August) Crown Castle will conduct preconstruction nesting bird surveys. If an active nest is identified during the surveys, Crown Castle, in consultation with CDFW and USFWS, will establish a no-construction zone until the breeding season is completed or subsequent bird/raptor surveys

confirm that all offspring have fledged and no new nests have been established. Generally, these no construction zones are 50 feet for passerine birds and 250 feet for raptors.

APM-BIO-3

- Conduct preconstruction survey to minimize impacts to wintering monarch butterflies for construction in late fall and winter months.
- If the proposed project is scheduled to occur during the late fall and winter months and trimming of eucalyptus trees is required, a biologist will conduct a preconstruction survey to determine if the trees that require trimming and the surrounding trees support overwintering clusters of monarch butterflies. If clusters of monarch butterflies are present, Crown Castle, in consultation with CDFW, will establish a no construction zone until after the monarch butterflies have migrated. Generally, this no construction zone is 30 feet from wintering monarch butterflies.

APM-BIO-4

- Measures to minimize impacts to California red-legged frogs, San Francisco garter snakes, and western pond turtles.
- Work should be avoided from October 16 (or the first measurable rainfall of 1 inch or greater) to May 14. If work cannot be avoided during this period then it is recommended that a qualified biological monitor be present for all ground-disturbing activities.
- It is recommended that a qualified biologist familiar with California red-legged frogs, San Francisco garter snake, and western pond turtle conduct a preconstruction survey immediately prior to construction in areas where ground disturbance will occur. During the preconstruction survey, the biologist will also look for and identify burrows that could be used by California red-legged frogs. These areas will be flagged (as practical) for avoidance. The biologist will remain onsite for the duration of any construction activities involving excavation or the use of heavy machinery or equipment.
- Prior to work the construction crew will receive worker environmental awareness training. Training will include review of environmental laws and protective measures that must be followed by all personnel to reduce or avoid effects on protected species during construction activities.

- Any holes, trenches, pits, and/or tanks that are left open overnight will either be covered to prevent entry or one side will be sloped to allow wildlife to escape. Open holes, trenches, pits, and/or tanks left overnight will be checked by a qualified biologist at the start of construction each day to determine whether trapped wildlife are present. If wildlife are present, they will be removed by the biologist before the hole, trench, or pit is filled.
- Plastic monofilament netting (erosion control matting) or similar material containing netting will not be used at the project. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.
- Handling of California red-legged frogs is prohibited without a valid federal take permit and handling of San Francisco garter snakes is prohibited without a valid federal take permit and a CESA Section 2081 Incidental Take Permit. Any California red-legged frogs or San Francisco garter snakes observed on the work site will be allowed to move offsite on their own.
- If California red-legged frogs, San Francisco garter snakes, and western pond turtles are observed on or adjacent to the work site, and are in danger of injury, construction in the vicinity will cease until no danger exists for California red-legged frogs or San Francisco garter snakes.

5.4.4 Environmental Impacts and Mitigation

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? Less t han Significant.

Special-Status Plants

Construction

Construction activities associated with soil disturbance (i.e., replacement of approximately 14 poles, horizontal directional drilling (HDD) entry/exit pits), and overland travel/compaction (i.e., foot traffic to pole locations that are not accessible from local roadways) could result in temporary impacts to special-status plants.

Two occurrences, one each of Blasdale's bent grass and perennial goldfields, have been documented within the survey area. ICF biologist also observed Monterey pines located

within Año Nuevo State Preserve during August 2012 and May 2013 surveys. Recorded occurrences for the other 13 special-status plants occur outside of the proposed project survey area but do have a high to moderate potential to occur within the study area.

Under APM-BIO-1, the applicant would conduct spring surveys for special-status plant species in areas within proximity to the proposed project alignment that could be impacted by project activities. If special-status plant species are identified, prior to construction, those plant/populations will be flagged and impacts avoided and or reduced where feasible. If avoidance of impacts is not feasible, the Applicant will coordinate with the USFWS and CDFW to determine appropriate restorative measures.

Construction activity may require the removal of limbs from Monterey pine trees. For impacts to Monterey pine, see discussion relating to the Monterey pine special-status community in criterion b: Impacts to special status communities.

With integration of APM-BIO-1 temporary construction-related impacts to special-status plants would be less than significant.

Operation and Maintenance

Operation of the proposed project would not result in impacts to special-status plant species because no physical activity/disturbance would occur.

Maintenance activities would be similar to on-going, as-needed maintenance activities associated with the existing utilities within the proposed project alignment. Therefore, since the change from baseline conditions with respect to long-term maintenance activities would be imperceptible, impacts to special status plants would be less than significant.

Special-Status Wildlife

Fish

No construction, operation, or maintenance activities would occur with waterways or riparian corridors; therefore, no impacts to tidewater goby or central California coast steelhead could occur.

Amphibians/Reptiles

Construction and Maintenance

No construction or maintenance activities would occur in potential wetland habitat that could support California red-legged frog, San Francisco garter snake, and/or western pond turtle. All potential wetland habitat would be spanned by fiber-optic cable. Activities (i.e., stringing and tree trimming) would be concentrated at the existing pole locations, which are at least 60 feet from the banks and streambed of said features. Therefore no impacts would occur.

Construction activities associated with soil disturbance and overland travel/compaction could result in temporary disturbance in designated critical upland habitat for California red-legged frog, as well as, upland habitat for San Francisco garter snake and western pond turtle. With integration of APM-BIO-3, construction activity would not take place in upland habitat between October and May. However, should this be infeasible, pre-construction surveys would be undertaken in conjunction with worker education, monitoring, and avoidance measures to ensure impacts to individuals are avoided. With the integration of APM-BIO-3 into proposed project design, impacts to reptiles and amphibians would be less than significant.

Operation

Operation of the proposed project would not result in impacts to special-status amphibians and reptile species because no physical activity/disturbance would occur.

Nesting Birds

Construction

Nesting birds, including tricolored blackbirds and raptors, are protected under the Migratory Bird Treaty Act and the California Fish and Game Code. Construction activities such as tree trimming and operation of heavy equipment associated with pole replacement and cable stringing, conducted during the nesting season, generally between February and August, could disturb nesting birds and result in nest failure. With integration of APM-BIO-2, which would require pre-construction surveys, and consultation with USFWS and CDFW to restrict activities near active nests until breeding season is completed, or subsequent bird/raptor surveys confirming that all offspring have fledged and no new nests have been established, potential impacts to nesting birds would be less than significant.

Operation and Maintenance

The proposed project would include approximately 14 replacement poles, 5 antenna/node poles and 1 new fiber-optic cable on an existing utility pole alignment. While there would be potential for birds to collide with the upgraded components of the proposed project during operations, the risk would be low since the proposed project components would be installed on existing poles with existing utilities (i.e., electric, telephone, fiber optic). Therefore, the potential for avian collision would not substantially increase from baseline conditions, and impacts would be less than significant.

Maintenance activities would be similar to on-going, as-needed maintenance activities associated with the existing utilities within the proposed project alignment. Therefore, since the change from baseline conditions with respect to long-term maintenance activities would be imperceptible, impacts to nesting birds would be less than significant.

Mammals

Construction

Construction activities associated with soil disturbance and overland travel/compaction could result in temporary disturbance of American badger. Construction activities could disturb existing setts or result in adverse impacts or loss of badger foraging habitat. No badger burrows or diggings were identified in the project survey area during either survey period; therefore, impacts to badgers are unlikely. Construction activities would take place in the daytime and would be temporary in duration. Since badgers are nocturnal, no foraging habitat would be lost due to construction activities. Further, since pole replacement and ground-disturbance activities would result in no net loss of habitat, there would be no permanent disturbance of badger habitat. Therefore, construction, operation, and maintenance would result in no impacts to badger activity.

Operation and Maintenance

Operation of the proposed project would not result in impacts to American badger because no physical activity/disturbance would occur.

Maintenance activities would be similar to on-going, as needed maintenance activities associated with the existing utilities within the proposed project alignment. Therefore, since the change from baseline conditions with respect to long-term maintenance activities would be imperceptible, impacts to American badger would be less than significant.

Other

Construction

Construction activities associated with the proposed project may require the pruning and/or removal of limbs from eucalyptus trees that contain overwintering populations of monarch butterflies. With the integration of APM-BIO-4, pre-construction surveys would ensure that the proposed project avoids overwintering monarch butterfly populations by establishing a 30-foot no-construction zone around the roost. Therefore, impacts to monarch butterflies would be less than significant.

Operation and Maintenance

Operation of the proposed project would not result in impacts to monarch butterfly.

Proposed maintenance activities would be similar to on-going, as-needed maintenance activities associated with the existing utilities within the proposed project alignment. Therefore, since the change from baseline conditions with respect to long-term maintenance activities would be imperceptible, impacts to monarch butterflies would be less than significant.

Significance: Less than Significant.

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

Two sensitive wetland communities (freshwater marsh and ponds and riparian willow shrub) and two sensitive upland communities (natural Monterey pine and coastal terrace prairies) occur within the survey area.

Within the survey area, two locations, Lucerne Lake and an unnamed pond adjacent to Hwy 1, are classified as freshwater marsh and pond communities. Three creeks—Gazo Creek, Green Oaks Creek, and Finney Creek—support willow riparian shrub communities. While the fiber-optic cable would span these communities, no activities would occur within or in close proximity to these features. Therefore, no direct or indirect impacts to these vegetation communities would occur.

Construction and maintenance activities associated with the proposed project may require the pruning and/or removal of limbs from Monterey pine and oak trees (including live oak and black oak) to enable access to existing poles or remove hazardous trees. Monterey pines are known to be susceptible to pine pitch canker, while live oak and black oak are susceptible to sudden oak death. Control and minimization of spread is necessary when trimming and removing limbs from these species. If unmitigated, trimming may result in the spread of pathogens from infected to uninfected trees. Accordingly, consistent with current practices within Año Nuevo State Preserve, the following mitigation measure shall be implemented to reduce this potential impact to a less than significant level.

Mitigation Measure BIO-1: The Applicant and/or its contractors shall implement the following measures during all Monterey pine (i.e., natural and planted stands), live oak and black oak tree pruning activities associated with construction and maintenance:

- Tools and machinery that are used to prune, cut, or chip trees infected with pine pitch canker or sudden oak death shall be cleaned and sterilized before and after use. When cutting or pruning a diseased tree, clean tools with a disinfectant before using them on uninfected trees. Lysol™ or a 10% solution of bleach (1 part household bleach in 9 parts water) are effective sterilants. A two minute soak time is recommended when using bleach.
- All tree material infected with pine pitch canker or sudden oak death shall be deposited on site, or may be taken to a designated disposal facility for prompt burial, chipping and composting, or burning.
- Any infected material removed from the site shall be tightly covered with a tarp during transit and shall not leave the zone of infestation.
- All individuals responsible for pruning, cutting, or chipping trees infected with pine pitch canker or sudden oak death shall be made aware of these measures.

Temporary impacts to coastal terrace from anchor and pole replacement activity would affect approximately 0.065 acre of coastal terrace prairie. However, replacement of a single pole would not result in permanent habitat loss. Given that 25.27 acres of coastal terrace prairie was mapped within the project survey area, replacement of a single pole would result in less than significant impacts to coastal terrace prairie.

Significance: Less than Significant with Mitigation.

c) Would the project 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? No Impact.

All construction and maintenance activities would take place outside of water features that could be designated as federally protected wetlands. While the proposed project would cross federally protected wetlands (i.e., fiber optic cable would span these features), activities (i.e., stringing and tree trimming) would be concentrated at the existing pole locations which are at least 60 feet from the banks and streambed of said features. Therefore, no direct or indirect impacts would occur.

Operation of the proposed project would have no impact on water features that could be designated as federally protected wetlands.

Significance: No Impact.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? Less than Significant.

For a discussion of migratory birds, see Criterion a) above.

Construction activities associated with the proposed project may result in the disturbance of overwintering populations of monarch butterflies. As discussed in Criterion (a), implementation APM-BIO-4 requires a biologist to conduct pre-construction surveys to determine if trees in the alignment support overwintering clusters of monarch butterflies. If clusters of monarch butterflies are present, the Applicant, in consultation with CDFW, will establish a no-construction zone until after the monarch butterflies have migrated. Therefore, impacts to monarch butterflies would be less than significant. As discussed in criterion a), proposed maintenance activities would be similar to on-going activities. Therefore, change from baseline conditions with respect to long-term maintenance would be imperceptible, and impacts to monarch butterflies would be less than significant.

Three creeks designated as critical habitat for coho salmon and steelhead would be spanned by the proposed project (Año Nuevo Creek, Gazos Creek, and Whitehouse Creek). In addition, Whitehouse, Gazos, and Arroyo de los Frijoles creeks are also considered by San Mateo County as a priority for restoration and recovery of coho and steelhead populations. Construction activities would include stringing fiber-optic cable

across these creeks to be attached to existing poles that are at least 60 feet from the banks of said creeks. Maintenance activities would generally be limited to the proximity of the existing poles and/or in proximity to a reported hazard tree (i.e., fallen tree). Since construction and maintenance activities associated with the proposed project would not require activity within the streambed or on the banks of any creeks, there would be no impacts to migratory fish corridors and/or designated critical habitat.

Operation of the proposed project would have no impact on migratory fish corridors or designated critical habitat.

Significance: Less than Significant.

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

San Mateo County General Plan

The San Mateo General Plan designates Lucerne Lake, Arroyo de los Frugoles Creek, Yankee Jim Gulch, Gazos Creek, Whitehouse Creek, and Cascade Creek as sensitive habitats. While these sensitive habitats would be spanned by the proposed project, no construction, operation, or maintenance activities would occur within the boundaries of any of these designated sensitive habitats. Therefore, the proposed project would not conflict with the San Mateo County General Plan, and no impact would occur.

Local Coastal Program

Section 7.1 of the LCP defines sensitive habitats as "habitats containing or supporting rare and endangered species as defined by the State Fish and Game Commission," and Section 7.3 "prohibits any land use or development that would have significant adverse impact on sensitive habitat areas." As discussed in criterion a), with the integration of APM-BIO-1, APM-BIO-2, APM-BIO-3, and APM-BIO-4, into proposed project design, impacts to sensitive habitats would be less than significant. Therefore, the proposed project would not conflict with this section of the LCP.

Sections 7.7 (riparian corridors) and 7.14 (wetlands) provide definitions of riparian corridors and wetlands within the coastal zone, which are subject to LCP policies. Since the proposed project would not undertake any activities in either of these habitat types, as defined by the LCP, the proposed project would not conflict with this section of the LCP.

Section 7.33 permits only those uses deemed compatible with critical habitat that has been identified by the Federal Office of Endangered Species, in accordance with the Endangered Species Act. The proposed project would span three creeks designated as critical habitat for coho salmon and steelhead; however, no activities would take place within the streambed or bank; therefore, no impacts would occur. The existing utility right-of-way (ROW) also traverses designated critical habitat for the California red-legged frog. Since the proposed project would be within this existing utility ROW and would not add physical components that could permanently affect critical habitat for the California red-legged frog, the current use would not change and no impact would occur. During construction, integration of APM-BIO-3 into the proposed project design would assure that impacts to California red-legged frog would be less than significant. Therefore, the proposed project would not conflict with this section of the LCP.

Section 7.48 provides for protection of Monterey pine by limiting the number of native Monterey pines cut by a project. Since the proposed project would not remove whole trees and with implementationMM-BIO-1 would reduce the risks of fungal pathogens, the proposed project would not conflict with this section of the LCP.

Significance: Less than Significant.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? No Impact.

The proposed project would not be within the geographic boundaries of any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.

Significance: No Impact.

5.4.5 References Cited

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5.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

5.5.1 Regulatory Setting

Federal

There are no relevant federal policies related to cultural resources.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to all discretionary projects undertaken or subject to approval by the state's public agencies (14 CCR 15000 et seq.). CEQA and the CEQA Guidelines include procedures for identifying, analyzing, and disclosing potential adverse impacts to historical and archeological resources, which include all resources listed in or formally determined eligible for listing in the California Register of Historical Resources (CRHR) or local registers.

CEQA requires that historical resources, which include architectural resources and prehistoric and historic-era archaeological resources, be taken into consideration during the CEQA planning process (14 CCR 15064.5; California Public Resources Code Section 21083.2).

CEQA defines a "historical resource" as a resource that meets any of the following criteria:

- A resource listed in, or determined to be eligible for listing in, the CRHR (California Public Resources Code Section 5024.1, 14 CCR 4850 et seq.);
- A resource included in a local register of historical resources, as defined in California Public Resources Code Section 5020.1(k);
- A resource identified as significant (e.g., rated 1–5) in a historical resource survey meeting the requirements of California Public Resources Code Section 5024.1(g); or
- Determined to be a historical resource by a project's lead agency, as defined in California Public Resources Code Section 5020.1(j) or 5024.1 (14 CCR 15064.5(a)(4)).

Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource (14 CCR 15064.5(a)(3)). A resource must retain adequate integrity to be listed in or eligible for the CRHR. Integrity is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity must be judged with reference to the particular criteria under which a resource is eligible for listing in the CRHR (14 CCR 4852(c)).

If feasible, adverse effects to historical resources must be avoided, or the effects mitigated (14 CCR 15064.5(b)(4)). The significance of a historical resource is impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for the CRHR.

If the cultural resource in question is an archaeological site, CEQA requires that the lead agency first determine if the site is a historical resource as defined in 14 CCR 15064.5(a]). If the archaeological site can be defined as a historical resource, then potential adverse impacts must be considered in the same manner as a historical resource, rather than as a unique archaeological site (see below). If the archaeological site does not qualify as a historical resource, but does qualify as a unique archaeological site, then the archaeological site is treated in accordance with California Public Resources Code Section 21083.2.

CEQA defines a "unique archaeological resource … [as] an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions, and that there is a demonstrable public interest in that information.
2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person" (California Public Resources Code Section 21083.2[g]).
4. Several sections of the California Public Resources Code protect paleontological resources. Section 5097.5 prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under State, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted permission.

California Register of Historical Resources

The CRHR is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. The CRHR helps government agencies identify and evaluate California's cultural resources, and indicates which properties are to be protected, to the extent prudent and feasible, from substantial adverse change (California Public Resources Code Section 5024.1[a]). Any resource listed in, or eligible for listing in, the CRHR, is to be considered during the CEQA process.

California Public Resources Code Section 5024.1 establishes the CRHR, sets forth the criteria to determine significance (detailed above), defines eligible properties, and lists nomination procedures. As described in subsection (d), resources that are automatically listed in the CRHR include those listed in or formally determined eligible for listing in the National register of Historic Places (NRHP) ("historic properties") and California Historical Landmarks from Number 770 onward.

The CRHR criteria for eligibility are virtually identical to those of the NRHP. Cultural resources may be listed in or eligible for the CRHR if they have significance and integrity.

A cultural resource is evaluated under four CRHR criteria to determine its historical significance. A resource must be significant in accordance with one or more of the following criteria (as defined in 14 CCR Section 15064.5[a] [3]):

(1) It is associated with events that have made a significant contribution to the broad pattern of California's history and cultural heritage;

(2) It is associated with the lives of persons important in our past;

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(4) It has yielded, or may be likely to yield, information important in prehistory or history.

CRHR criteria are tied to CEQA, as any resource that meets the above criteria and retains sufficient historic integrity (see criteria below) is considered a historical resource under CEQA.

In addition to meeting one or more of the above criteria, the CRHR requires that sufficient time must have passed to allow a "scholarly perspective on the events or individuals associated with the resource." Fifty years is used as a general estimate of the time needed to understand the historical importance of a resource (14 CCR 4852 (d)(2)). The California Office of Historic Preservation (OHP) recommends documenting, and taking into consideration in the planning process, any cultural resource that is 45 years or older (OHP 1995).

The CRHR also requires an eligible resource to possess integrity, which is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association" (14 CCR 4852(c)). Resources that are significant, meet the age guidelines, and possess integrity will generally be considered eligible for listing in the CRHR.

Other State Laws

Section 7050.5 of the Health and Safety Code protects human remains by prohibiting the disinterring, disturbing, or removing human remains in a location outside a dedicated cemetery. Section 5097.98 of the California Public Resources Code (and reiterated in CEQA Section 15064.5(e)) also states that in the event of the accidental discovery or recognition of any human remains in a location outside a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(a) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(b) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.
2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(a) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(b) The descendant identified fails to make a recommendation; or

(c) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

In addition, California's Public Resources Code (PRC) Section 5097.5 states that:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions

> made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on [lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof], except with the express permission of the public agency having the jurisdiction over the lands. Violation of this section is a misdemeanor.

Two sections of the California Code of Regulations (Title 14, Division 3, Chapter 1), applicable to lands administered by State Parks, address paleontological resources. The proposed project would traverse portions of Año Nuevo State Park and Pigeon Point Light Station State Historic Park. Applicable sections of Title 14, Division 3, Chapter 1 include:

> Section 4307: Geological Features—No person shall destroy, disturb, mutilate, or remove earth, sand, gravel, oil, minerals, rocks, paleontological features, or features of caves.

> Section 4309: Special Permits—[California Department of Parks and Recreation] may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological or paleontological materials; and any person who has been properly granted such a permit shall to that extent not be liable for prosecution for violating the foregoing.

Local

San Mateo County General Plan

The San Mateo County General Plan Historical and Archaeological Resources policies contain goals and objectives, definitions, and policies intended to protect the County's historical and archaeological resources, and defines historic resources as buildings, structures, signs, features, sites, places, areas or other objectives of scientific, educational, cultural, architectural, archaeological, historical or paleontological significance to the citizens of San Mateo County (County of San Mateo 1986). The San Mateo County General Plan contains the following relevant goals and objectives.

> 5.1 Historic Resource Protection

> Protect historic resources for their historic, cultural, social, and educational values and the enjoyment of future generations.

5.3 Protection of Archaeological/Paleontological Sites

Protect archaeological/ paleontological sites from destruction in order to preserve and interpret them for future scientific research, and public educational programs.

5.20 Site Survey

Determine if sites proposed for new development contain archaeological or paleontological resources. Prior to approval of development for these sites, require that a mitigation plan, adequate to protect the resource and prepared by a qualified professional, be reviewed and implemented as part of the project.

5.21 Site Treatment

a) Encourage the protection and preservation of archaeological sites; b) Temporarily suspend construction work when archaeological or paleontological sites are discovered. Establish procedures which allow for the timely investigation and/or excavation of such sites by qualified professionals as may be appropriate.

San Mateo County Local Coastal Program

The San Mateo County LCP contains the following policies that are relevant to the proposed project.

1.25 Protection of Archaeological/Paleontological Resources

Based on County Archaeology/Paleontology Sensitivity Maps, determine whether or not sites proposed for new development are located within areas containing potential archaeological/ paleontological resources. Prior to approval of development proposed in sensitive areas, require that a mitigation plan, adequate to protect the resource and prepared by a qualified archaeologist/paleontologist be submitted for review and approval and implemented as part of the project.

5.5.2 Environmental Setting

This section is based on the cultural resources assessment prepared for Crown Castle (ICF International 2012, 2013). The cultural resources study included a records search within 0.25 mile of the proposed project alignment, a survey of existing poles, proposed anchor sites, and surrounding areas, as well as the entire length of the proposed underground portion of the alignment in September 2012 and May 2013.

Records Search, Survey, and Results

Bibliographic references, previous survey reports, historic maps, and archaeological site records pertinent to the study area (the proposed project area and a 0.25-mile search radius surrounding it) were compiled through a record search of the California Historical Resources Information System (CHRIS) in order to identify prior archaeological studies and known cultural resources within the study area (ICF International 2012; 2013).

Twelve previously recorded sites were identified within a 0.25-mile radius of the proposed project. Of those twelve sites, nine are located within or adjacent to the proposed project area:

1. P-41-000119 (CA-SMA-117) consists of a midden site with chert flakes and is described as being covered in ice plant, poison oak, and other volunteer plants.
2. P-41-000156 (CA-SMA-155) consists of a midden site with shell, lithics, groundstone, and a fragmented human bone. A road cuts through the site.
3. P-41-000167, the Green Oaks Ranch House, consists of a Greek Revival-style residence that served as headquarters for the California dairy farm, Steele Brothers. It was listed on the NRHP in 1976.
4. P-41-000509 (CA-SMA-361/H), the Cascade Ranch, consists of a segment of the former Steele Dairy Ranch, which was built on top of a prehistoric lithic and shell scatter. Historic-era features include the Humphrey House, a guest house, a barn, two sheds, a kennel, a pool depression, and a ceramic scatter, and two gravestones. Cascade Ranch used to house members of the Ohlone Indian Tribe.
5. P-41-002166 consists of an isolate chert flake.
6. P-41-002167 consists of a small shell and lithic concentration.

Three sites are within the boundary of Año Nuevo State Reserve:

1. P-41-000153 (CA-SMA-152) consists of a heavily disturbed area near the mouth of Año Nuevo Creek.
2. P-41-000241 (CA-SMA-245) is a prehistoric lithic concentration that was previously disturbed by cultivation, grazing, pedestrian traffic, and rodents. This resource site has been cleared of vegetation for a new access road turnout and covered by road ballast and asphalt concrete (A.C.) pavement.
3. P-41-000242 (CA-SMA-246) consists of light surface scatter of chert flakes and chert fragments on a flat area in a shallow gully on the west bank of Año Nuevo Creek. This resource has been previously disturbed by grazing, and currently disturbed by animal trails. The site has been cleared of vegetation and covered with introduced fill and A.C. pavement.

Of the nine resources located within or adjacent to the proposed project area, two have potential to be directly impacted by proposed project activities (P-41-002166 and P-41-000241).

Three additional sites are noted in proximity to the proposed project area:

- P-41-000100 (CA-SMA-97) is a prehistoric midden site. Lithic scatter occupies the entire field around the midden site.
- P-41-000170 (CA-SMA-170H), Pigeon Point Lighthouse, was listed in the NRHP in 1979.
- P-44-000406 (CA-SCR-334H) consists of segments of the original 1933 Highway 1 (Hwy 1) alignment.

A total of 31 reports have been conducted within a 0.25-mile of the proposed project area. Four of the 31 reports researched portions of the Cascade Ranch. Two of the reports researched Franklin Point. Two focused on cultural resources within Año Nuevo State Reserve. Two reports concentrated on the Pigeon Point public access improvements. Nine of the reports focused on portions of Hwy 1 and historic resources along the route, and were performed for the California Department of Transportation (Caltrans). Six reports consisted of cultural resources evaluations or archaeological reconnaissance of privately owned. The remaining seven reports were overviews and studies of the region.

A letter was sent to the Native American Heritage Commission (NAHC) on December 12, 2012, requesting any areas of concern within the study area that may be listed in the NAHC's Sacred Land File (ICF International 2012). At the date of publication of the document, no response from NAHC had been received.

Archaeological and Architectural Surveys

On September 6, 2012, an archaeological field survey was conducted of the proposed new anchor sites and the surrounding areas. The entire length of the proposed underground boring alignment was also surveyed (ICF International 2012).

May 22, 2013 a survey for cultural material was conducted of the proposed project extension area's existing poles, guy wire sites, and surrounding areas (ICF International 2013).

In both cases, the ground visibility was very limited at about 25%. No archaeological resources were observed within the proposed project area.

On July 3, 2013, Google Earth Pro was utilized to review the alignment of the proposed new anchor sites for the potential to visually affect historic built resources. The historic Green Oaks Ranch, Cascade Ranch, Pigeon Point Lighthouse, and Hwy 1 were reviewed in relationship to the existing poles (ICF International 2013).

Prehistory

Humans occupied the San Mateo County area as early as 8,000 B.C. during the PaleoIndian-Millingstone Periods (8,000–3,500 BC). The PaleoIndian-Millingstone Periods were characterized by eccentric crescent, bi-pointed, leaf-shaped bi-faces; unifaces and cobble and core tools; and milling slabs and handstones. Lithic materials are composed of basalt and quartzite.

Ethnography

At the time of European contact, the Native Americans who occupied the San Mateo region was known as Costanoans ("people of the coast") or Ohlone. The Ohlone were hunter-gatherers who relied heavily on acorns and various seafood for food resources, as well as other resources including plant materials, land and sea mammals, waterfowl, reptiles, and insects. The Ohlone made a range of lithic and bone tools as well as balsas (small watercraft constructed of reeds), bows and arrows, cordage, sea otter blankets, and twined basketry. The Ohlone population significantly declined in the early 1830s as a result of diseases and a declining birth rate. Descendants of the Ohlone still occupy the San Mateo region.

Historic Context

Spanish explorers including Sebastian Vizcaino, Gaspar de Portola, Fernando de Rivera y Mocada, and Juan Bautista de Anza visited the San Mateo County region during the seventeenth and eighteenth centuries. The first European settlements in the San Mateo region occurred in the late 1770s when a series of mission ranches were developed on the Peninsula. After Mexico won independence in 1821, several ranchos were established in the area.

In the absence of railroad development, transportation of goods was inefficient and undependable since economic activity was limited along the coasts. In 1864, the San Francisco and San Jose Road Company completed the alignment through San Mateo, which was later acquired by the Central Pacific (formerly Southern Pacific Railroad Company). Development of the railroad attracted housing and recreation in the area.

In the mid- to late nineteenth century, livestock and dairy farms flourished along the coast and south of San Francisco. During the second half of the nineteenth century, maritime traffic increased along the coast. In order to improve safety with respect to navigation dangers, lighthouses were provided, including the Pigeon Point Lighthouse, located within proximity to the project area.

Año Nuevo State Park

Prehistoric resources exist within the coastal and inland areas of the Año Nuevo State Park, including small-scale refuse scatters to a prehistoric village site (site SMA-196) in the Quiroste

Valley. Historic buildings, structures, objects, and sites are also located in both coastal and inland areas of Año Nuevo State Park. During the mid- to late nineteenth century, farming activities occurred on Año Nuevo Island. Two historical ranch complexes, the coastal Dickerman-Steele Ranch and Cascade Ranch, are located in Año Nuevo State Park. Other adaptive reuse of historic buildings in the state park include a park visitor center, interpretive programs, and park staff residences.

Paleontological Resources

The proposed project area is characterized by a series of variously uplifted coastal marine terraces that form narrow beaches and locally high cliffs, bluffs, and promontories. Small westerly draining coastal streams cut through the marine terraces to form narrow ravines/gulches whose outlets lead to wider beaches and/or brackish water lagoons. These marine terraces consist of older cliff-forming sedimentary bedrock (e.g., sandstone, siltstone, and mudstone) capped by a relatively thin layer (i.e., no more than 30 feet) of Pleistocene-age beach deposits (i.e., loose layers of sand and gravel) (USGS 1993). The Purisima Formation of the Pliocene and upper-Miocene is the main bedrock formation underlying the proposed project alignment, with localized occurrences of other bedrock formations such as the Santa Cruz Mudstone and the Monterey Formation which are similar in age (USGS 1993; USGS 2007). The Cretaceous-age Pigeon Point Formation also occurs east of the lighthouse.

Invertebrate fossils generally representing relict marine environments, such as mollusks, diatoms and benthic forams have been discovered on marine terraces, beach dunes, and within the exposed bluffs in the vicinity of the proposed project. There are approximately 25 invertebrate fossil localities documented within the Año Nuevo and Franklin Point USGS 7.5-foot quadrangles, including several locations within Año Nuevo State Park (primarily on the shoreline and within sand dunes) and some isolated locations along the cliffs south of Franklin Point and on the north side of Gazos Creek (USGS 2007, USGS 2003). Due to the general nature of the bedrock as having been formed in a marine environment, certain layers of rock within these formations are anywhere from moderately to abundantly fossiliferous (Weber and Allwadt 2001, USGS 2007). Although the molluscan fossil assemblages have provided valuable information on formation ages (e.g., carbon dating), correlations to other formations in the region, and their past depositional environments, such invertebrate fossils are not uncommon, have already yielded useful information, and would not generally be regarded as rare or unique in the scientific community.

Marine vertebrate fossils are also found in the Purisima and similar formations but are more uncommon. One locality at Pomponio State Beach, a short drive north of Pescadero, has yielded a significant number of marine mammal and fish fossil specimens (UCMP 2014). Other locations nearby where similar vertebrate fossils were found include Franklin Point, San Gregorio Beach,

and Moss Beach. The San Mateo County General Plan also indicates that "[p]etrified whalebone occurs in sedimentary rocks along beaches or tidal areas and has been identified at Año Nuevo Beach" (County of San Mateo 1986). The University of California Museum of Paleontology database does not list any known vertebrate fossil localities within the proposed project alignment, but the information available indicates the Purisima Formation to have a high potential to yield both vertebrate and invertebrate fossils. Although invertebrate fossils are likely to be common species from rock layers already known to be fossil-producing, the formation should be regarded a potentially yielding significant vertebrate fossils even in locations where none are currently known to exist, since there is evidence that the Purisima has yielded vertebrate fossils outside the proposed projects area.

The marine terrace formation overlying the Purisima Formation is Pleistocene in age and sedimentary in nature, so it does have the potential to yield fossils. However, the potential for it to be fossil-yielding is low because a) the rock unit is poorly represented in museum specimen databases, and b) the formation reflects a high-energy depositional environment in which wave action and littoral transport is likely to have reworked or broken down fossils beyond recognition.

5.5.3 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measures (APMs) into the design and implementation of the proposed project.

APM-CUL-1

- If buried cultural resources, such as chipped or ground stone, historic debris, building foundation, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate measures in consultation with the California Public Utilities Commission (CPUC), State Historic Preservation Officer, and other appropriate agencies.
- In the event that fossil remains are encountered, either by the cultural resources monitor or by construction personnel, qualified paleontological specialists will be contacted. Construction within 100 feet of the find in non-urban areas and 50 feet in urban areas will be temporarily halted or diverted until a qualified vertebrate paleontologist examines the discovery.

5.5.4 Environmental Impacts and Mitigation

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? Less than Significant.

Under CEQA, for impacts to historic properties to be considered substantial, the qualities of the resource must be materially altered to the extent that the resource is no longer considered historic.

No direct impacts would occur to the existing historical properties because the proposed project would not materially alter the existing historic structures or any contributing features associated with Green Oaks Ranch, Cascade Ranch, Pigeon Point Lighthouse, or the potentially historic segment of Hwy 1. The existing poles and corresponding utility lines are not considered a contributing feature to any of the historic properties in proximity to the proposed project. The existing utility lines were likely installed after each property's period of significance; therefore, no direct impacts would occur to these historic built resources.

Visual changes within the viewshed of a historic property may result in an indirect impact to the visual setting that contributes to the historic property. The proposed project would generally use existing poles or in kind replacement poles. New permanent components would include antennae, pole extenders, and associated equipment on five existing utility poles, guy wires and anchors on up to 70 existing utility poles, and fiber-optic cable. The antennae, pole extenders, and associated equipment proposed on five existing utility poles would not alter the current view shed of any of these properties. The addition of the guy wires, anchors, and fiber-optic cable would be considered an incremental change, but would not materially alter the current viewshed of these properties, because poles supporting utility lines are already within the viewshed of these historic properties. Therefore, indirect impacts to historic resources would be less than significant.

Significance: Less than Significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? Less than Significant.

The Northwest Information Center background records search identified previously recorded cultural resources within the proposed project area. Of the nine resources located within or adjacent to the proposed project area, two have potential to be directly impacted by proposed project activities.

P-41-002166, an isolate chert flake, is located within the Año Nuevo State Reserve Area, east along the right-of-way of Hwy 1, where proposed undergrounding of the alignment would occur. No significant impact to this recorded site would result since the resource is not considered a historical resource under CEQA and does not qualify for CRHR.

P-41-000241, a prehistoric lithic concentration located within the Año Nuevo State Reserve, has been covered by road ballast and pavement in an area that could be used by construction equipment associated with the proposed project. This resource has been previously disturbed (grazing, road grading, road construction) and would not be impacted from its current condition.

Best available information indicates that, it is unlikely that significant archaeological resources would be encountered during surface or ground-disturbing activities. With integration of APM-CUL-1 into the proposed project design, if an archeological resource is inadvertently discovered, the Applicant would stop working within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate measures in consultation with the CPUC, State Historic Preservation Officer, and other appropriate agencies. Therefore, impacts to unanticipated cultural resources would be less than significant.

Significance: Less than Significant.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less than Significant.

As noted in the setting, vertebrate and invertebrate fossils have been found in the vicinity of the proposed project alignment, but not within the alignment itself. Although no fossils are known to exist within the footprint of the proposed project, undiscovered fossils may be present within subsurface geologic units, and could possibly be exposed at the surface in outcrop and/or fresh stream cuts. Because the ground surface along the proposed project alignment is generally flat and in most places either vegetated or previously disturbed, there are no large rock outcrops or stream cuts present within active work areas. The potential for impacts to undiscovered paleontological resources would therefore be limited to areas requiring excavation, namely underground installation activities.

Underground installation activities would be located within the shoulder of Hwy 1 and would occur within the shoulder/road-bed, which would most likely consist of artificial fill material devoid of fossils. However, because the presence and extent of artificial fill underlying Hwy 1 cannot be confirmed, the possibility that native geologic materials would be encountered must be considered. The geology mapped along the horizontal

directional drilling segment of the proposed project consists of marine terrace deposits (USGS 1993), which has a low potential to yield significant fossils. Due to the likely presence of road fills and the depth of marine terrace deposits (approximately 30 feet), excavations (which would be approximately 5 feet deep) would not affect the Purisima Formation which underlies the terrace deposits.

In addition, a small 20-foot trench would be excavated in an area underlain by bedrock of the Pigeon Point Formation. The Pigeon Point Formation, being sedimentary in origin, could potentially yield fossils, but like the marine terrace deposits, the potential is low. This is because there have been no recorded fossil localities from the formation within the study area. Trench excavations would be limited in depth (about 2 feet) and extent and would be limited to the surface soil horizons. For this reason the trench excavation would not likely affect the underlying bedrock and impacts to paleontological resources, if present.

Because the only excavation associated with the proposed project would occur within units of low paleontological potential, the unanticipated discovery measures that are integrated into the project design (APM-CUL-1) are sufficient to ensure potential impacts to paleontological resources would be less than significant. APM-CUL-1 states that in the event that fossil remains are encountered, either by the cultural resources monitor or by construction personnel, qualified paleontological specialists will be contacted and construction within 100 feet of the find will be temporarily halted or diverted until a qualified vertebrate paleontologist examines the discovery.

Significance: Less than Significant.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries? Less than Significant.

No human remains are known to be located within the proposed project area or on adjacent lands. Therefore, no impacts would be expected. However, ground-disturbing construction activities could result in the inadvertent discovery of human remains. In the situation where human remains are discovered, the Applicant would stop work immediately and treat the remains per Section 7050.5 of the Health and Safety Code, and CCR Section 15064.5(e). Compliance with the law would ensure that unanticipated effects would be less than significant.

Significance: Less than Significant.

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5.6 Geology and Soils

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

5.6.1 Regulatory Setting

Federal

There are no federal regulations regarding geology and soils that apply to the proposed project areas.

State

California Public Utilities Commission General Order 95

The Applicant is required to comply with California Public Utilities Commission (CPUC) General Order 95, which institutes requirements for overhead line design, construction, and maintenance (CPUC 2012). Section IV of the order covers mechanical strength requirements for each class of line, either alone or involved in crossings, conflicts, or joint use of poles. The order specifies safety factors for communication and supply line construction that are the minimum allowable ratios of ultimate strengths of materials to the maximum working stresses. The proposed project would add communication lines to existing pole structures; General Order 95 specifies that any entity planning the addition of facilities that materially increase vertical, transverse, or longitudinal loading on a structure shall perform a loading calculation to ensure that the addition of the facilities will not reduce the safety factors below the values specified. The order also specifies strength requirements for construction materials, and minimum wood pole setting depths for various site conditions. Section VIII of the order includes detailed construction requirements specific to communication lines.

Local

The San Mateo County General Plan (County of San Mateo 1986) has outlined the following policies related to Geology and Geotechnical Hazards that are relevant to the proposed project:

15.20 Review Criteria for Locating Development in Geotechnical Hazard Areas

a. Avoid the siting of structures in areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring properties.

b. Wherever possible, avoid construction in steeply sloping areas (generally above 30%).

15.21 Requirement for Detailed Geotechnical Investigations

a. In order to more precisely define the scope of the geotechnical hazards, the appropriate locations for structures on a specific site, and suitable mitigation measures, require an adequate geotechnical investigation for public or private development proposals located: (1) in an Alquist-Priolo Special Studies Zone, or (2) in any other area of the County where an investigation is deemed necessary by the County Department of Public Works.

Local Coastal Program

The San Mateo County Local Coastal Program (County of San Mateo 2013) defines hazardous areas as fault zones and land subject to dangers from liquefaction and other severe seismic impacts, unstable slopes, landslides, coastal cliff instability, flooding, tsunamis, fire, and steep slopes (over 30%). Although the proposed project crosses some hazardous areas as defined in the Local Coastal Program (e.g., fault zone), there are no policies specifically relevant to the proposed project discussed in the hazards component because the proposed project does not require grading.

5.6.2 Environmental Setting

Topography

The proposed project is located in a region with locally steep topography. The proposed project alignment lies on a coastal marine terrace with cliffs, bluffs, and promontories marking the coastal side of the terrace, and moderately-sloped hillsides to the north and east that mark the base of the Pacific Coast Ranges. The mountains rise to approximately 2,400 feet to the north and east sides of the proposed project area. To the south and west side of the proposed project area, cliffs as high as 80 feet rise from the Pacific Ocean or small narrow beaches. The existing utility alignment on/in which the proposed project would be completed is along a relatively level stretch of Highway 1 (Hwy 1). Most of the topography in the proposed project area is relatively flat, with the exception of the northernmost 0.75 mile of the proposed project alignment, which gently rises from elevations between 40 and 80 feet to an elevation of approximately 240 feet (ICF 2013).

Geology and Soils

The two main faults present in San Mateo County are the San Andreas Fault and the San Gregorio Fault zones. Both faults result from movement of the Pacific tectonic plate against the North American tectonic plate and are considered fault “zones” because each of the main faults are accompanied by additional faults running parallel and in close proximity to the main fault. The San Andreas Fault Zone extends across the Pacific Coast Ranges from the proposed project area, approximately 15 miles to the east (CGS 1982a, CGS 1982b, USGS 1993). The San Gregorio Fault and associated minor faults cross the proposed project alignment. The two main faults of the San Gregorio Fault Zone include the Coastways Fault and the Frijoles Fault, and cross Hwy 1 approximately 0.4 and 3.2 miles north of the San Mateo County line, respectively. The current average rate of movement along the San Gregorio Fault Zone is estimated to be 0.25 inch (6 millimeters) per year (Weber and Allwardt 2001).

Soils in the proposed project area generally consist of the Lockwood and Watsonville series of loams and sandy loams, with occasional clay and shaly loams and loamy sands on the surface (Soil Survey Staff 2013). A dense claypan subsoil is underlain by marine sediments. Lockwood and Watsonville series soils are moderately well drained to imperfectly drained and present on slopes ranging from level ground to 40% (Wagner and Nelson 1961). Smaller areas of Tierra–Colma and Lobitos–Gazos soils are present, particularly along the northern portion of the alignment. The Tierra–Colma series soils are moderately and well drained with loamy subsurfaces and very slowly to moderately permeable subsoils on gently sloping, dissected marine terraces, composed of weathered products of sedimentary rocks or alluvium from them. The Lobitos–Gazos series soils are sloping to very steep, well- drained sandy loam to clay loam soils on sedimentary rocks (Wagner and Nelson 1961).

Seismicity

Seismicity is defined as the geographic and historical distribution of earthquakes or earthquake activity. The primary tool that seismologists use to evaluate ground-shaking hazard and characterize statewide earthquake risks is a probabilistic seismic hazard assessment (PSHA). The PSHA for the State of California takes into consideration the range of possible earthquake sources and estimates their characteristic magnitudes to generate a probability map for ground-shaking.

The proposed project alignment crosses the San Gregorio Fault. The San Gregorio Fault Zone along the San Francisco Peninsula coast has a 6% probability of a 6.7 or greater magnitude earthquake in the next 30 years. The San Francisco Bay Region has a 63% probability for one or more magnitude 6.7 or greater earthquakes from 2007 to 2036 (USGS 2008). Evaluation of the proposed project area using the California Geological Survey's interactive Probabilistic Seismic Hazards Mapping Ground Motion webpage (CGS 2011) indicates a peak ground acceleration of 0.47 for firm rock and 0.49 for alluvial material. Spectral acceleration for short (0.2-second) periods is calculated as 1.07 for firm rock and 1.15 for alluvial material. These calculations indicate a moderate earthquake threat relative to the rest of California (USGS 2011). The perceived shaking resulting from accelerations calculated for the proposed project area are considered "severe" to "violent," and damage can be expected to be moderate to heavy.

Surface Rupture

Surface rupture occurs when movement by a fault deep within the Earth causes breaks in the Earth's surface (CGS 2013). The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. Any significant movement occur along the San Gregorio Fault Zone, should it occur, could be expected to cause surface rupture may be

expected to occur in locations where segments of the San Gregorio Fault Zone (e.g., the Frijoles and Coastways faults) cross the proposed project alignment (Weber and Allwardt 2001).

Ground Shaking

Ground shaking, a general term referring to all aspects of motion of the earth's surface resulting from an earthquake, is normally the major cause of damage in seismic events. Based on historical seismic activity and fault and seismic hazards mapping, San Mateo County is considered to have relatively high potential for seismic activity (County of San Mateo 1986).

Liquefaction

Soil liquefaction can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils and non-plastic silts that are saturated by relatively shallow groundwater (generally less than 50 feet) are susceptible to liquefaction. Liquefaction causes soil to lose strength and "liquefy," triggering structural distress or failure due to the dynamic settlement of the ground or a loss of strength in the soils underneath structures.

The San Mateo County Hazard Mitigation Maps show areas of highly generalized liquefaction potential based on geologic materials in the region (County of San Mateo 2013). Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is deep. Should an earthquake occur during heavy precipitation or shortly thereafter, liquefaction could potentially occur in alluvial fans and sandy soils which cross the proposed project alignment.

Slope Stability

Slope failures include many phenomena that involve the downslope displacement and movement of material, triggered either by gravity or seismic (earthquake) forces. Exposed rock slopes may experience rockfalls, rockslides, or rock avalanches, while soil slopes may experience soil slumps, rapid debris flows, and deep-seated rotational slides. Slope stability can depend on a number of complex variables, including the geology, structure, and amount of groundwater, as well as external processes such as climate, topography, slope geometry, and human activity. The factors that contribute to slope movements include those that decrease the resistance in the slope materials and those that increase the stresses on the slope. Slope failure can occur on slopes of 15% or less, but the probability is greater on steeper slopes that exhibit old landslide features such as scarps, slanted vegetation, and transverse ridges.

According to previous investigations, the area associated with the proposed project alignment is adjacent to areas of steep topography (Weber and Allwardt 2001). Landslide debris from slump-

style failures associated with fault-weakened rock and the presence of Ano Nuevo Creek is mapped approximately 2,000 feet to the west of the alignment (Weber and Allwardt 2001). The mapped slope movements are located on the eastern side of HWY 1 where hills and steeper slopes are present (Weber and Allwardt 2001). Nevertheless, the proposed project alignment within the Ano Nuevo State Park alignment does cross some alluvial fans and areas of fault-weakened rock that could potentially liquefy or slump during an earthquake.

Differential Settlement

Differential settlement, the uneven lowering of the ground surface, represents only minor hazards in San Mateo County (County of San Mateo 1986). Subsidence and differential settlement usually occurs when structures are built on poor foundation materials, and different types of support systems. The variability of thickness and composition within fill materials present the potential for variability in strength and differential settlement upon loading.

5.6.3 Applicant Proposed Measures

There are no applicant proposed measures associated with geology and soils.

5.6.4 Environmental Impacts and Mitigation

a) Would the project 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. Less than Significant.

ii) Strong seismic ground shaking? Less than Significant.

iii) Seismic-related ground failure, including liquefaction? Less than Significant.

The proposed project would not affect existing levels of public exposure to fault rupture, seismic ground shaking, or seismic-related ground failure such as liquefaction because it does not propose structures for human occupancy and because aerial installation of the fiber line would be co-located with existing electric and telecommunication infrastructure. The aboveground component to be added to the existing utility corridor would be limited to the fiber-optic line itself; pole extenders and antennae (in five locations); as well as anchors and approximately 14 replacement poles, where required to support additional load. Although the southern portion of the proposed project is located within an Alquist–Priolo Special Studies Zone (CGS 1982a, 1982b) associated with the San Gregorio Fault Zone,

and even though other locations along the right-of-way (ROW) could be subject to strong ground shaking or other earthquake-induced hazards such as liquefaction, no element of the proposed project would for any reason increase the likelihood, magnitude, or extent of existing geologic hazards present within the proposed project alignment. In the event of a major earthquake on the San Gregorio Fault, and in accordance with standard procedure, utility companies would send crews to inspect the lines and repair any damage detected.

All proposed project components would be constructed in accordance with industry standard practice and applicable measures from CPUC General Order 95. The provisions in CPUC General Order 95 (CPUC 2012) require that certain strength and safety standards be maintained for overhead utility and communications lines installed on joint-use poles. Among other requirements, CPUC General Order 95 requires that lines or parts thereof be replaced or reinforced when safety factors have been reduced below certain specified minimums. The reason the proposed project includes additional anchors and the potential replacement of up to 14 existing poles is to comply with these requirements, and to support increased loads on existing poles where necessary. Therefore, the proposed project would either maintain or (more likely) increase the stability of the overhead utility system compared to existing conditions. Underground components of the proposed project, if damaged, would not expose people or aboveground structures to additional geologic or seismic risks.

For these reasons, the impact of the proposed project on the exposure of people or structures to seismic hazards would be less than significant.

Significance: Less than Significant.

iv) Landslides? Less than Significant.

Although the region of the proposed project area consists of steep mountain ranges and hills, the topography along the proposed project alignment is relatively flat and gently sloping. The portion of the alignment that passes close to the Ano Nuevo visitor center and along New Year's Creek Road is located over 2,000 feet from the closest mapped landslide and thus is not in an area with a significant slope stability problem. However, the general nature of the area—being underlain by fault-weakened rock and within a mapped fault zone—means that there is some potential for sloped areas to experience one form of failure or another due to an earthquake, flood-related creek scour, or other trigger mechanism. The proposed project components, however, are not located on steep land or within the Ano Nuevo Creek bed. The gully area near the visitor's center through which the proposed alignment would cross has moderate slopes, but is heavily vegetated, which reduces the potential for slope failures.

Despite the potential presence of weak rocks and the potential for slope failures (especially during an earthquake) at Ano Nuevo, the proposed project would not result in an increase of landslide hazard for the public or off-site property. No grading or any other substantial excavations are proposed that could reduce the stability of an existing slope. In addition, because the only components to be installed would be aerial components, there are no substantial structures proposed (i.e., poles) that would expose visitors to the park additional risks if they failed or toppled in a landslide. All other aerial components and underground work would be performed on flat areas along the shoulder of Hwy 1. Therefore, since the proposed project would not result in an increased level of landslide risk for the public or off-site property, and for the same reasons described above under criterion a), impacts would be less than significant.

No additional impacts would occur during operations and maintenance.

Significance: Less than Significant.

b) Would the project result in substantial soil erosion or the loss of topsoil? Less than Significant.

As discussed in Section 5.9, Hydrology and Water Quality, construction activities could briefly and locally increase the potential for stormwater runoff to erode exposed soils or temporary soil stockpiles. No grading is proposed, and excavations would be a small fraction of the work area requirements described in Table 4-2 of Chapter 4, Project Description. Excavations would be required for Horizontal Directional Drilling (HDD) entry/exit pits, access vaults, pole replacement, and a 20-foot-long trench. Although construction is expected to last approximately 2 months, construction crews and equipment in any one location would be present only briefly, ranging from 24 to 48 hours (for most aerial installation locations), to possibly several days (for HDD entry/exit areas). The brief and dispersed nature of the construction activities as well as the location of the proposed work areas (outside of creek corridors and lakes/ponds) substantially limits the potential for the proposed project to result in substantial soil erosion or loss of topsoil.

During ground-disturbing activities, the Applicant would implement standard erosion control Best Management Practices (BMPs) including perimeter controls (e.g., straw waddles, hay bales, or silt fences), containment measures (i.e., covering stockpiles), and would restore the site to pre-construction conditions in accordance with APM-HYD-2. In addition, construction work would be temporarily suspended during any significant rain event. Because ground-disturbing activities would generally occur on road fills, compacted earth, or in areas that are otherwise developed or previously disturbed,

standard erosion control BMPs included in the proposed project would be sufficient to prevent substantial erosion or loss of topsoil within active work areas.

Due to the limited nature of ground disturbances and the implementation of standard erosion BMPs, the proposed project would not result in substantial soil erosion or loss of topsoil; therefore, impacts would be less than significant. No additional impacts would occur during operations and maintenance.

Significance: Less than Significant.

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

The southern portion of the proposed project alignment crosses the active San Gregorio Fault and associated minor faults. Local areas in the vicinity of the proposed project area may experience lateral spreading, subsidence, collapse, and/or liquefaction hazards due to the proximity to this fault. As discussed under criterion a), the proposed project does not change the likelihood, magnitude, or extent of existing geologic hazards to people or structures; project components would be constructed in accordance with the CPUC General Order 95; and utility companies would continue to respond to earthquakes and other emergencies using established standard operating procedures. For these reasons, the impact of the proposed project on the exposure of people or structures to unstable soil units would be less than significant.

Significance: Less than Significant.

d) Would the project 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? Less than Significant.

The most prominent soils in the proposed project area are Lockwood–Watsonville clay and loam, Tierra–Colma clay and loam, and Lobitos–Gazos clay and loam. The shrink-swell potential of these soils is variable between 0% and 6%. If the shrink-swell potential is more than 3%, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots (Soil Survey Staff 2013).

No new habitable structures would be built, so expansive soils where present along the alignment would not create substantial risks to life and property. Underground components

would be installed in the shoulder of Hwy 1, which is built on artificial fills that are not expansive. Soil to be backfilled into vault excavation would have to be of suitable quality, non-expansive, and sufficiently compacted, in accordance with standard industry practice. Any of the replacement poles or underground project components that show signs of being affected by expansive soils (e.g., leaning poles, cracked concrete) would be identified and repaired as needed during periodic inspection and maintenance of the proposed project. In no case would the effects of expansive soil create a substantial risk to life and property. Therefore, impacts would be less than significant.

Significance: Less than Significant.

e) Would the project 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? No Impact.

The proposed project would not require the need for the installation and/or use of septic tanks; therefore, no impact could occur.

Significance: No Impact.

5.6.5 References Cited

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5.7 Greenhouse Gas Emissions

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

5.7.1 Regulatory Setting

Federal

Massachusetts vs. EPA

On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the Environmental Protection Agency (EPA) Administrator to determine whether greenhouse gas (GHG) emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The Administrator further found the combined emissions of GHGs—CO2, CH4, N2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act

On December 19, 2007, President Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022
2. Set a target of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020 and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

EPA and NHTSA Joint Final Rule for Vehicle Standards

The EPA, in conjunction with the NHTSA, has adopted regulations to reduce GHG emissions and increase the Corporate Average Fuel Economy (CAFE) standards for new passenger cars and light-trucks (EPA and NHTSA 2010). Under the first round of regulations promulgated in 2010, new passenger cars, light-duty trucks, and medium-duty passenger vehicles must meet an estimated combined average emissions level of 250 grams of CO_2 per mile in model year 2016, equivalent to 35.5 mpg if the automotive industry were to meet this CO_2 level through fuel economy improvements alone. The CAFE standards for passenger cars and light trucks will be phased in between 2012 and 2016, with the final standards equivalent to 37.8 mpg for passenger cars and 28.8 mpg for light trucks, resulting in an estimated combined average of 34.1 mpg.

In 2011, the EPA and NHTSA approved the first-ever program to reduce GHG emissions and increase fuel efficiency for medium- and heavy-duty vehicles (EPA and NHTSA 2011). Effective November 14, 2011, the CO_2 emissions and fuel efficiency standards of this regulation apply to model year 2014–2018 combination tractors (i.e., semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles including transit and school buses. This regulation covers vehicles with a gross vehicle weight rating of 8,500 pounds or greater; medium-duty passenger vehicles are covered by the previous regulation for passenger cars and light-duty trucks. In addition, the EPA has adopted standards to control HFC leakage from air conditioning systems in combination tractors and heavy-duty pickup trucks and vans as well as CH_4 and N_2O

standards for heavy-duty engines, pickup trucks, and vans. In August 2012, the EPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (EPA and NHTSA 2012). These standards will reduce motor vehicle GHG emissions to 163 grams of CO_2 per mile, which is equivalent to 54.5 mpg if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025. A portion of these improvements, however, will likely be made through improvements in air conditioning leakage and through use of alternative refrigerants, which would not contribute to fuel economy. The first phase of the CAFE standards, for model year 2017–2021, are projected to require, on an average industry fleet-wide basis, a range from 40.3 to 41.0 mpg in model year 2021. The second phase of the CAFE program, for model years 2022–2025, includes standards, which are not final due to the statutory requirement that NHTSA set average fuel economy standards not more than five model years at a time, projected to require, on an average industry fleet-wide basis, a range from 48.7 to 49.7 mpg in model year 2025. The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles
- Incentives for hybrid technologies for large pickups and for other technologies that achieve high fuel economy levels on large pickups
- Incentives for natural gas vehicles
- Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standards test procedures.

State

Assembly Bill (AB) 1493

In a response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 (Pavley) was enacted on July 22, 2002. AB 1493 required the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

Before these regulations could go into effect, the EPA had to grant California a waiver under the federal Clean Air Act, which ordinarily preempts state regulation of motor vehicle emission standards. The waiver was granted by Lisa Jackson, the EPA Administrator, on June 30, 2009. On March 29, 2010, the CARB Executive Officer approved revisions to the motor vehicle GHG standards to harmonize the state program with the national program for 2012–2016 model years (see "EPA and NHTSA Joint Final Rule for Vehicle Standards" discussed earlier). The revised regulations became effective on April 1, 2010.

Executive Order S-3-05

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The executive order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80% below 1990 levels by 2050. The California Environmental Protection Agency (CalEPA) secretary is required to coordinate efforts of various agencies to collectively and efficiently reduce GHGs. The Climate Action Team (CAT) is responsible for implementing global warming emissions reduction programs. Representatives from several state agencies comprise the CAT. Under the executive order, the CalEPA secretary is directed to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The CAT fulfilled its initial report requirements through the 2006 *Climate Action Team Report to Governor Schwarzenegger and the Legislature* (CAT 2006).

The 2009 *Climate Action Team Biennial Report* (CAT 2010a), published in April 2010, expands on the policy outlined in the 2006 assessment. The 2009 report provides new information and scientific findings regarding the development of new climate and sea level projections using new information and tools that have recently become available and evaluates climate change within the context of broader social changes, such as land use changes and demographics. The 2009 report also identifies the need for additional research in several different aspects that affect climate change in order to support effective climate change strategies. The aspects of climate change determined to require future research include vehicle and fuel technologies, land use and smart growth, electricity and natural gas, energy efficiency, renewable energy and reduced carbon energy sources, low GHG technologies for other sectors, carbon sequestration, terrestrial sequestration, geologic sequestration, economic impacts and considerations, social science, and environmental justice.

Subsequently, the 2010 *Climate Action Team Report to Governor Schwarzenegger and the California Legislature* (CAT 2010b) reviews past Climate Action Milestones including voluntary reporting programs, GHG standards for passenger vehicles, the Low Carbon Fuel Standard

(LCFS), a statewide renewable energy standard, and the cap-and-trade program. Additionally, the 2010 report includes a cataloguing of recent research and ongoing projects; mitigation and adaptation strategies identified by sector (e.g., agriculture, biodiversity, electricity, and natural gas); actions that can be taken at the regional, national, and international levels to mitigate the adverse effects of climate change; and today's outlook on future conditions. The 2010 report also focuses on case studies involving collaborative efforts among multiple agencies on research projects related to climate change and policy development.

AB 32

In furtherance of the goals established in Executive Order S-3-05, the legislature enacted AB 32 (Núñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. The GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020.

CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions. This program will be used to monitor and enforce compliance with the established standards. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

The first action under AB 32 resulted in the adoption of a report listing early action GHG emission reduction measures on June 21, 2007. The early actions include three specific GHG control rules. On October 25, 2007, CARB approved an additional six early action GHG reduction measures under AB 32. The three original early-action regulations meeting the narrow legal definition of "discrete early action GHG reduction measures" include:

1. A low-carbon fuel standard to reduce the "carbon intensity" of California fuels
2. Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of "do-it-yourself" automotive refrigerants
3. Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The additional six early-action regulations, which were also considered "discrete early action GHG reduction measures," consist of:

1. Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology
2. Reduction of auxiliary engine emissions of docked ships by requiring port electrification
3. Reduction of PFCs from the semiconductor industry
4. Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products)
5. Requirements that all tune-up, smog check, and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency
6. Restriction on the use of SF6 from non-electricity sectors if viable alternatives are available.

As required under AB 32, on December 6, 2007, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 million metric tons of carbon dioxide equivalent (MMT CO_2E). In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of GHGs for large facilities that account for 94% of GHG emissions from industrial and commercial stationary sources in California. About 800 separate sources fall under the new reporting rules and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and other industrial sources that emit CO_2 in excess of specified thresholds.

On December 11, 2008, CARB approved the Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan; CARB 2008) to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

The key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewables energy mix of 33%

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the LCFS
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

SB X1 2

On April 12, 2011, Governor Brown signed SB X1 2 in the First Extraordinary Session, which would expand the Renewable Portfolio Standard (RPS) by establishing a goal of 20% of the total electricity sold to retail customers in California per year, by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current and that meets other specified requirements with respect to its location. In addition to the retail sellers covered by SB 107, SB X1 2 adds local publicly owned electric utilities to the RPS. By January 1, 2012, the California Public Utilities Commission (CPUC) is required to establish the quantity of electricity products from eligible renewable energy resources to be procured by retail sellers in order to achieve targets of 20% by December 31, 2013; 25% by December 31, 2016; and 33% by December 31, 2020. The statute also requires that the governing boards for local publicly owned electric utilities establish the same targets, and the governing boards would be responsible for ensuring compliance with these targets. The CPUC will be responsible for enforcement of the RPS for retail sellers, while the California Energy Commission and CARB will enforce the requirements for local publicly owned electric utilities.

Local

San Mateo County Climate Action Plan

San Mateo County adopted the San Mateo County Energy Efficiency Climate Action Plan (CAP) in June 2013. The CAP documents the County's long-term strategy for addressing the adverse effects of climate change. The CAP outlines various mechanisms and measures for reducing

GHG emissions at the County level, including those specific to water conservation, waste reduction, land use, and adaptation strategies to fulfill the obligations delineated in AB 32. The CAP provides a GHG inventory of existing community emissions for the 2005 baseline year. Community-wide GHG emissions were forecast for 2020 and 2035 using 2005 energy consumption rates, demographic and economic projections from the Association of Bay Area Governments, and estimated growth in off-road equipment and vehicle-miles travelled. This forecast was adjusted to include GHG reductions that will occur as a result of state and federal policy. The County's reduction goal is a 17% reduction below baseline emissions by 2020. This exceeds the statewide AB 32 target of a 15% reduction below baseline emissions by 2020 (County of San Mateo 2013).

BAAQMD Guidelines

The Bay Area Air Quality Management District (BAAQMD) Guidelines provide guidance for Bay Area project proponents and the public for determining whether, based on substantial evidence, a project may have a significant effect on the environment under the California Public Resources Code, Section 21082.2.

The 2010 BAAQMD Guidelines include thresholds of significance for operation-related GHG emissions.[1] For land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy or annual emissions less than 1,100 metric tons CO_2E per year or an emission rate of 4.6 metric tons CO_2E per service population (residents plus employees) per year. If annual emissions of operation-related GHGs exceed these threshold levels, the proposed project would result in a cumulatively significant impact to global climate change. The BAAQMD

[1] The BAAQMD's adoption of revised thresholds of significance was challenged by the California Building Industry Association (*California Building Industry Association v. Bay Area Air Quality Management District* (Alameda County Superior Court, 2012); no. RG10548693). A petition for a writ of mandate was filed on November 29, 2010. On January 9, 2012, the Alameda County Superior Court concluded that the BAAQMD's adoption of the thresholds is a project under California Environmental Quality Act (CEQA). The BAAQMD appealed the Superior Court's decision. The Court of Appeal of the State of California, First Appellate District, reversed the Superior Court's decision and required the court to vacate its writ of mandate *California Building Industry Association v. Bay Area Air Quality Management District*,) 218 Cal.App.4th 1171 (2013). Further, the Court of Appeal reviewed several thresholds that had been challenged by the California Building Industry Association and found the basis for these thresholds to be acceptable. The Court of Appeal's decision has been appealed to the California Supreme Court, which granted limited review to the following issue: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project? As of this writing, no further findings or rulings have been made, and the issue is currently pending. Section 15064.7(c) of the CEQA Guidelines provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts.…" Accordingly, BAAQMD's thresholds are documented by substantial evidence and appropriate for evaluating the significance of the emissions associated with the proposed project.

Guidelines do not recommend a GHG threshold for construction emissions, but they do recommend that construction GHG emissions be quantified and disclosed.

5.7.2 Environmental Setting

Climate change refers to any substantial change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer). Gases that trap heat in the atmosphere are often called GHGs. The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. This "trapping" of the long-wave (thermal) radiation emitted back towards the Earth is the underlying process of the greenhouse effect. Principal GHGs include CO_2, CH_4, N_2O, ozone (O_3), and water vapor (H_2O). Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely byproducts of fossil fuel combustion, whereas CH_4 results mostly from off-gassing associated with agricultural practices and landfills. Man-made GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, PFCs, SF_6 and nitrogen trifluoride (NF_3), which are associated with certain industrial products and processes (CAT 2006).

The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Without it, the temperature of the Earth would be about 0° Fahrenheit (°F) (-18° Celsius (°C) instead of its present 57°F (14°C). Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect (NOAA 2009).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its "global warming potential" (GWP). GWP varies among GHGs; for example, the GWP of CH_4 is 21, and the GWP of N_2O is 310. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2E).[2]

According to CARB, some of the potential impacts in California of global warming may include loss in snowpack, sea-level rise, more extreme heat days per year, more high-O_3 days, more large forest fires, and more drought years (CARB 2006). Several recent studies have attempted to

[2] The CO_2 equivalent for a gas is derived by multiplying the mass of the gas by the associated GWP, such that $MTCO_2E$ = (metric tons of a GHG) x (GWP of the GHG). For example, the GWP for CH_4 is 21. This means that emissions of 1 metric ton of methane are equivalent to emissions of 21 metric tons of CO_2.

explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national levels to evaluate climatic impacts, but far less information is available on regional and local impacts.

Effects of Climate Change

The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2°C per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming would occur, which would induce further changes in the global climate system during the current century. Changes to the global climate system and ecosystems and to California would include, but would not be limited to, the following:

- The loss of sea ice and mountain snowpack resulting in higher sea levels and higher sea-surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007);
- A rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets (IPCC 2007);
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007);
- A decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 70% to as much as 90% over the next 100 years (CAT 2006);
- An increase in the number of days conducive to O3 formation by 25% to 85% (depending on the future temperature scenario) in high-O3 areas of Los Angeles and the San Joaquin Valley by the end of the 21st century (CAT 2006); or
- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level (CAT 2006).

Contributions to GHG Emissions

United States

The United States is the second highest producer of GHG emissions after China, emitting 6,702 million metric tons (MMT) CO_2E in 2011 (EPA 2013). The primary GHG emitted by human

activities in the United States was CO_2, representing approximately 84% of total GHG emissions. The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 94% of the CO_2 emissions and 79% of overall GHG emissions (EPA 2013).

State of California

According to the 2010 GHG inventory data compiled by CARB for the California Greenhouse Gas Inventory for 2000–2010, California emitted 452 MMT CO_2E of GHGs, including emissions resulting from out-of-state electrical generation (CARB 2013). The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions in 2010 are presented in Table 5.7-1, GHG Sources in California.

Table 5.7-1
GHG Sources in California

Source Category	Annual GHG Emissions (MMT CO2E)	Percentage of Total
Agriculture	32.45	7.19%
Commercial and residential	43.89	9.72%
Electricity generation	93.30[a]	20.66%
Forestry (excluding sinks)	0.19	0.04%
Industrial uses	85.96	19.03%
Recycling and waste	6.98	1.55%
Transportation	173.18	38.35%
High-GWP substances	15.66	3.47%
Totals	**451.60**	**100.0%**

Source: CARB 2013.
[a] Includes emissions associated with imported electricity, which account for 43.59 MMT CO_2E annually.

San Mateo County

As indicated above, the San Mateo County CAP includes a GHG emission inventory for the county. Emission sources and emission estimates by sector are shown in Table 5.7-2, GHG Sources in San Mateo County.

Table 5.7-2
GHG Sources in San Mateo County

Source Category	Annual GHG Emissions (MMT CO_2E)	% of Total
Transportation	479,400	61%
Commercial and Industrial Energy	160,900	21%
Residential Energy	93,100	12%
Off-Road	35,800	5%
Solid Waste	8,380	1%
Agriculture	3,000	<1%
Water and Wastewater	1,500	<1%
Totals	**782,080**	**100.00%**

Source: County of San Mateo 2013.

5.7.3 Applicant Proposed Measures

The following Applicant Proposed Measure (APM) would be implemented as part of the proposed project.

APM GHG-1 Implement BAAQMD Best Management Practices to reduce GHG emissions

To ensure that short-term GHG emissions are reduced as much as feasible and the proposed project does not result in a considerable contribution to GHG levels, Crown Castle will require all construction contractors to implement the following GHG reduction measures to the extent they are feasible:

- Using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15% of the fleet.
- Recycling or reusing at least 50% of construction waste or demolition materials.

5.7.4 Environmental Impacts and Mitigation

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

Construction

GHG emissions associated with the construction phase of the proposed project would occur as a result of burning the fuel required to operate the on-site construction equipment, mobilize work crews to and from the proposed project site, and deliver materials to the proposed project site.

Table 5.7-3 shows the estimated construction-related GHG emissions associated with the proposed project.

Table 5.7-3
Total Estimated Construction GHG Emissions

Emission Source	MT CO_2	MT CH_4	MT N_2O	MT CO_2E)
Pole replacement	5.8	0.0	0.0	5.9
Cable installation – aerial	27.6	0.0	0.0	27.6
Directional bore	13.4	0.0	0.0	13.4
Cable installation – conduit	3.8	0.0	0.0	3.8
Buried vault and marker	1.5	0.0	0.0	1.5
Total	**52.0**	**0.0**	**0.0**	**52.1**

Source: ICF 2013.
MT = metric tons; CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; CO2E = carbon dioxide equivalent

As discussed in the regulatory setting, the BAAQMD threshold of 1,100 MT CO2E/year is being used to assess the impact of the proposed project's GHG emissions. Since the BAAQMD threshold only applies to operational emissions and the BAAQMD Guidelines only recommend that construction GHG emissions be quantified and disclosed, the total project's construction emissions are provided for informational purposes and would be approximately 52.1 MT CO2E/year. As discussed below, no net increase in operational emissions is anticipated following construction. Therefore, total construction and operational emissions would be well below the BAAQMD threshold. Additionally, the proposed project would include the implementation of APM GHG-1 as stated above. APM GHG-1 includes BAAQMD-recommended Best Management Practices such as the use of low-emitting, renewable energy-powered construction equipment, and recycling of construction and demolition waste. Emissions reductions achieved through use of renewable fuels would depend on the fuel type (e.g., compressed natural gas, biodiesel) and the ability of the selected fuel to reduce GHG emissions, relative to conventional petroleum diesel. For the purposes of this analysis, emissions reductions associated with biodiesel and engine electrification were quantified. It was assumed that B20 blends achieve an average GHG reduction of 15% compared to diesel fuel, whereas engine electrification would result in a 73% reduction (ICF 2013). Pursuant to APM GHG-1, it was assumed that 15% of the equipment fleet would convert to either biodiesel or electric, resulting in a range of emissions reduction from approximately 1 metric ton CO2E (15% of fleet converted to B20) to approximately 5 metric tons CO2E (15% of fleet electrified). After accounting for potential GHG emission reductions that would result from implementation of APM GHG-1, emissions would total between 46.9 CO2E to 51.0 CO2E (ICF 2013).

Therefore, the impact of the project's GHG emissions during construction would be less than significant.

Significance: Less than Significant.

Operation and Maintenance

Operation of the proposed project would not result in GHG emissions because no emissions would not be generated. Therefore, no impact would occur.

Maintenance activities would be minimal and would primarily involve periodic inspection of proposed project facilities with a single pickup truck. Occasional reattachment of loose or detached cables may be required and these activities would be similar to cable/pole installation activities as described in Section 4.7 of the Project Description. As such, emissions associated with maintenance activities would be minimal. Therefore, impacts would be less than significant.

Significance: Less than Significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? No Impact.

As previously discussed, the County of San Mateo adopted a CAP in June 2013, which documents the County's long-term strategy for addressing the adverse effects of climate change (County of San Mateo 2013). The CAP outlines various mechanisms and measures for reducing GHG emissions at the County level, including those specific to water conservation, waste reduction, land use, and adaptation strategies to reduce GHG emissions. The County's reduction goal is a 17% reduction below baseline emissions in 2005 by 2020. Chapter 6 of the CAP outlines implementation policies and reduction measures to reach this reduction goal. Reduction measures include developing funding programs and incentives for residential and commercial energy improvements and building retrofits; alternative energy program development; establishment of collaborative partnerships among various organizations to promote and encourage energy efficiency and GHG reduction programs; promotion of green building practices; implementation of vehicle trip reduction strategies; and implementation of GHG reduction strategies specific to industry operations.

The proposed project construction involves aerial and underground installation of fiber-optic cable which would require the employment of minimal construction equipment over

a 2- month period. Construction activities, therefore, would not conflict with any of the aforementioned policies of the CAP. No impact would occur.

As previously discussed, operation of the proposed project would not result in GHG emissions. Because no emissions would be generated, proposed project operations would not conflict with an applicable GHG plan, policy or regulation. No impact would occur.

Maintenance activities would be minimal and would primarily involve periodic inspection of proposed project facilities with a single pickup truck. Occasional reattachment of loose or detached cables may be required, and these activities would be similar to cable/pole installation activities as described in Section 4.7 of the Project Description. As such, emissions associated with maintenance activities would be negligible and these activities would not result in a conflict with an applicable GHG plan, policy, or regulation. No impact would occur.

Additionally, because total project emissions would be below the BAAQMD 1,100 MT CO_2E/year threshold, the proposed project would not conflict with the CAP, and no impacts would be occur.

Significance: No Impact.

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5.8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☒	☐

5.8.1 Regulatory Setting

Federal

The EPA is the principal federal regulatory agency responsible for the safe use and handling of hazardous materials. The key federal regulations pertaining to hazardous wastes are described below. Other applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 (15 U.S.C. 2601 et seq.) authorizes the EPA to track industrial chemicals produced within or imported into the United States. Under this act, the EPA screens and tests industrial chemicals that pose a potential health hazard to humans or the environment. This act grants the EPA the authority to control and ban newly developed industrial chemicals and other chemicals that pose a risk in order to protect public and environmental health.

Resource Conservation and Recovery Act/Comprehensive Environmental Response, Compensation, and Liability Act of 1980

The Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) address handling, disposal, and spill contingency measures for hazardous substances. The National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) specify the requirements for spill response activities. These laws and regulations apply to the proposed project installation activities conducted within the subject area.

State

California hazardous materials and wastes regulations are equal to or more stringent than federal regulations. The EPA has granted the state primary oversight responsibility to administer and enforce hazardous waste management programs. State regulations require planning and management to ensure that hazardous materials are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key state laws pertaining to hazardous materials and wastes are discussed below.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes business facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered to be hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State Hazardous Waste Management Program, which is similar to, but more stringent than, the federal RCRA program. The act defines

"hazardous wastes" as waste products with properties that make them dangerous or potentially harmful to human health or the environment. Hazardous wastes can be the by-products of manufacturing processes or simply discarded commercial products, such as cleaning fluids or pesticides. The act is implemented by regulations set forth in CCR Title 26, which describes the following required parameters for the proper management of hazardous waste:

- Identification and classification
- Generation and transport
- Design and permitting of recycling, treatment, storage, and disposal facilities
- Treatment standards
- Operation of facilities and staff training
- Closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of them. Under this act and CCR Title 26, a generator of hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location. Copies of the manifest must be filed with the California Department of Toxic Substances Control (DTSC).

California Public Utilities Commission General Order 95

The Applicant is required to comply with CPUC General Order 95, which institutes requirements for overhead line design, construction, and maintenance. Application of CPUC General Order 95 is meant to ensure adequate service and secure safety to persons engaged in the construction, maintenance, operation, or use of overhead lines and to the public in general. CPUC General Order 95 requires utilities to regularly inspect their lines, to resolve any safety hazards (i.e., a condition that poses a significant threat to life or property) resulting from non-conformance with the order, and to promptly notify other utilities and/or facility owners if a safety hazard is discovered while inspecting co-located facilities.

California Occupational Safety and Health Administration Standards

Worker exposure to contaminated soils, vapors that could be inhaled, or groundwater containing hazardous constituents is subject to the monitoring and personal safety equipment requirements established in Title 8 of the California Occupational Safety and Health Administration regulations. The primary intent of the Title 8 requirements is to protect workers, but compliance with some of

these regulations also reduces potential hazards to non-construction workers and project vicinity occupants through required controls related to site monitoring, reporting, and other activities.

California Environmental Protection Agency

CalEPA implements and enforces a statewide hazardous materials program established by Senate Bill 1082 (1993) to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
- California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

Local

San Mateo County General Plan

The San Mateo County General Plan has goals and objectives related to hazards and hazardous materials. These goals and objectives are listed below.

15.6 Definition of Fire Hazards

Define fire hazards as wildland or structural fires that occur in areas that are remote, have difficult access for fire vehicles, and/or contain potentially flammable vegetative communities.

15.26 Determination of the Existence of a Fire Hazard

a. When reviewing development proposals, use the Natural Hazards map to determine the general location of hazardous fire areas.

b. When the Natural Hazards map does not clearly illustrate the presence or extent of fire hazards, use more detailed maps including but not limited to the Fire Hazard Severity Zones Map prepared by the California Department of Forestry (CDF), any other source of information considered to be valid by CDF or by fire protection districts.

16.35 Minimize Risks Surrounding Airports

Minimize health and safety risks from hazards related to aircraft operations for persons living and working in areas surrounding San Mateo County airports.

16.47 Strive to Protect Life, Property, and the Environment From Hazardous Material Exposure

Strive to protect public health and safety, environmental quality, and property from the adverse effects of hazardous materials through adequate and responsible management practices.

16.48 Strive to Ensure Responsible Hazardous Waste Management

Strive to ensure that hazardous waste generated within San Mateo County is stored, treated, transported and disposed of in a legal and environmentally safe manner so as to prevent human health hazard and/or ecological disruption.

16.49 Strive to Reduce Public Exposure to Hazardous Materials

Strive to reduce public exposure to hazardous materials through programs which: (1) promote safe transportation, (2) prevent accidental discharge, and (3) promote effective incident response, utilizing extensive inventory and monitoring techniques.

16.50 Reduce Public Exposure to Hazardous Waste

Strive to reduce public exposure to hazardous waste through programs which: (1) emphasize decreased generation of hazardous waste; (2) promote increased disposal capability for small generators of hazardous waste, including households and small businesses; (3) promote safe transportation of hazardous waste; (4) promote treatment and processing techniques as alternatives to landfill disposal of hazardous waste; and (5) prevent illegal disposal of hazardous waste.

Certified Unified Program Agency

A Certified Unified Program Agency (CUPA) is a city or county agency certified by DTSC to conduct the Unified Program established by Senate Bill 1082 (as explained under CalEPA). The San Mateo County Environmental Health Division is the CUPA with jurisdiction in the vicinity of the project area.

San Mateo County Local Coastal Program

The San Mateo County Local Coastal Program includes a hazards chapter which guides development in hazardous areas, defined as fault zones and land subject to dangers from liquefaction and other severe seismic impacts, unstable slopes, landslides, coastal cliff instability, flooding, tsunamis, fire, and steep slopes (over 30%). Geologic and hydrologic hazards are addressed in Section 5.6, Geology and Soils and Section 5.9, Hydrology and Water Quality, respectively. The San Mateo County LCP contains no relevant goals or policies related to hazards and hazardous materials.

5.8.2 Environmental Setting

The proposed project would be located within an existing utility easement generally within the rights-of-way (ROWs) of a state highway and county public roads. Land uses surrounding the proposed project are primarily large-lot rural residential and agricultural. In addition to open fields, agricultural uses include structures such as greenhouses, storage sheds, and parking areas. There are no operating gas stations, industrial areas, or other land uses in the vicinity of the proposed project that would generate, store, or transport large quantities of hazardous materials.

Former Cleanup Sites and Underground Storage Tank Sites

An EDR DataMap Corridor Study was prepared for a majority of the proposed project alignment by Environmental Data Resources Inc., and a Cortese List database search (pursuant to U.S.C. Section 65962.5) was conducted for the remainder of the project alignment (northernmost 6 miles) (ICF 2013, Appendix F). Results of the EDR report indicate that there are six underground storage tanks (USTs) within 0.25 mile of the project alignment. Five of these USTs are on Highway 1 (Hwy 1) in the mid- to southern portion of the project alignment. However, none of the USTs listed have been reported to be in violation of any environmental regulations or to pose a threat to public health and/or safety (ICF 2013, Appendix F). No sites of concern were identified as a result of the Cortese List database search.

One site adjacent to the project corridor is a reported leaking underground storage tank (LUST) site located at 3100 Cabrillo Highway. Cleanup at this site has been reported completed and the case closed. Five sites located along the project corridor are either solid waste dischargers or store small quantities of hazardous wastes on site. None of these sites, however, have been reported for any violations.

No other known regulated or unregulated hazardous waste generators, leaking tank spills, toxic spills, or other sites affecting the environment are located in the proposed project area. No sites are listed as a Superfund or other National Priorities List site.

Schools

The nearest school to the project is the Pescadero High School located approximately 2 miles east of the project alignment. Pescadero Elementary and Middle School is located 1.6 miles northeast of the project area in Pescadero. There are no public or private K-12 schools within 0.25 mile of the proposed project alignment.

Airports

The nearest public airport to the project alignment is the Half Moon Bay Airport located approximately 19 miles north of the proposed project alignment near Watsonville. The nearest private airport to the project alignment is the Las Trancas Airport located approximately 1.5 miles southeast of the proposed project alignment near Davenport.

Fire Hazard

According to the California Department of Forestry and Fire Protection (CAL FIRE) San Mateo County Fire Hazards Severity Zones map, the proposed project alignment has been mapped as an area with moderate fire hazards (CAL FIRE 2007, as cited in ICF 2013). The map of high fire hazard areas produced by San Mateo County does not include the project area in a hazardous fire area (County of San Mateo 1985).

5.8.3 Applicant Proposed Measures

The proposed project will integrate the following Applicant Proposed Measure (APM) into the design and implementation of the proposed project.

APM-HAZ-1

- Ensure proper labeling, storage, handling, and use of hazardous materials in accordance with best management practices and the Occupational Safety and Health Administration's HAZWOPER requirements.
- Ensure that employees are properly trained in the use and handling of hazardous materials and that each material is accompanied by a material safety data sheet.
- Any small quantities of hazardous materials stored temporarily in staging areas will be stored on pallets within fenced and secured areas and protected from exposure to weather. Incompatible materials will be stored separately, as appropriate.

- All hazardous waste materials removed during construction will be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility, to the extent necessary to ensure the area can be safely traversed.
- Significant releases or threatened releases of hazardous materials will be reported to the appropriate agencies.

5.8.4 Environmental Impacts and Mitigation

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

Construction of the proposed project would involve small quantities of commonly used materials, such as fuels and oils, to operate machinery and equipment necessary for aerial and underground installation activities (e.g., mobile generator, trucks, backhoes, and the bore machine). The Applicant would implement standard construction practices, as described in APM-HAZ-1, to reduce the potential for accidental spills and leaks to occur, including containment measures necessary to reduce adverse effects on the environment in the unlikely event of an inadvertent fuel/oil release. As required by law, all hazardous waste materials used or generated during construction will be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility.

Because of the temporary nature of the construction activity, lasting less than 2 months (and much more briefly in any one location along the alignment), the transport, use, and/or disposal of small quantities of hazardous materials is not routine or considered a permanent aspect of the proposed project. With integration of APM-HAZ-1 into project design, the potential for the proposed project to create hazards to the public or the environment is minimal. Furthermore, the activity is similar in nature to the existing maintenance activities periodically performed by AT&T and/or PG&E along the same utility ROW. In the long-term, periodic maintenance of the proposed fiber optic lines and cellular equipment would be consistent with the type and frequency of activities currently occurring along the utility easements and ROW. For these reasons, impacts would be less than significant.

Significance: Less than Significant.

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

As described in criterion a), potential impacts that could result from the proposed project such as the risk of an oil or hazardous materials release from trenching or improper handling would be minimal. In addition to the potential for inadvertent releases/spills to occur during construction, upset and accident conditions during installation activities could include vehicle collisions and/or fire (which could also result in release of hazardous materials). Since much of the construction activity would occur in the shoulder of Hwy 1 and local roads, there is an elevated potential for accident conditions involving vehicles, should construction activities be improperly managed. To minimize the risk of such accidents, the Applicant will implement circulation, detour, and traffic control plans, and an emergency vehicle access plan, in coordination with transportation and emergency response agencies, as part of the project, per APM-TRA1 through APM-TRA-4, and as described in Section 5.16, Transportation and Traffic. The potential for the project to increase fire hazards is discussed under Criterion h) below.

Because the Applicant will integrate proper hazardous materials management practices and develop and implement traffic safety plans as part of the proposed project (per APM-HAZ-1 and APM-TRA-1 through APM-TRA-4), impacts of the proposed project with respect to release of hazardous materials into the environment would be less than significant.

Significance: Less than Significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? No Impact.

There are no public or private K–12 schools within 0.25 mile of the proposed project. The nearest school is approximately 1.6 miles northeast of the proposed project alignment. Therefore, there would be no impact.

Significance: No Impact.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? No Impact.

According to the EDR Report, six sites of potential environmental concern are located within or adjacent to the portion of project alignment along and south of Pigeon Point Road. However, based on regulatory status, none of the sites are considered to represent a recognized environmental condition. In addition, the project alignment is not located on a Superfund or other National Priorities List site. According to a separate search of sites compiled pursuant to Government Code Section 65962.5, none are located along the portion of the alignment north of the intersection of Pigeon Point Road and Hwy 1. Therefore, the proposed project would not result in a significant hazard to the public or the environment through exposure to such sites. Therefore, there would be no impact.

Significance: 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 result in a safety hazard for people residing or working in the project area? No Impact.

The proposed project is not within an airport land use plan or within 2 miles of a public airport or public use airport. The nearest public airport to the project alignment is the Half Moon Bay Airport located approximately 19 miles north of the proposed project. Therefore, no impact would occur.

Significance: No Impact.

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? No Impact.

The nearest private airport to the project alignment is the Las Trancas Airport located approximately 1.5 miles southeast of the proposed project alignment near Davenport. Antennae and pole-top extenders would be installed on existing and replacement poles increasing the height of the node poles by a total of 9 feet. This increase, however, would not obstruct navigable airspace. Construction activities would likewise have no effect on navigable airspace or other potential safety hazard associated with airports. Therefore, the proposed project would not contribute to any safety hazard for people residing or working in the project area.

Significance: No Impact.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? No Impact.

The San Mateo County Sheriff's Office of Emergency Services (OES) serves in the capacity of the Operational Area emergency management agency. The County of San Mateo OES and Homeland Security initiated the process of updating the 2007 Countywide Emergency Operations Plan in 2011 (County of San Mateo 2011). The plan does not specifically identify any facilities or features in the project area to be critical for emergency response or evacuation. There are no fire stations, clinics, police stations, or other services would be affected by construction, operation, or maintenance of the proposed project. Furthermore, no specific evacuation routes are established in the Emergency Operations Plan (County of San Mateo 2011).

Therefore, the project would not impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Significance: No Impact.

h) Would the project 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? Less than Significant.

The proposed project may pose a fire hazard if vegetation or other obstructions come in contact with unprotected, energized electrical equipment. However, the proposed project is not in an area of high or very high fire hazard, and the lines and structures would be maintained in a manner consistent with the applicable CPUC general orders (e.g., CPUC General Order 95). Consistent with these orders and applicable state and federal laws, the project proponent would maintain an area of cleared brush around the telecommunications lines and structures, minimizing the potential for fire.

In addition to the protective measures, fire risks during construction would be low because construction areas along the project alignment would be cleared of dead/dry vegetation where needed, and vegetation encroaching on the lines would be trimmed, minimizing the potential for a construction vehicle to start a fire. Consequently, the risk of loss, injury, or death involving wildland fires as a result of proposed project would be a less-than-significant impact.

Significance: Less than Significant.

5.8.5 References Cited

County of San Mateo. 1985. "Chapter 15, Natural Hazards Map 15.1M." In *San Mateo County General Plan Background and Issues*.

County of San Mateo. 2011. *San Mateo County "Operational Area" Emergency Operations Plan.* Prepared by San Mateo County Sheriff's Office of Emergency Services and Homeland Security, January 2011.

ICF International. 2013. *Crown Castle Network San Mateo County Project, Amended Proponent's Environmental Assessment*. Prepared for Crown Castle NG West, Inc., August 2013.

5.9 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
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?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

5.9.1 Regulatory Setting

Federal

The statute that governs the activities under the proposed project that may affect water quality is the federal Clean Water Act (CWA) (33 U.S.C. 1251 et seq.). This act provide the basis for water quality regulation in the project area.

NPDES Program (CWA Section 402)

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. In November 1990, the U.S. EPA published final regulations that also establish stormwater permit application requirements for discharges of stormwater to waters of the United States from construction projects that encompass 5.0 or more acres of soil disturbance. Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address stormwater discharges from construction sites that disturb land equal to or greater than 1.0 acre and less than 5.0 acres (small construction activity). The regulations also require that stormwater discharges from small municipal separate storm sewer systems (MS4s) be regulated by an NPDES permit.

State

The state equivalent of the CWA is the Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.) which sets the framework for implementing water quality regulations and also includes additional water quality regulation in the project area.

The proposed project is located primarily within the jurisdiction of the Central Coast Regional Water Quality Control Board (RWQCB), with the northern tip of the proposed alignment slightly within the jurisdiction of the San Francisco Bay Area RWQCB. The Water Quality Control Plan for the Central Coastal Region and the Water Quality Control Plan for the San Francisco Bay Basin identify existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction and develops water quality objectives that are protective of the identified beneficial uses (Central Coast RWQCB 2011, San Francisco Bay RWQCB 2011). In addition, beneficial uses and water quality objectives applicable to the Pacific Ocean off the San Mateo County coast are found in the Water Quality Control Plan for Ocean Waters of California (SWRCB 2012). These beneficial uses and water quality objectives collectively make up the water quality standards for the region (California Water Code, Sections 13240–13247). Under CWA Section 303(d), the State of California is required to

develop a list of impaired water bodies that do not meet water quality standards and objectives, and to establish total maximum daily loads (TMDL) for each pollutant/stressor. However, since the proposed project is neither crossed by nor upstream of an impaired water body, TMDLs and CWA Section 303(d) do not apply (SWRCB 2010).

Dredge/Fill Activities and Waste Discharge Requirements

Actions that involve, or are expected to involve, discharge of waste are subject to water quality certification under Section 401 of the CWA (e.g., if a federal permit is being sought or granted) and/or waste discharge requirements (WDRs) under the Porter-Cologne Act. Chapter 4, Article 4 of the Porter-Cologne Act (California Water Code, Section 13260–13274), states that persons discharging or proposing to discharge waste that could affect the quality of waters of the state (other than into a community sewer system) shall file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States), a NPDES permit is required, which is issued under both state and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as isolated wetlands), WDRs are required and are issued exclusively under state law. WDRs typically require many of the same BMPs and pollution control technologies as required by NPDES-derived permits. Further, the WDRs application process is generally the same as for CWA Section 401 water quality certification, though in this case it does not matter whether the particular project is subject to federal regulation.

Statewide General Waste Discharge Requirements for Discharge to Land (2003-0003-DWQ)

This General WDR, for example, applies to projects that discharge to land where the discharge has a low threat to water quality. These are typically low volume discharges with minimal pollutant concentrations, such as well water discharges, small temporary dewatering projects, and hydrostatic testing discharges of clear water. The primary difference between this permit and the permits under the NPDES Program described above is the destination of the water. This permit regulates discharges to land, while the previous sections discuss discharges to storm drains or receiving waters. For instance, if a dewatering discharge will be piped to an infiltration basin during construction, this permit should be used.

Areas of Special Biological Significance

In the 1970s, to preserve biologically unique and sensitive marine ecosystems for future generations, the California legislature designated 34 regions along the coast as Areas of Special Biological Significance (ASBS). ASBSs are those areas designated by the State Water Resources Control Board (SWRCB) as ocean areas requiring protection of species or biological communities

to the extent that maintenance of natural water quality is assured. These areas support an unusual variety of aquatic life, and are important building blocks for a sustainable, resilient coastal environment and economy. The SWRCB Ocean Plan prohibits all waste discharges into these areas unless granted an exception issued by the SWRCB (SWRCB 2012). All ASBSs are also classified as a subset of State Water Quality Protection Areas (i.e., SWQPA-ASBS).

The Central Coast RWQCB (or the San Francisco Bay RWQCB) may approve waste discharge requirements or recommend certification for limited-term (i.e., weeks or months) activities in ASBS. Limited-term activities may result in temporary and short-term changes in existing water quality, but water quality degradation shall be limited to the shortest possible time. The activities must not permanently degrade water quality or result in water quality lower than that necessary to protect existing uses, and all practical means of minimizing such degradation shall be implemented.

Local

San Mateo County General Plan

The San Mateo County General Plan contains goals, policies, and objectives intended to protect the County's water resources, and defines water resources as "all surface water bodies, groundwater bodies and recharge areas, including perennial and intermittent streams" (County of San Mateo 1998). The San Mateo County General Plan contains the following relevant goals and objectives.

1.25 Protect Water Resources

Ensure that development will: (1) minimize the alteration of natural water bodies; (2) maintain adequate stream flows and water quality for vegetative, fish, and wildlife habitats; (3) maintain and improve, if possible, the quality of groundwater basins and recharge areas; and (4) prevent to the greatest extent possible the depletion of groundwater resources.

San Mateo County Local Coastal Program

The San Mateo County LCP contains no relevant goals or policies.

5.9.2 Environmental Setting

The proposed project area is located along the Pacific coastline of southern San Mateo County, which is characterized by a series of variously uplifted coastal marine terraces that form narrow beaches, and locally high cliffs, bluffs, and promontories. Small westerly draining coastal streams cut through the marine terraces to form narrow ravines/gulches whose outlets lead to wider beaches and/or brackish water lagoons. Some of the larger coastal streams are locally

impounded to create small ponds and reservoirs for livestock, agricultural irrigation, and/or other rural uses. The marine terraces along the San Mateo County coastline consist of ancient beach deposits (i.e., a relatively loose, generally less than 30-meter thick layer of sand and gravel) overlying sedimentary bedrock (i.e., sandstone, siltstone, and mudstone of the Purisima Formation) (USGS 1993). Regional uplift driven by tectonics and past changes in sea level has caused coastal streams to cut down through the near-shore oceanic bench as it has slowly risen out of the ocean over geologic time.

Surface Water Features

The proposed project alignment spans nine perennial creeks, five intermittent/ephemeral creeks, and two small water bodies (Lake Lucerne and an unnamed pond) (USGS 2013). These water features are encompassed by six of San Mateo County's watersheds (from south to north): Cascade, Whitehouse, Gazos, Yankee Jim Gulch, Arroyo de los Frijoles, and Butano.

The southernmost watershed—the Cascade watershed—encompasses the Año Nuevo area basin, an approximately 15-square-mile watershed in the southernmost portion of coastal San Mateo County consisting of several small creeks, each of which drains into the Pacific Ocean. The creeks include Cascade, Green Oaks, Año Nuevo, Finney, Cold Dip, and Elliot. The Whitehouse watershed drains 3,193 acres through Whitehouse Creek. The Gazos watershed encompasses 7,487 acres drained by Old Womans and Gazos creeks. Yankee Jim Gulch watershed consists of two unnamed creeks that feed into Yankee Jim Gulch. The Arroyo de los Frijoles (Bean Hollow) watershed drains 2,730 acres through several unnamed creeks, Bean Hollow Lakes, and Arroyo de los Frijoles. The northernmost watershed in the proposed project area—the Butano watershed—encompasses 13,925 acres and is drained by both perennial and intermittent creeks, none of which are spanned by the proposed project alignment (Wagner and Nelson 1961, as cited in ICF 2013).

Highway (Hwy) 1 along with existing overhead electric (PG&E) and communications (AT&T) lines cross these creeks in a number of locations. Highway 1 (Hwy 1) is generally constructed on compacted fill of various thickness that includes undercrossings such as concrete and pipe culverts to allow passage of creek flows. Existing utility poles are generally located on the coastal terrace or the shoulder of Hwy 1, which means the existing lines (e.g., conductors, fiber optic lines) span the ravines/gulches without requiring poles within the bed/banks of the creeks.

Water Quality

All but the Cascade and Yankee Jim Gulch watersheds are considered by San Mateo County (2008) as priority watersheds for the restoration of habitat and the recovery of coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Oncorhynchus mykiss*) populations. In addition, the SWRCB has designated the coastal section of Año Nuevo as an ASBS (ASBS No. 15) in the

Ocean Plan, indicating that the sensitivity of receiving waters to pollutants is very high and that any discharge of pollutants to surface waters is generally prohibited (with some conditional exceptions for limited-term activities).

The ASBS, which consists of the ocean waters and 5 miles of coastline along Año Nuevo Point and Island, is located near the southern portion of the proposed project alignment. With more than 13,500 acres of ocean habitat, the area provides an exquisite location for hundreds of birds and marine mammals to thrive in safety. This area includes the largest mainland breeding colony of Northern elephant seals in the world and provides crucial habitat for the future health of California's marine mammal population.

The primary water quality threat to the ASBS is agricultural runoff, although the Ocean Plan also lists stormwater runoff more generally as a water quality threat. The State Water Board has determined that despite protection under California law, Año Nuevo is contaminated with copper, lead, zinc, mercury, nickel, and selenium from agricultural runoff, highway runoff, and stormwater runoff (California Coastkeeper n.d.). Rainwater washing off agricultural areas can pick up a potentially toxic mixture of excess nutrients, pesticides, and salts. When polluted stormwater flows into natural waterways, it can adversely affect aquatic plants and animals, particularly in sensitive marine ecosystems like ASBSs.

Flood Hazards

The proposed project alignment spans approximately ten 100-year flood hazard zones mapped by FEMA (USGS 2013). The existing alignment intersects approximately 2,200 feet of mapped floodplain; in addition, the northern portion of the Gazoz Grill parking lot is also within a 100-year flood hazard zone.

5.9.3 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measures (APMs) into the design and implementation of the proposed project.

APM-HYD-1 Prior to non-stormwater discharges into surface waters, provide documentation of obtaining all necessary and applicable approvals, including the following:

- Implementation of appropriate Best Management Practice (BMP's) to minimize the potential for non-stormwater pollutants. These BMPs may include, but not necessarily be limited to, the utilization of settling ponds or screens to reduce suspended sediment loads.

APM-HYD-2 Erosion Controls:

- Excavated or disturbed soil will be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile.
- All stockpiled material will be covered or contained in such a way that eliminates off-site sediment runoff from occurring.
- Upon completion of construction activities, excavated soil will be replaced and the area restored to pre-construction conditions.

5.9.4 Environmental Impacts and Mitigation

a) Would the project violate any water quality standards or waste discharge requirements? Less than Significant.

Construction

Construction activities could briefly and locally increase the potential for stormwater runoff to carry additional pollutant loads into receiving waters. No grading is proposed, and excavations would be limited to horizontal directional drilling (HDD) entry/exit pits, access vaults, pole replacement, and a 20-foot trench, a small fraction of the work area requirements described in Chapter 4, Project Description (Table 4-2). Although construction is expected to last approximately 2 months, construction crews and equipment in any one location would be present only briefly, ranging from less than 1 hour (for most aerial installation locations), to possibly a few days (for HDD entry/exit areas). The brief and dispersed nature of the construction activities as well as the location of the proposed work areas (outside of creek corridors and lake shores) substantially limits the potential for the proposed project to violate water quality standards or waste discharge requirements.

The majority of the activities included are not land-disturbing, such as from overland travel and vehicle maneuvering within developed or previously disturbed areas (e.g., road shoulders, turnouts, and driveways). No grading or vegetation clearing is proposed because the proposed work would occur primarily along road shoulders (more than 85% of the proposed project alignment is within an existing road right-of-way (ROW)). Aerial installation activities where poles cannot be reached from an established road (either directly or from a bucket truck) would be performed by construction crews on foot. Where necessary, vegetation that interferes with the proposed fiber optic cable installation would be trimmed only to the extent necessary to provide clearance along the fiber-optic cable line, but in no case would vegetation be cleared.

During ground-disturbing activities, the Applicant would implement standard erosion control BMPs including perimeter controls (e.g., straw waddles, hay bales, or silt fences), containment measures (e.g., covering stockpiles), and would restore the site to pre-construction conditions in accordance with APM-HYD-2. In addition, construction work would be temporarily suspended during any significant rain event. Because ground-disturbing activities would generally occur on road fills, compacted earth, or in areas that are otherwise developed or previously disturbed, standard erosion control BMPs included in the proposed project would be sufficient to prevent discharge of sediment or other pollutants from active work areas into receiving waters. All areas disturbed by construction activity would be returned to preconstruction conditions at the end of each working day. Where multi-day activities are required (such as HDD entry/exit areas), disturbed soils such as those from drill cuttings or vault excavations would be hauled away to a permitted disposal facility, backfilled into the excavation, and/or covered (e.g., metal plates, pavement, plastic covers over spoil piles) prior to the end of each construction day.

The HDD process has the potential to have drilling fluid reach the ground surface due to the pressure from the HDD operation. If drilling fluid finds its way to the ground surface, it would be contained with the use of sand bags or straw bales and would be pumped into a tank or back to the drill site. After the bore is completed, any excess material would be removed from the site and either reused by the drilling contractor as backfill or disposed at an appropriate facility. The portion of the alignment to be constructed using HDD would not cross any perennial creeks, but would cross one intermittent drainage. In this location, the drainage is encased by a concrete culvert or corrugated metal pipe, which would prevent any frac-out material from affecting the drainage.

In instances where construction crews would be unable to access poles from an established roadway, overland access on foot could result in trampling of native soils and/or vegetation, but the effect would be highly localized, minor in magnitude, and short-lived. Aerial construction crews are small (at most five workers), and the equipment needed would be minimal; any minor residual effects to vegetation would likely be reversed within one growing season. Because these locations are within existing utility ROWs, other utilities that share the poles (i.e., AT&T and/or PG&E) already require access for periodic maintenance of their own lines. Therefore, vegetation and/or native soils in such locations already experience minor periodic disturbances under existing conditions.

It is not anticipated that construction crews would need to perform construction-related dewatering discharges because the proposed HDD pits would be shallow, and groundwater is not generally present near the surface on top of marine terraces. However,

there is a possibility that dewatering discharges would need to be made if there is seepage of groundwater into excavations. In such instances, the Applicant must obtain approval from the applicable RWQCB to make the discharge, and would implement BMPs such as utilization of settling ponds or screens to reduce suspended sediment loads, per APM-HYD-1. If needed, dewatering discharges would be made to adjacent land and would likely evaporate or infiltrate directly into the soil without first reaching a surface water feature. As discussed in Section 5.8, Hazards and Hazardous Materials, there is no evidence of soil or groundwater contamination, and therefore, with approval from the RWQCB, dewatering discharges would not result in adverse effects to water quality in receiving waters. All discharges of groundwater would be made in accordance with applicable NPDES permits, as described in the regulatory setting (e.g., Statewide General Waste Discharge Requirements for Discharge to Land [2003-0003-DWQ]).

Although the sensitivity of the creeks and ocean waters is high, as described in the setting, the construction activities would not violate basin plan objectives, waste discharge requirements, or otherwise degrade water quality; therefore, impacts would be less than significant.

Significance: Less than Significant.

Operation and Maintenance

The proposed project would not result in changes in land use, land cover (e.g., impervious surfaces), or stormwater flows because aerial installations would occur on existing poles that are along existing roadway and utility ROWs, and because underground installations would be limited to the shoulder of Hwy 1. The proposed access vaults would be buried and would maintain the original surface line and grade of the road shoulder. If needed, the proposed staging area would be in an existing paved parking area. The proposed project would restore work areas to pre-construction conditions, per APM-HYD-2. Operation and maintenance of the proposed project would not involve water or wastewater discharges, nor does it alter the rate, volume, or location of stormwater flows. Since operation and maintenance of the proposed project would not violate water quality standards or waste discharge requirements, impacts would be less than significant.

Significance: Less than Significant.

b) Would the project 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 (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)? Less than Significant.

Construction

The proposed project would not require substantial amounts of water during construction. Dewatering of excavations, if required, would not have permanent effects on groundwater supplies or the local groundwater level. The temporary effect, if any, would be highly localized (i.e., immediate vicinity surrounding the excavation), limited to perched water or the shallow groundwater table, and would not have appreciable or detectable effects on the production rate of nearby wells, if present. For these reasons, the impact of the construction of the proposed project on groundwater would be less than significant.

Significance: Less than Significant.

Operation and Maintenance

There would be no demand for water during operation and maintenance; therefore, no impact would occur.

Significance: No Impact.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? Less than Significant.

As discussed under criterion a), no changes to existing drainage patterns would occur as a result of proposed project construction, operation or maintenance. The original surface and grade would be maintained where excavation is required, and most other surface disturbances would be limited to improved roadways, shoulders and/or compacted earth. Where poles must be accessed by crews on foot over vegetation or native soils, the effects would be minor, localized, and temporary. Therefore, the proposed project would not substantially alter existing drainage patterns, and thus would have a less-than-significant effect on existing level of erosion and siltation.

Significance: Less than Significant.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? Less than Significant.

As discussed under criterion a), no changes to existing drainage patterns would occur as a result of proposed project construction, operation, or maintenance. The original surface and grade would be maintained where excavation is required, and most other surface disturbances would be limited to improved roadways, shoulders, and/or compacted earth. Where poles must be accessed by crews on foot over vegetation or native soils, the effects on existing drainage patterns (e.g., reduced infiltration capacity due to soil compaction) would be minor, highly localized, and temporary. Therefore, the proposed project would not substantially alter existing drainage patterns, and thus would have a less-than-significant effect on flooding on or off site.

Significance: Less than Significant.

e) Would the project 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? No Impact.

The proposed project area is not served by a municipal stormwater drainage system, and therefore no impact could occur.

The project would not provide additional sources of polluted runoff beyond the potential for construction related stormwater and non-stormwater discharges discussed under criterion a). The project does not include any long-term discharges, nor would it increase levels of pollutants (e.g., sediment) within stormwater runoff in the long run.

Significance: No Impact.

f) Would the project otherwise substantially degrade water quality? No Impact.

There are no other means by which the project could substantially degrade water quality other than those discussed in item a). Therefore, there would be no impact.

Significance: No Impact.

g) Would the project 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? No Impact.

The proposed project does not involve the construction of any housing; therefore, no impact could occur.

Significance: No Impact.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows? See criterion j) below. Less than Significant.

i) Would the project 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? See criterion j) below. Less than Significant.

j) Inundation by seiche, tsunami, or mudflow? Less than Significant.

Approximately 2,200 feet of the existing alignment is located in 100-year flood zones associated with nine creeks. No components of proposed project, except some anchors and a fiber-optic cable would be installed within a 100-year flood hazard zone (FEMA 2013). The proposed temporary staging area would be within the 100-year floodplain associated with Gazos Creek. Two small portions of the proposed project alignment, one along Gazos Creek and one at Lake Lucerne, fall within an area mapped by the state of California as subject to tsunami inundation (State of California 2009). Anchors in proximity to Lake Lucerne could possibly be affected by a seiche. These areas can be collectively referred to a potential zones of inundation.

The proposed project components that would be located within potential zones of inundation consists only of the new communication line on existing structures and the placement of anchors on existing poles to maintain stability. There are no replacement poles proposed within potential zones of inundation, and none of the underground components would be affected by an inundation zone. Because the fiber-optic cable would be strung aboveground and because the anchors are thin wires bolted to the ground, the wires and anchors would not affect the magnitude, extent, or timing of existing tsunami hazards for the public or nearby properties. The anchors lack any significant cross-sectional area necessary to redirect or impede flood flows. If a disaster (i.e., 100-year flood, dam failure, tsunami) sufficient in magnitude to inundate project components were to occur, utility companies would send crews to inspect the lines and repair any damage detected in accordance with standard operating procedures.

Although certain proposed project components may be inundated by dam failure, seiche, tsunami or mudflow, such components would not increase inundation hazards for the public or off-site properties. For these reasons, the impact would be less than significant.

Significance: Less than Significant.

5.9.5 References Cited

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5.10 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

5.10.1 Regulatory Setting

Federal

There are no applicable federal regulations or policies related to land use and planning for the proposed project.

State

California Public Utilities Commission

Pursuant to Public Utilities Code (PUC) 1001, the California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the proposed project and alternatives because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. Although such projects are typically exempt from local land use, zoning regulations, and discretionary permitting, PUC 1002(a) requires the CPUC to consider the following community factors: community values, recreational and park areas, historical and aesthetic values, and influence on the environment, which are reflected in local land use plans.

California Coastal Act

The California Coastal Act (CCA) was enacted in 1976 by the state legislature to provide long-term protection of the state's 1,100 miles of coastline. The policies of the CCA form the standards by which the California Coastal Commission (CCC) approves coastal development permits (CDPs) and the Local Coastal Programs (LCPs) developed by local agencies (CCC

2013). These policies, among others, focus on protection and expansion of public access to the shoreline and recreational opportunities; protection, enhancement, and restoration of biological resources; and protection of scenic seascapes and coastal landscapes. Through the CCA, the CCC is granted regulatory oversight in the planning and regulation of land use and water in the coastal zone (CCC 2013). In California, the coastal zone generally extends 1,000 yards inland from the mean high tide line; however, in significant coastal estuarine, habitat, and recreational areas, the coastal zone may extend up to 5 miles or the first major ridgeline (NOAA 2013).

Development activities requiring coastal development permits in the Coastal Zone are regulated by the CCC and local governments through their respective coastal development permit processes. CCA Chapter 3 policy mandates and coastal development permit requirements are implemented by local governments (cities and counties) pursuant to a certified LCP. Upon certification of an LCP by the CCC, local governments assume coastal development permit responsibility for most new development within their jurisdictions.

The proposed project would be located entirely within the coastal zone and is therefore subject to the applicable regulations and policies of the certified LCP and CCA. More specifically, since portions of the proposed project would be located between the Pacific Ocean and Highway 1 (Hwy 1) and/or are within 300 feet of the shoreline, the policies related to public access (Article 2 Public Access) and recreation (Article 3 Recreation) need to be considered in context to the proposed project. See criterion b), below, for CCA consistency analysis.

Section 30610 of the Coastal Act state in part: …no coastal development permit shall be required for…(e) the installation, testing, and placement in service or the replacement of any necessary utility connection between an existing service facility and any development approved pursuant to this division; provided, that the Commission may, where necessary, require reasonable conditions to mitigate any adverse impacts on coastal resources, including scenic resources.

Local

San Mateo County General Plan

San Mateo County General Plan contains policies intended to guide the physical development of the unincorporated areas of San Mateo County. The proposed project would traverse land designated as Agricultural with several smaller areas designated as Public Recreation and General Open Space in the General Plan. Chapter 9 contains Rural Land Use policies applicable to general development and development in rural areas. Therefore, the following policies of the San Mateo County General Plan would be relevant to the proposed project:

9.30 Development Standards to Minimize Land Use Conflicts with Agriculture

a. Avoid to the greatest extent possible locating non-agricultural activities on soils with agricultural capability or lands in agricultural production. Regulations should place priorities according to the relative productive characteristics of the resource.

b. Locate non-agricultural activities in areas of agricultural parcels which cause the least disturbance to feasible agricultural activities.

c. Buffer any non-agricultural activities from agricultural activities by means of distance, physical barriers or other non-disruptive methods.

d. Ensure that any extension of public services and facilities to serve non-agricultural activities will not impair feasible agricultural activities.

9.36 Development Standards to Minimize Land Use Conflicts with Public Recreation

d. Provide structural, visual, auditory and other buffering mechanisms to protect portions of the public recreation lands that are used by the public from non-recreational land uses.

9.42 Development Standards for Land Use Compatibility in General Open Space Lands

b. Locate development in areas of parcels which cause the least disturbance to scenic resources and best retain the open space character of the parcel.

c. Where possible, locate development in areas that are free from hazardous conditions, including but not limited to, steep slopes, unstable soils, and areas of special flood hazard.

San Mateo County Zoning Ordinance

The San Mateo County Zoning Ordinance specifies the uses permitted in each of the 30 established zoning districts in the County. The entirety of the proposed project alignment traverses a combined zoning district, Planned Agricultural District/Coastal Development District (PAD/CD).

The purpose of the PAD zoning district is to preserve and foster existing and potential agricultural operations in the County and to minimize conflicts between agricultural and non-agricultural land uses (County of San Mateo 2012). The CD district is an overlay applied to lands coterminous with the portion of the Coastal Zone within unincorporated San Mateo County. Section 6328.4 states that any person or agency wishing to undertake any project in the CD district is required to obtain a CDP (County of San Mateo 2012). User permits for land uses such as public utilities are allowable within this the PAD/CD districts when found to be necessary for the public health, safety, convenience, or welfare.

Wireless telecommunication facilities are addressed in Chapter 24.5 Wireless Telecommunication Facilities of the Zoning Regulations. Section 6510, Purpose, of Chapter 24.5 discusses the intent of the chapter and includes the following objectives that are relevant to the proposed project:

A. Allow for the provision of wireless communication services adequate to serve the public's interest within the County.

B. Require, to the maximum extent feasible, the co-location of wireless telecommunication facilities.

C. Encourage and require, to the maximum extent feasible, the location of new wireless telecommunication facilities in areas where negative external impacts will be minimized.

Section 2.4, Ordinance Conformity of the San Mateo County LCP states "as a condition of permit approval, special districts, public utilities and other government agencies shall conform to the County's zoning ordinance and the policies of the Local Coastal Program." Accordingly, see criterion b), below, for Zoning Ordinance consistency analysis.

San Mateo County Local Coastal Program

The San Mateo County Local Coastal Program (LCP) identifies the appropriateness of various residential commercial, industrial, public works, and open space (including agriculture) land uses in the coastal urban and rural areas of the county. For example, with the exception of very low density residential, all forms of identified residential, commercial, and industrial land uses are permitted within urban areas, while in rural areas only very low density residential and open space comprise permitted uses (County of San Mateo 2013). Section 1, Locating and Planning New Development Component, of the LCP contains a general summary of land uses and development densities permitted in rural areas, rural service areas, and rural residential areas. New development that will not have significant adverse impacts on coastal resources and those that do not affect the suitability of land for agriculture are permitted and commercial facilities supporting agriculture and recreation are encouraged in existing rural service centers (County of San Mateo 2013). Public Works including telecommunication and other similar facilities are discussed in Section 2 of the LCP and according to the LCP, a CDP is required for any public utility, government agency or special district "wishing to undertake any development in the Coastal Zone" (County of San Mateo 2013). See criterion b) below, for LCP consistency analysis.

5.10.2 Environmental Setting

The proposed project alignment follows an existing utility right-of-way (ROW) for an approximately 14.2-mile route along Hwy 1 and Pigeon Point Road and Bean Hollow Road through the southern South Coast portion of unincorporated San Mateo County. The urban North

County, Mid-Bayside, and South Bayside areas of the County lie to the north and northeast of the South Coast area. The proposed project area and the larger South Coast portion of the County is predominantly rural and is devoted to agricultural, recreational, or open space uses (County of San Mateo 1986). While existing development adjacent to the proposed alignment is relatively sparse, land uses near the alignment include agriculture (i.e., farms, ranches, and nurseries); recreation (e.g., Año Nuevo State Park, Pigeon Point Light Station State Historic Park, trails, camping, public parking for coastal access, Lake Lucerne); and small commercial uses including roadside restaurants, rural residences, and undeveloped open space. In addition, Costanoa Lodge, a private resort, and the adjacent KOA campground are also located in the area east of Hwy 1 and are accessible via Ross Road. In addition to the above referenced land uses, coastal prairie lands and remnant stands of small patches of knobcone pine forest are common sights in the landscape along Hwy 1 in the proposed project area.

The entirety of the proposed project alignment traverses agricultural lands intermixed with smaller areas of open space, public recreation and rural residences. Agricultural lands near the proposed project alignment support a variety of agricultural operations including the Swanton Berry Farm; Año Nuevo Flower Growers and the Bay City Flower Growers; the R Cevasco and Durigano's nurseries; and several ranches including Pie Ranch, K&S Ranch, and Coastways Ranch. Open space is located along the southern and middle segments of the alignment (east of Hwy 1) and generally supports undeveloped, sloping terrain and narrow creek valleys. Public recreation lands located west of the proposed alignment in the southern extent of the project area comprise the western extent of Año Nuevo State Park and the adjacent Año Nuevo Coast Natural Preserve. Public access is permitted in the state park; however, access to the Coast Natural Preserve is restricted to protect sensitive wildlife species (California Department of Parks and Recreation 2013). Rural residences are also located near the proposed project alignment generally along Whitehouse Canyon and Gazos Roads east of Hwy 1, near Pigeon Point Road east of Hwy 1, and east and west of Hwy 1 between Pigeon Point Road and Bean Hollow Road.

5.10.3 Applicant Proposed Measures

The proposed project would integrate the following applicant proposed measures (APMs) into the proposed project.

APM-LU-1 Submit written documentation, including evidence of review by the appropriate public works, planning, and/or community development agency for the applicable jurisdictions. This documentation will include the following:

- Site plan showing the dimensions and location of the finalized alignment;
- Evidence that the project meets all necessary requirements;

- Evidence of compliance with design standards;
- Copies of any necessary permits or conditions of approval; and
- Records of any discretionary decisions made by of the applicable jurisdictions.

5.10.4 Environmental Impacts and Mitigation

a) Would the project physically divide an established community? No Impact.

There are no established communities that would be directly affected by the proposed project; therefore, no physical division could occur. Moreover, since the proposed project would be located entirely within an existing utility corridor on existing utility poles, there would be no change in baseline conditions in regards to the criterion. Accordingly, no impact would occur.

Significance: No Impact.

b) Would the project 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? Less than Significant.

The CPUC has sole and exclusive permitting jurisdiction over the siting and design of the proposed project; therefore, it would typically be exempt from local land use and zoning regulations and discretionary permitting. However, the proposed project is not exempt from the jurisdiction of the CCC/San Mateo County LCP or the Zoning Ordinance per Section 2.4 Ordinance Conformity of the LCP, which states "as a condition of permit approval, special districts, public utilities and other government agencies shall conform to the County's zoning ordinance and the policies of the Local Coastal Program."

In regards to the San Mateo County General Plan and Zoning Ordinance, the proposed project would traverse lands designated as Agricultural with several smaller areas designated as Public Recreation and General Open Space and zoned PAD/CD. The proposed project would be located within existing utility ROW where similar infrastructure currently exist and no change from the existing land use would occur. Therefore, the proposed project would not conflict with the San Mateo County General Plan or Zoning Ordinance.

Given that the proposed project meets the definition of development and would result in physical changes within the Coastal Zone, Table 5.10-1, Consistency Analysis with the Applicable Land Use Plans, Policies, or Regulations for the Proposed Project, has been included even though the proposed project would not result in a change from the existing

land use. Moreover, as discussed below, the proposed project would be consistent with the California Coastal Act, San Mateo LCP and the Zoning Ordinance. Therefore, impacts would be less than significant.

Significance: Less than Significant.

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
California Coastal Act	
Article 2 Access	
Section 30211: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. **Section 30212:** Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.	Consistent. Implementation of the proposed project would not impede access to the shoreline where it is currently provided because the proposed project would generally be installed on existing utility poles and/or underground within an existing utility ROW, which does not interfere with coastal access where adequate public access exist. In addition, temporary construction/installation activities would not affect or displace existing coastal access routes such as public access roads, bike/pedestrian paths, or public parking areas. One lane of travel would remain open at all times along Pigeon Point Road, and bicycle traffic would be provided reasonably safe and effective passage through the temporary construction zone along Hwy 1. Also, staging areas would avoid public parking areas and coastal trails/paths.
Article 3 Recreation	Not Applicable. The proposed project would not affect recreation activities and/or use; therefore, no policies are applicable.
San Mateo County Local Coastal Program (LCP)	
1.25 Protection of Archaeological/Paleontological Resources Based on County Archaeology/Paleontology Sensitivity Maps, determine whether or not sites proposed for new development are located within areas containing potential archaeological/paleontological resources. Prior to approval of development proposed in sensitive areas, require that a mitigation plan, adequate to protect the resource and prepared by a qualified archaeologist/paleontologist be submitted for review and approval and implemented as part of the project.	Consistent. While the County General Plan does not include an Archaeological/Paleontological Sensitivity Map, best available information (see Section 5.5, Cultural Resources, Criterion c)) indicates that significant archaeological resources are unlikely to be encountered and that geological rock units of only low paleontological potential would be disturbed by the proposed project. Despite the low potential for uncovering sensitive resources, unanticipated discovery measures have been integrated into the project design (see APM-CUL-1) and are sufficient to ensure that archaeological and paleontological resources would be protected during construction activities.
2.4 Ordinance Conformity As a condition of permit approval, special districts, public utilities and other government agencies shall conform to the County's zoning ordinance and the policies of the Local Coastal Program.	Consistent. See discussion of San Mateo County Zoning Ordinance and Local Coastal Program (LCP), below.
2.43 Desired Level of Service In assessing the need for road expansion, consider Service	Consistent. Traffic generated during construction would be minimal (less than ten total vehicles would be utilized by

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
Level D acceptable during commuter peak periods and Service Level E acceptable during recreation peak periods.	crews during the 2-month construction schedule) and periodic maintenance inspections would consist of a single truck patrolling the project route facilities. As a result, construction and maintenance traffic would not degrade existing LOS B operations on Hwy 1, and road expansion would not be required to accommodate proposed project traffic.
7.3 Protection of Sensitive Habitats Prohibit any land use or development which would have significant adverse impact on sensitive habitat areas. Development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. All uses shall be compatible with the maintenance of biologic productivity of the habitats.	Consistent. Ponds/open water and riparian willow shrub would be spanned by the proposed project; therefore, no impact would occur. Construction activities may necessitate pruning and/or removal of limbs from Monterey pine trees, which are susceptible to pine pitch canker (a fungal pathogen). These trees are located with an existing utility ROW and already subject to maintenance activities in support of maintaining required clearance for the existing utilities. Mitigation Measure BIO-1 would control and minimize spread of the pathogen when trimming and removing limbs from susceptible trees. Therefore, the proposed project would not have a significant adverse impact to this sensitive habitat. A single pole replacement would be required in coastal terrace prairie habitat. The pole is located within already disturbed habitat, adjacent to an existing road, such that habitat disturbance associated with the pole replacement would not significantly degrade the habitat.
7.33 Permitted Uses (Rare and Endangered Species) b. If the critical habitat has been identified by the Federal Office of Endangered Species, permit only those uses deemed compatible by the U.S. Fish and Wildlife Service in accordance with the provisions of the Endangered Species Act of 1973, as amended.	Consistent. Three creeks designated as critical habitat for coho salmon (*Oncorhynchus kisutch*) and steelhead (*Oncorhynchus mykiss*) would be spanned by the proposed project and no activities would take place within the streambed or bank; therefore, no impacts to migratory fish corridors or designated critical habitat would occur. California red-legged frog critical habitat has been designated to the east of Hwy 1, The proposed project would undertake ground-disturbance activities within designated upland habitat for the red-legged frog located within the existing ROW. Integration of APM-BIO-3 into proposed project design would ensure that either construction activities in this habitat would be avoided in winter (when the frogs would be present) or, if this is not feasible, a qualified biologist would undertake pre-construction surveys, worker education, and a suite of other actions that would ensure that project construction would not result in inadvertent take of red-legged frog. With integration of APM-BIO-3 into proposed project design, no adverse impacts to critical habitat would occur. Therefore, the proposed project would be consistent with the regulations implementing the Endangered Species Act (50 FR 17.95(d)).

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
7.48 Monterey Pine (Unique Species) Require any development to keep to a minimum the number of native Monterey pine (*Pinus radiata*) cut in the natural pine habitat near the San Mateo–Santa Cruz County line.	Consistent. See San Mateo County LCP Policy 7.3 Protection of Sensitive Habitats.
8.10 Vegetative Cover (with the exception of crops grown for commercial purposes) Replace vegetation removed during construction with plant materials (trees, shrubs, ground cover) which are compatible with surrounding vegetation and are suitable to the climate, soil, and ecological characteristics of the area.	Consistent. Vegetation removal would be limited to pole replacement areas and a small trench adjacent to Pigeon Point Road near the Pigeon Point cell tower. These areas are generally located next to roadways and/or in areas previously disturbed. All ground surfaces would be restored as close to pre-project condition. Therefore, existing vegetation in the Coastal Zone would not be substantially altered by the proposed project.
8.15 Coastal Views Prevent development (including buildings, structures, fences, unnatural obstructions, signs, and landscaping) from substantially blocking views to or along the shoreline from coastal roads, roadside rests and vista points, recreation areas, trails, coastal accessways, and beaches.	Consistent. Proposed network equipment would be collocated with existing utilities on existing utility poles that are similar to those proposed. Antennae and associated equipment would be installed on five node poles along the southern extent of the proposed project alignment and would not substantially block views or alter the existing visual environment. While the added height of pole extenders and the added bulk of electric meters would be visible, they would not constitute major, continuous features in the landscape that would substantially block views. Also, the addition of fiber-optic cable to existing utility poles would not block views. Distribution and communication lines are currently strung on existing poles, and the addition of new fiber-optic cable would not display significant bulk that would impede or alter existing views to or along Hwy 1, Bean Hollow Road, and other smaller County roads.
8.18 Development Design Require that development (1) blend with and be subordinate to the environment and the character of the area where located, and (2) be as unobtrusive as possible and not detract from the natural, open space or visual qualities of the area including, but not limited to, siting, design, layout, size, height, shape, materials, colors, access and landscaping. The colors of exterior materials shall harmonize with the predominant earth and vegetative colors of the site. Materials and colors shall absorb light and minimize reflection. Exterior lighting shall be limited to the minimum necessary for safety. All lighting, exterior and interior, must be placed, designed, and shielded so as to confine direct rays to the parcel where the lighting is located. Except for the requirement to minimize reflection, agricultural development shall be exempt from this provision. Greenhouse development shall be designed to minimize visual obtrusiveness and avoid detracting from the natural characteristics of the site. Require that all non-agricultural development minimize noise, light,	Consistent. Project components would be visible but the overall character of antennae, battery back-up units, electric meters, and pole extenders installed on node poles would be consistent with that of existing poles. Because the removal of trees and significant stands of existing vegetation would not be required, the cloaking effect of existing trees and vegetation along the alignment would remain and would continue to partially mask facilities. Further, the proposed project primarily entails the installation of equipment on existing utility poles, and while proposed project components would be visible, they would not constitute obtrusive, continuous features in the landscape that would block views or detract from the natural qualities of the coastal landscape. Regarding color of materials, the Applicant would implement APM-AES-2 and would coordinate with the County to comply with applicable architectural design policies related to equipment cabinets, antennae, and pole top extenders to minimize color contrasts and reflective surfaces. The use of exterior lighting is not anticipated during construction, operation,

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
dust, odors, and other interference with persons and property off the development site.	and maintenance of the proposed project. While construction noise would be noticeable to the average person, construction activities would be temporary, of short duration in any one location and less than the allowable County threshold. Noise would not be generated during operations. Maintenance noise would be substantially less in duration, frequency and intensity than that of construction noise. Dust and odors would generally be associated with construction and maintenance activities which would be short-term and temporary in nature.
8.31 Regulation of Scenic Corridors in Rural Areas Apply the policies of the Scenic Road Element of the County General Plan. Apply Section 6325.1 (Primary Scenic Resources Areas Criteria) of the Resource Management (RM) Zoning District as specific regulations protecting scenic corridors in the Coastal Zone. Apply the Rural Design Policies of the LCP.	Consistent. a), b). While the San Mateo General Plan does not contain a Scenic Road Element, it does contain policies requiring the protection of scenic corridors and the management of utilities in State Scenic Corridors. The proposed project would avoid adverse impacts to visual resources (including impacts to scenic corridors in the Coastal Zone) by co-locating project components with existing power and telecommunications infrastructure and by siting replacement poles in close proximity to the existing pole. Further, equipment installed on existing poles would not display significant bulk that would impede or alter existing views along Hwy 1. Poles and equipment would also be partially masked by existing trees and vegetation along the proposed project alignment. In addition, fiber-optic cable would be installed underground within the ROW of existing roadways. c) In accordance with the Rural Area policies of the LCP (Section 1, Locating and Planning New Development Component), the proposed project would not result in significant impacts on coastal resources and would not affect the ability to keep prime agricultural land and other land suitable for agriculture. The proposed project would co-locate project components with existing power and telecommunications infrastructure and would replace up to 12 existing utility poles. Because equipment would be installed on existing infrastructure, impacts to coastal views, scenic corridors, and agricultural resources would be minimal.
San Mateo County Zoning Ordinance	
Section 6324.3 Utilities Public utility structures, including building signs, overhead wires and utility poles, shall be of minimum bulk and height and designed to have an uncluttered appearance and remain subordinate to the setting.	Consistent. Proposed aerial facilities/components (antennae and associated equipment installed on node poles and fiber-optic cable along Hwy 1 within an existing utility ROW) and replacement guy wires and anchors would be of the minimum required bulk and height to achieve the project objective of expanding wireless voice and broadband services in the project area. Proposed network equipment would be collocated with existing utilities on existing utility poles that
Section 6325.1 Primary Scenic Resources Area Criteria a) Public views within and from Scenic Corridors shall be protected and enhanced, and development shall not be	

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
allowed to significantly obscure, detract from, or negatively affect the quality of these views. Vegetative screening or setbacks may be used to mitigate such impacts. Development visible from Scenic Corridors shall be so located and designed as to minimize interference with ridgeline silhouettes. m) No development shall be permitted to obstruct or significantly detract from views of any Scenic Area of Landscape Feature from a Scenic Corridor.	are similar to those proposed. As shown on the visual simulations prepared for the proposed project, antennae, battery back-up units, electric meters, and pole extenders installed on node poles would be visible but their overall character would be consistent with that of existing poles. In addition, even with the bulk of distributed antenna systems (DAS) network components, utility poles would remain subordinate to the surrounding landscape. Further, as viewed from Hwy 1, several node poles rise above background ridgeline silhouettes, and the installation of DAS network components would not substantially affect existing views.
Section 6512.2 Development and Design Standards for New Wireless Telecommunication Facilities that are not Co-Location Facilities The adverse visual impact of utility structures shall be avoided by: (1) siting new wireless telecommunication facilities outside of public viewshed whenever feasible; (2) maximizing the use of existing vegetation and natural features to cloak wireless telecommunication facilities; and (3) constructing towers no taller than necessary to provide adequate coverage. When visual impacts cannot be avoided, they shall be minimized and mitigated by: (a) screening wireless telecommunication facilities with landscaping consisting of non-invasive and/or native plant material; (b) painting all equipment to blend with existing landscape colors; and (c) designing wireless telecommunication facilities to blend in with the surrounding environment. Attempts to replicate trees or other natural objects shall be used as a last resort. Landscaping shall be maintained by the property or facility owner and/or operator. The landscape screening requirement may be modified or waived by the Community Development Director or his/her designee in instances where it would not be appropriate or necessary, such as in a commercial or industrial area. Paint colors for the co-location facility shall minimize its visual impact by blending with the surrounding environment and/or buildings. Prior to the issuance of a building permit, the applicant shall submit color samples for the co-location facility. Paint colors shall be subject to the review and approval of the Planning and Building Department. Color verification shall occur in the field after the applicant has painted the equipment the approved color, but before the applicant schedules a final inspection. The exteriors of co-location facilities shall be constructed of non-reflective materials. The wireless telecommunication facility shall comply with all the	Consistent. Because the proposed project would be co-located with existing power and telecommunications infrastructure, does not proposed new poles in new locations, and would install the fiber-optic cable underground where no such infrastructure exists, the proposed project design has avoided adverse visual impacts. Other than as-needed vegetation trimming for construction, the removal of trees and significant stands of existing vegetation would not be required. As part of the proposed project, the Applicant would implement APM-AES-2, and would coordinate with the County of San Mateo and comply with applicable policies related to the architectural design of the equipment cabinets, antennae, and pole top extenders. The final design of the proposed visible structures could be modified to further minimize visibility based on consultation with the County. The proposed project would be located within existing utility ROW where similar infrastructure currently exists; therefore, there would be no change from the existing land use. Consistency with the Coastal Act, LCP and Zoning are discussed in this table. The pole top extenders on the five proposed node poles would increase the height of the poles by 9 feet and poles would be well below the maximum allowable height of 150 feet. Only two of the node poles are located in close proximity to trees, and the poles do not exceed the height of the trees, mostly Monterey pines (generally is 70 to 110 feet tall). Lastly, it is debatable as to whether any of the proposed node poles are located in a "forested area," since trees, where they exist, are patchy and consist of remnant stands of Monterey pine. In addition, the proposed node poles are sited on the periphery of these areas, rather than within them.

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
requirements of the underlying zoning district(s), including, but not limited to, setbacks and Coastal Development Permit regulations in the CZ or CD zones.* Except as otherwise provided below, ground-mounted towers, spires and similar structures may be built and used to a greater height than the limit established for the zoning district in which the structure is located; provided that no such exception shall cover, at any level, more than 15% in area of the lot nor have an area at the base greater than 1,600 sq. ft.; provided, further that no tower, spire or similar structure in any district shall ever exceed a maximum height of 150 feet. In the PAD, RM, RM-CZ, TPZ and TPZ-CZ districts, in forested areas, no structure or appurtenance shall exceed the height of the forest canopy by more than 10% of the height of the forest canopy, or five feet, whichever is less.*	
Section 6512.2. Development and design standards for new wireless telecommunication facilities that are not co-location facilities. All new wireless telecommunication facilities must meet the following minimum standards. Where appropriate, more restrictive requirements may be imposed as a condition of use permit approval. A. New wireless telecommunication facilities shall be prohibited in a Sensitive Habitat, as defined by Policy 1.8 of the General Plan (Definition of Sensitive Habitats) for facilities proposed outside of the Coastal Zone, and by Policy 7.1 of the Local Coastal Program (Definition of Sensitive Habitats) for facilities proposed in the Coastal Zone, except when all of the following written findings are made by the reviewing authority: (1) There is no other feasible location(s) in the area; and (2) There is no alternative facility configuration that would avoid impacts to environmentally sensitive habitat areas; and (3) Prohibiting such facility would be inconsistent with federal law; and (4) Adverse impacts to the sensitive habitat are minimized to the maximum extent feasible; and (5) Unavoidable impacts are mitigated so that there is no loss in habitat quantity or biological productivity.	Consistent: See above discussions for LCP Policies: 7.3 Protection of Sensitive Habitats, 7.33 Permitted Uses (Rare and Endangered Species), and 7.48 Monterey Pine (Unique Species). The proposed project would not result in significant impacts to sensitive habitats.
Section 6512.3. Performance Standards for New Wireless Telecommunication Facilities that are not Co-location Facilities. A grading permit may be required, per Sections 8600–8609 of the County Ordinance Code. All grading, construction and generator maintenance activities associated with the proposed project shall be limited from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday or as further restricted by the terms of the use permit. Construction activities will be prohibited on	Consistent. No grading would occur as part of the proposed project. Per APM-NOI-1, construction activities would be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday or as further restricted by the terms of the use permit. Moreover, as discussed in Section 5.12, Noise, noise levels produced by construction activities would not exceed 80-dBA at any time.

Table 5.10-1
Consistency Analysis with Applicable Land Use Plans, Policies, or Regulations for the Proposed Project

Applicable Land Use Plan, Policy, or Regulation	Consistency Determination
Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed 80-dBA [A-weighted decibels] at any time.	
Section 6512.4 Additional Requirements and Standards for Wireless Telecommunication Facilities in the Coastal Zone New wireless telecommunication facilities shall not be located between the first public road and the sea, or on the seaward side of Highway 1 in rural areas, unless no feasible alternative exists, the facility is not visible from a public location, or will be attached to an existing structure in a manner that does not significantly alter the appearance of the existing structure.	Consistent. Proposed network equipment would be installed on existing utility poles. Antennae and associated equipment would be installed on five node poles along the southern extent of the alignment and would not substantially block views or alter the existing visual environment. While the added height of pole extenders and the added bulk of electric meters would be visible, they would not constitute major, continuous features in the landscape that would substantially block views. Also, the addition of fiber-optic cable to existing utility poles would not block views. Distribution and communication lines are currently strung on existing poles and the addition of new fiber-optic cable would not display significant bulk that would impede or alter existing views to or along Hwy 1, Bean Hollow Road, and other smaller County roads.
New wireless telecommunication facilities shall comply with all applicable policies, standards, and regulations of the Local Coastal Program (LCP) and the CZ or CD Zoning District.	Consistent. See discussion of San Mateo County LCP and CD Zoning District, above.

* CZ = Coastal Zone
CD = Coastal Development District
PAD = Planned Agricultural District
RM = Resource Management District
RM CZ =Resource Management District, Coastal Zone
TPZ = Timberland Production Zone
TPZ-CZ = Timberland Production Zone, Coastal Zone

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan? No Impact.

The proposed project alignment would not be located on lands within the geographic boundaries of any Habitat Conservation Plan or Natural Community Conservation Plan; therefore, no impacts would occur.

Significance: No Impact.

5.10.5 References Cited

CCC (California Coastal Commission). 2013. Program Overview. Accessed December 9, 2013. http://www.coastal.ca.gov/whoweare.html.

California Department of Parks and Recreation. 2013. "Año Nuevo State Park." California Department of Parks and Recreation. Accessed December 9, 2013. http://www.parks.ca.gov/pages/523/files/AnoNuevoWebBroch2012.pdf.

County of San Mateo. 1986. *San Mateo County General Plan*. November 1986. Accessed January 8, 2014. http://planning.smcgov.org/sites/planning.smcgov.org/files/SMC-GP%201986.pdf.

County of San Mateo. 2012. Zoning Regulations. December 2012.

NOAA (National Oceanic and Atmospheric Administration). 2013. "State Coastal Zone Boundaries." Accessed December 9, 2013. http://coastalmanagement.noaa.gov/mystate/docs/StateCZBoundaries.pdf.

5.11 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

5.11.1 Regulatory Setting

Federal

No federal plans or policies concerning mineral resources apply to the proposed project.

State

California Surface Mining and Reclamation Act

The protection of regionally significant mineral resource deposits is one of the main emphases of the California Surface Mining and Reclamation Act (SMARA). The law specifically mandates a two-phased process, commonly referred to as classification and designation, for mineral resources. The California Geological Survey is responsible under SMARA for carrying out the classification phase of the process. The California Mining and Geology Board is responsible for the second phase, which allows the Board to designate areas within a production-consumption region that contain significant deposits of certain mineral resources that may be needed to meet the region's future demand. SMARA requires the State Geologist to classify lands into Mineral Resource Zones (MRZs) based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or ownership.

Division of Oil, Gas, and Geothermal Resources

The California Department of Conservation maintains the Division of Oil, Gas, and Geothermal Resources (DOGGR). The DOGGR is responsible for monitoring the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells with the intention of environmental protection, public health and safety, and general environmental conservation methods. The DOGGR is also responsible for collecting groundwater, oil, gas, and geothermal resource data for maintaining a record of all drilled and abandoned well locations.

Local

San Mateo County General Plan

The following goals and objectives are relevant to mineral resources.

> 3.1 Mineral Resource Identification, Protection and Extraction
>
> Identify Significant Mineral Resource Areas, protect the availability of mineral resources located within these areas, and encourage their extraction in a manner which minimizes adverse environmental impacts.
>
> 3.2 Protection of Significant Mineral Resource Areas
>
> Protect Significant Mineral Resource Areas from encroachment by incompatible land uses.

San Mateo County Local Coastal Program

There are no applicable Local Coastal Program policies related to mineral resources for the proposed project.

5.11.2 Environmental Setting

The geologic environment of the proposed project consists of marine terrace deposits overlying older sedimentary bedrock, such as the Purisima Formation (USGS 1993). This environment has the potential to yield materials such as sand, gravel, and/or crushed stone that could be used for construction materials. According to a map of mineral resources within San Mateo County, the proposed project is not within an area identified as MRZ-2 (i.e., areas where adequate information indicates significant mineral deposits are present or where it is judged that a high likelihood exists for their presence) (County of San Mateo 1985). However, there are two identified mineral resource deposits (gems) and one crushed/broken stone quarry in the vicinity of the proposed project (County of San Mateo 1985). The gemstone deposits identified are small resources or resources usable only at a high price. The crushed stone quarry, which is identified on the map as a significant mineral resource, is north of the northern most portion of the proposed project alignment. The San Mateo County General Plan also indicates that "[p]etrified whalebone occurs in sedimentary rocks along beaches or tidal areas and has been identified at Año Nuevo Beach," and that "jasper has been found at Pigeon Point beaches." (County of San Mateo 1998).

Although there are mineral resources in the vicinity of the proposed project, none are crossed or adjacent to the project alignment.

5.11.3 Applicant Proposed Measures

There are no applicant proposed measures associated with mineral resources.

5.11.4 Environmental Impacts and Mitigation

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? No Impact.

None of the proposed activities would occur in areas that have been identified as a mineral resource of regional or statewide significance. In addition, the proposed project is located entirely within existing highway rights-of-way (ROWs) and utility easements which are not currently available for development as mining or mineral processing facilities. Therefore, the project would not result in loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Significance: No Impact.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? No Impact.

None of the proposed activities would occur in areas that have been identified as a significant mineral resource in the San Mateo County General Plan or the Local Coastal Program. In addition, the proposed project is located entirely within existing highway ROWs and utility easements which are not currently available for development as mining or mineral processing facilities. Therefore, the project would not result in loss of any known mineral resource of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Significance: No Impact.

5.11.5 References Cited

County of San Mateo. 1985. "Chapter 3, Mineral Resources Map." In *San Mateo County General Plan Background and Issues*.

USGS (U.S. Geological Survey) 1993. "Preliminary Geologic Map of the Onshore Part of the Palo Alto 1:100,000 Quadrangle, California." Compiled by E.E. Brabb. USGS Open File Report 93-271.

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5.12 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE – Would the project result in:				
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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 levels?	☐	☐	☐	☒
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?	☐	☐	☒	☐

5.12.1 Noise Background and Terminology

Fundamentals of Environmental Noise

Vibrations, traveling as waves through air from a source, exert a force perceived by the human ear as sound. Sound pressure level (referred to as sound level) is measured on a logarithmic scale in decibels (dB) that represent the fluctuation of air pressure above and below atmospheric pressure. Frequency, or pitch, is a physical characteristic of sound and is expressed in units of cycles per second or hertz (Hz). The normal frequency range of hearing for most people extends from about 20 to 20,000 Hz. The human ear is more sensitive to middle and high frequencies, especially when the noise levels are quieter. As noise levels get louder, the human ear starts to hear the frequency spectrum more evenly. To accommodate for this phenomenon, a weighting system to evaluate how loud a noise level is to a human was developed. The frequency weighting called "A" weighting is typically used for quieter noise levels which de-emphasizes the low frequency components of the sound in a manner similar to the response of a human ear. This A-weighted sound level is called the "noise level" and is referenced in units of dBA.

Because sound is measured on a logarithmic scale, a doubling of sound energy results in a 3 dBA increase in the noise level. Changes in a community noise level of less than 3 dBA are not typically noticed by the human ear (DOT 2011). Changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA increase is readily noticeable (EPA 1981). The human ear perceives a 10 dBA increase in sound level as a doubling of the sound level (i.e., 65 dBA sounds twice as loud as 55 dBA to a human ear).

An individual's noise exposure occurs over a period of time; however, noise level is a measure of noise at a given instant in time. Community noise sources vary continuously, being the product of many noise sources at various distances, all of which constitute a relatively stable background or ambient noise environment. The background, or ambient, noise level gradually changes throughout a typical day, corresponding to distant noise sources, such as traffic volume, as well as changes in atmospheric conditions.

Noise levels are generally higher during the daytime and early evening when traffic (including airplanes), commercial, and industrial activity is the greatest. However, noise sources experienced during nighttime hours when background levels are generally lower can be potentially more conspicuous and irritating to the receiver. In order to evaluate noise in a way that considers periodic fluctuations experienced throughout the day and night, a concept termed "community noise equivalent level" (CNEL) was developed, wherein noise measurements are weighted, added, and averaged over a 24-hour period to reflect magnitude, duration, frequency, and time of occurrence. A complete definition of CNEL is provided below.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), the day–night sound level (L_{dn}), and the CNEL. Below are brief definitions of these measurements and other terminology used in this section.

- **Decibel** (dB) is a unitless measure of sound on a logarithmic scale which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- **A-weighted decibel** (dBA) is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent sound level** (L_{eq}) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the day–night average sound levels (L_{dn}) and community noise equivalent level (CNEL) scales.

- **Maximum sound level** (L_{max}) is the maximum sound level measured during the measurement period.
- **Minimum sound level** (L_{min}) is the minimum sound level measured during the measurement period.
- **Day–night average sound level** (L_{dn}) is a 24-hour average A-weighted sound level with a 10 dB penalty added to the nighttime hours from 10:00 p.m. to 7:00 a.m. The 10 dB penalty is applied to account for increased noise sensitivity during the nighttime hours); resulting values from application of L_{dn} versus CNEL (see definition below) rarely differ by more than 1 dB, and therefore these two methods of describing average noise levels are often considered interchangeable.
- **Community noise equivalent level** (CNEL) is the average equivalent A-weighted sound level during a 24-hour day. CNEL accounts for the increased noise sensitivity during the evening hours (7 p.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.) by adding 5 dB to the sound levels in the evening and 10 dB to the sound levels at night. CNEL and L_{dn} are often considered equivalent descriptors.

Exterior Noise Distance Attenuation

Noise sources are classified in two forms: (1) point sources, such as stationary equipment or a group of construction vehicles and equipment working within a spatially limited area at a given time, and (2) line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dBA for each doubling of distance from the source to the receptor at acoustically "hard" sites and at a rate of 7.5 dBA for each doubling of distance from source to receptor at acoustically "soft" sites. Sound generated by a line source (i.e., a roadway) typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling distance, for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers. For the purpose of sound attenuation discussion, a "hard" or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt or concrete ground surfaces, as well as very hard-packed soils. An acoustically "soft" or absorptive site is characteristic of unpaved loose soil or vegetated ground.

Fundamentals of Vibration

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. The response of humans to vibration is very complex. However, it is generally accepted that human response is best approximated by the vibration velocity level associated with the vibration occurrence.

Heavy equipment operation, including stationary equipment that produces substantial oscillation or construction equipment that causes percussive action against the ground surface, may be perceived by building occupants as perceptible vibration. It is also common for ground-borne vibration to cause windows, pictures on walls, or items on shelves to rattle. Although the perceived vibration from such equipment operation can be intrusive to building occupants, the vibration is seldom of sufficient magnitude to cause even minor cosmetic damage to buildings.

To avoid confusion with sound decibels, the abbreviation VdB is used for vibration decibels. The vibration threshold of perception for most people is around 65 VdB. Vibration levels in the 70 to 75 VdB range are often noticeable but generally deemed acceptable, and levels in excess of 80 VdB are often considered unacceptable (FTA 2006).

5.12.2 Regulatory Setting

Federal

Federal Transit Administration and Federal Railroad Administration Standards

Although the FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (May 2006) are routinely used for projects proposed by local jurisdictions. The FTA and Federal Railroad Administration (FRA) have published guidelines for assessing the impacts of ground-borne vibration associated with rail construction projects, which have been applied by other jurisdictions to other types of construction projects. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inch/second perturbation projection vector (PPV).

State

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

Local

San Mateo County General Plan

The San Mateo County General Plan does not include policies that address noise related to construction, operation, and maintenance of the proposed project.

San Mateo County Ordinance Code

On December 9, 2008, Chapter 24.5, Wireless Telecommunication Facilities, was added to the San Mateo County Ordinance Code by Ordinance No. 4450. The California Coastal Commission certified this ordinance on September 15, 2010, with amendments. The purpose of the chapter is to establish regulations for the establishment of wireless telecommunication facilities within the unincorporated area of San Mateo County, consistent with the General Plan. Accordingly, these standards are used as the basis for this environmental analysis.

> Section 6512.3. Performance Standards for New Wireless Telecommunication Facilities that are not Co-location Facilities.
>
> H. A grading permit may be required, per Sections 8600–8609 of the County Ordinance Code. All grading, construction and generator maintenance activities associated with the proposed project shall be limited from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday or as further restricted by the terms of the use permit. Construction activities will be prohibited on Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed 80-dBA at any time.

San Mateo County Local Coastal Program

The San Mateo County LCP contains the following relevant policy.

> 8.18 Development Design
>
> c. Require that all non-agricultural development minimize noise, light, dust, odors and other interference with persons and property off the development site.

5.12.3 Environmental Setting

Noise-sensitive receptors typically include residential areas, hospitals, schools, and places of worship. The proposed project site is located in a primarily rural area, with existing land uses in the vicinity including agriculture, parks and outdoor recreation, camping, and agricultural and

rural residences. The agricultural and rural residences comprise the noise sensitive land uses in the project vicinity. Some residences are located as close as approximately 50 to 100 feet of the alignment, including residences at the end of Año Nuevo State Park Road and along Pigeon Point Road at the north end of the project. The visitor center complex for Año Nuevo State Park is also located approximately 50 feet from the alignment.

The subject area is located within or adjacent to the right-of-way (ROW) of the Highway 1 (Hwy 1) transportation corridor. Existing noise sources include traffic on Hwy 1, and to a lesser extent agricultural equipment operation. There are no public airports, public use airports, or helipads within 2 miles of the proposed project alignment.

Vehicular traffic along vicinity highways or major roadways is typically a primary contributor to the overall noise environment proximate to the roadway. Using current average daily traffic data from the California Department of Transportation (Caltrans; Caltrans 2012) and employing standard noise modeling equations adapted from the FHWA noise prediction model, Dudek modeled the daytime hourly average sound level and CNEL associated with Hwy 1 within the project area. Table 5.12-3 presents the results of the noise modeling for all existing traffic on Hwy 1 (Appendix A). Note the reference distance from the centerline of the road is 50 feet, the approximate distance to the edge of the ROW (and also the shortest distance from the proposed project alignment to existing residences).

Table 5.12-3
Existing CNEL for Highway 1

Roadway	ADT (Average Daily Trips)	Posted Speed	CNEL (at 50 feet from centerline)	L_{eq} (at 50 feet from centerline)
Highway 1	5,500	55	66	65

Existing traffic-related noise exposure levels at the approximate edge of the Hwy 1 ROW are calculated to have a daytime hourly average of 65 dBA and a CNEL value of 66 dBA. These levels are within the "conditionally acceptable" range for residences, schools, lodging facilities, nursing care homes, parks, recreational facilities, and offices. This noise level would attenuate at a rate of approximately 3 dB per doubling of distance from the centerline. At 100 feet the existing CNEL for Hwy 1 is calculated at 63 dBA; at 200 feet the CNEL would drop to 60 dBA.

5.12.4 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measure (APM) into the design and implementation of the proposed project.

APM-NOI-1

- Require construction contractors to comply with the construction-hour limitations and construction equipment standards set forth by each local jurisdiction.
- All equipment will have sound-control devices no less effective than those provided on original equipment;
- No equipment will have an unmuffled exhaust;
- Construction equipment will be located as far from sensitive receptors (e.g., residences, schools, places of worship, and hospitals) as possible; and
- If traffic-control devices requiring electrical power are employed within 500 feet of sensitive receptors, the devices will be battery/solar powered instead of powered by electrical generators.
- In addition, implement a variety of measures to reduce noise levels from directional boring where noise levels of 60 dBA or greater will be experienced at sensitive receptor locations. For example:
- Special mufflers can be applied to the boring rig exhaust;
- Shielding can be erected between the noise source and the receptor; or
- As an extreme measure, a temporary enclosure can be erected to house the boring operation.
- Implement all reasonable and customary noise reduction measures and post the name and telephone number of a person for the public to contact to resolve noise-related problems.

5.12.5 Environmental Impacts and Mitigation

a) Would the project result in 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? Less than Significant.

Construction

During construction, equipment operation would be the primary noise source associated with construction activities and could affect noise sensitive receptors adjacent to the construction site. Please refer to the temporary noise discussion below, criterion d), for analysis and conclusions regarding temporary noise associated with construction activities.

Noise levels at receiving properties are dependent on several factors, including the number of machines operating within an area at a given time and the distance between the source(s) and receiving properties. The nearest sensitive receptors along the proposed project alignment include homes at the south end of Año Nuevo State Park Road, along Hwy 1 about 900 feet north of the Año Nuevo State Park Road/Hwy 1 intersection, along Hwy 1 about 3,500 feet north of the Gazos Creek Road/Hwy 1 intersection, and along Pigeon Point Road. These homes are located approximately 50 to 60 feet from the proposed project alignment and would be affected by noise levels generated by construction activities occurring nearest these homes. As discussed under criterion d) below, average hourly construction noise could range up to 72 dBA at these closest residences, approximately 6 dBA higher than ambient noise levels but lower than the 80 dB limit for construction of telecommunication facilities contained in Chapter 24.5 of the San Mateo County Ordinance Code. Furthermore, hours of construction would be limited to the hours specified in Chapter 24.5 (7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday or as further restricted by the terms of the use permit). Therefore, since construction of the proposed project would not exceed applicable noise standards, noise exposure impacts from project-related construction activities would be less than significant.

Significance: Less than Significant.

Operation

Operation of the proposed project would not result in any noise generation as the cable and appurtenances do not generate noise. Therefore, there would be no impact.

Significance: No Impact.

Maintenance

Maintenance and repair activities associated with the proposed project are minimal. Maintenance personnel may occasionally need to perform maintenance on the antenna or cable, using a standard utility bucket truck. Noise levels from such activities would likely be equivalent to, or less than, those predicted for the construction phase of the proposed project. Maintenance activities would be rare and would not be expected to be required at any particular location more frequently than once every several years. Furthermore, the duration at any particular location would typically be brief. Therefore, noise impacts from maintenance activities would be less than significant.

Significance: Less than Significant.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? Less than Significant.

Construction

The most important sources of groundborne vibration during construction of a typical project are very heavy equipment (e.g., bull dozers, flat-bed trucks with substantial loads, etc.), impact pile drivers, explosives, and vibratory compactors. No equipment with a substantial potential to generate vibration are anticipated to be used for the construction of the proposed project. During horizontal directional drilling activities, a slight amount of vibration could be generated. In these areas, the closest sensitive receptors are located approximately 500 feet from the proposed activity. In addition, construction activities would take place for a matter of hours or a limited number of days at any one location, and construction hours would conform to the County's ordinance for telecommunication projects (Chapter 24.5). Therefore, impacts would be less than significant.

Significance: Less than Significant.

Operation

No equipment or activity involved with operation of the proposed project would produce vibration; therefore, no impact would occur.

Significance: No Impact.

Maintenance

Maintenance activities associated with the proposed project could generate minimal amounts of groundborne vibration. Maintenance personnel may occasionally need to inspect the line in pickup trucks and/or perform maintenance on the line using a standard utility bucket truck. Rubber-tired vehicles such as this do not generate appreciable levels of vibration. Therefore, impacts would be less than significant.

Significance: Less than Significant.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? No Impact.

Construction and Maintenance

While construction and maintenance activities associated with the proposed project would result in short-term, temporary noise level increases (see criterion d) below), no permanent increases would occur; therefore, no impact would occur.

Significance: No Impact.

Operation

Operation of this project would not result in any noise generation; therefore, no impact would occur.

Significance: No Impact.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Less than Significant.

Construction

Construction of the proposed project would involve the use of motorized equipment which would generate noise, constituting a temporary increase in ambient noise levels. A construction noise analysis was performed using a model developed under the auspices of the Federal Highway Administration (FHWA) called the Roadway Construction Noise Model (RCNM) (FHWA 2008). Input variables for RCNM consist of the receiver/land use types, the equipment type (i.e., backhoe, crane, truck, etc.), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of hours the equipment typically works per day), and the distance from the sensitive noise receptor (Appendix A).

The various construction equipment types and quantities (described below) were used for this analysis. The RCNM has default duty cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns and are the basis of this analysis.

Noise-sensitive land uses in the vicinity of the proposed project adjacent to the aerial portion of the project include residences, agriculture dwellings, and visitor centers for several park facilities. For the buried cable segment, residences, agriculture dwellings, and a KOA campground represent proximate noise-sensitive land uses. Table 5.12-4 provides the equipment assumptions used for the analysis and distances from the proposed construction activity to the closest sensitive receptors. The distances represent the closest sensitive receptor to a given portion of the alignment, and do not refer to the distances of every receptor to a single point of construction activity. For instance, the distance from the aerial portion of the proposed project alignment to the nearest sensitive receptor varies from 50 feet up to more than 3,000 feet. Because construction would be limited to the daytime hours specified in Chapter 24.5 of the San Mateo County Ordinance Code, it is not necessary to evaluate receptors greater than 500 feet from the construction activity.

Table 5.12-4
Construction Equipment Assumptions and Sensitive Receptors Distances

Construction Activity	Aerial Cable Installation
Equipment Needed	(1) Man-lift (1) Flatbed Truck
Sensitive Receptors	Residences/Offices – 50 feet Residences/Offices – 90 feet Residences – 135 feet Residences – 250 feet Residences – 400 feet Residences – 500 feet
Construction Activity	**Underground Cable Installation**
Equipment Needed	(1) Excavator (1) Dump Truck (1) Flatbed Truck (1) Ground Compactor
Sensitive Receptors	Residences – 135 feet Residences – 500 feet Residences – 900 feet

Table 5.12-5 provides the results of the construction noise analysis. Note that hourly average construction noise levels (L_{eq}) would range up to approximately 6 dBA greater than the ambient noise levels currently associated with Hwy 1 traffic. Construction activity noise levels would therefore be noticeable to the average person. However, because construction activities would be temporary, of short duration in any one location and less than the 80 dBA allowable threshold, and within the prescribe working hours codified in the San Mateo County Ordinance Code, construction impacts would be less than significant.

Table 5.12-5
Construction Noise Summary of Results (dBA L_{eq})

Receiver Description	Distance to Construction	Construction Noise Level at Sensitive Receptor	
		Construction Activity	*Average Noise Level (dBA L_{eq})*
Residence/ Park Office	50 feet	Overhead Cable Install	72
Residence/ Park Office	90 feet	Overhead Cable Install	67
Residence	135 feet	Overhead Cable Install	64
Residence	250 feet	Overhead Cable Install	58
Residence	400 feet	Overhead Cable Install	54
Residence	500 feet	Overhead Cable Install	52
Residence	135 feet	Underground Cable Install	72
Residence	500 feet	Underground Cable Install	61
Residence	900 feet	Underground Cable Install	56

Significance: Less than Significant.

Operation

Operation of the proposed project would not result in any noise generation; therefore, there would be no impact.

Significance: No Impact.

Maintenance

As discussed above under criterion a), the noise levels from maintenance and repair activities would likely be equivalent to, or less than, those predicted for the construction phase of the project. As discussed above under Construction, noise from construction activities associated with the proposed project would be temporary, of short duration in any one location and less than the 80 dBA allowable threshold, and

within the prescribe working hours codified in the San Mateo County Ordinance Code. Therefore, impacts would be less than significant.

Significance: Less than Significant.

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 levels? No Impact.

The proposed project is not located within an airport land use planning area. No public or public use airports are located within 2 miles of the proposed project alignment. Therefore, there would be no impact.

Significance: No Impact.

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? Less than Significant.

The nearest private airport/airstrip to the project alignment is the Las Trancas Airport, located approximately 1.5 miles southeast of the proposed project alignment near Davenport. The airport has one gravel runway and is owned and operated by a lumber company. One aircraft (a single-engine aircraft) is based there (AirNav.com 2013). As discussed above, since construction and maintenance activities would be temporary in nature and of short duration in any one location, and there would be no active operational activities, the proposed project would not expose project staff to excessive noise levels from the airport operations. Impacts would be less than significant. The proposed project does not include a residential element; therefore, no impacts could occur in this regard.

Significance: Less than Significant.

5.12.6 References Cited

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EPA. 1981. *Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise.* National Service Center for Environmental Publications. July 1981. Accessed January 7, 2014. http://www.epa.gov/nscep/index.html.

FHWA. 2008. Roadway Construction Noise Model (RCNM).

FTA (Federal Transit Administration). 2006. *Transit Noise & Vibration Impact Assessment.* Federal Transit Administration, Office of Planning and Environment. May 2006.

DOT (U.S. Department of Transportation). 2011. " Highway Traffic Noise: Analysis and Abatement Guidance." http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf.

5.13 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

5.13.1 Regulatory Setting

Federal

There are no relevant federal policies related to population and housing.

State

General Plans

State law requires each city and county to adopt a general plan for its future growth. The general plan must include a housing element that identifies housing needs for all economic segments and provide opportunities for housing development to meet those needs. At the state level, the Housing and Community Development Department estimates the relative share of California's projected population growth that would occur in each county presented by the California Department of Finance's demographic research unit.

Each city and county must update its general plan housing element on a regular basis (usually every 5 years). Among other things, the housing element must incorporate policies and identify potential sites that would accommodate the city's and county's share of the regional housing need. The applicable county housing element, the San Mateo County General Plan, is described below.

Local

San Mateo County General Plan Housing Element

The San Mateo County General Plan, as the county's fundamental land use and development policy document, establishes the type and extent of housing permitted in unincorporated areas of the County. San Mateo County's rural south coast has relatively few, widely dispersed households, with housing needs primarily associated with the area's agricultural economy. The San Mateo County General Plan Land Use Map designates adjacent lands from the proposed project alignment as Agriculture and Public Recreation (County of San Mateo 2009). The San Mateo County Zoning Map designates lands from the proposed project alignment as Planned Agricultural District/Coastal Development District (PAD/CD)(County of San Mateo 2012). The housing element identifies lands east of the southernmost portion of the proposed project alignment as PAD suitable for farm labor housing, and indicates that no infrastructure constraints are associated with these parcels (County of San Mateo 2009).

There are no relevant General Plan policies related to population.

San Mateo County Local Coastal Program

The San Mateo County Local Coastal Program (LCP) regulates all forms of development within San Mateo County's designated coastal zone, defined in the project vicinity as the area extending 5 miles inland from the mean high tide line of the sea. Under the LCP, development includes the "placement or erection of any solid material or structure; discharge or disposal of any dredged material or any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials" on land or in water. The LCP defines a structure as including but not limited to "buildings, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line" (County of San Mateo 2013). The LCP contains policies intended to protect the resources of the county's coastal zone and direct the placement of housing to specific areas.

5.13.2 Environmental Setting

The proposed project would be constructed in southern San Mateo County. The proposed project would be installed primarily on existing poles located in an existing utility corridor within the rights-of-way (ROWs) along Highway 1 (Hwy 1) and local roadways. Land uses surrounding the proposed project alignment are rural and sparse including agricultural (i.e., farms, ranches, and nurseries); recreation (e.g., Año Nuevo State Park, camping/glamping,[1] public parking for costal access); and small commercial uses and rural residences.

[1] Glamping = Glamorous camping.

Population

According to the Department of Finance (2013a), as of January 2013, San Mateo County had a population of 735,678, while unincorporated San Mateo County had a population of 63,603. Table 5.13-1 summarizes estimated population growth in Year 2010 and projected population growth in Year 2015 for San Mateo County. As demonstrated in Table 5.13-1, the population in the county is expected to increase by approximately 3.9% from 2010 to 2015.

Table 5.13-1
Estimated Population Growth, 2010 to 2015

San Mateo County		
Year	*Population*	*% Change from Previous 5 years*
2010	719,729	N/A
2015	747,637	3.9%

Source: California Department of Finance 2013b.

Housing

Scattered rural residences are present in the project vicinity. The nearest residential properties are approximately 50 to 100 feet from the proposed project alignment at the end of Año Nuevo State Park Road and along Pigeon Point Road. Other nearby residences are also in rural settings and minimal in number. These residences are located along Hwy 1 and Bean Hollow Road near the northern end of the project alignment; others are associated with Swanton Berry Farm/Coastways Ranch, Año Nuevo Flower Growers, Pie Ranch, and Cascade Ranch Historic Farm.

5.13.3 Applicant Proposed Measures

No applicant proposed measures have been identified for this resource.

5.13.4 Environmental Impacts and Mitigation

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? No Impact.

The proposed project does not include new homes or businesses and would not directly induce substantial temporary or permanent population growth in the project area. Accordingly, the proposed project would have no direct impact on population growth inducement.

The proposed project could indirectly induce population growth in the project area if it encourages people to move to the project area to construct, operate, or maintain the proposed project. Construction activities would last approximately 2 months. During

peak construction activities, up to 20 construction workers would be employed per day. Construction workers would be hired from the Bay Area and therefore are not anticipated to move to the project area to complete the work. Operation and maintenance activities associated with the proposed project also would not result in an increase in area residents since maintenance activities would consist of periodic (typically annually) inspection and minor repairs to be conducted by existing employees. Accordingly, the proposed project would not indirectly induce population growth.

The proposed project also could indirectly induce population growth if it extends infrastructure related to population growth. The proposed project would expand wireless broadband services to the existing rural residents, businesses, and travelers on Hwy 1. Growth in the study area is planned and regulated by applicable local planning and zoning ordinances. Wireless services by itself would not induce growth within a particular area. Rather, factors such as economic conditions, land availability, population trends, availability of water supply or sewer services, and local planning policies have a direct effect on growth. Accordingly, the proposed project would not indirectly induce population growth.

Significance: No Impact.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? No Impact.

No housing units would be displaced by the proposed project. Thus, the construction of replacement housing would not be required. The proposed project would be within existing road ROWs generally along Hwy 1 and Pigeon Point and Bean Hollow Roads. Therefore, the proposed project would not displace housing necessitating the construction of replacement housing elsewhere. There would be no impact.

Significance: No Impact.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? No Impact.

As discussed above, the proposed project would be within existing road ROWs generally along Hwy 1 and Pigeon Point and Bean Hollow Roads and would not displace any people or housing or any other structures that are currently occupied by people. Accordingly, the proposed project would have no impact associated with the displacement of people or the construction of replacement housing.

Significance: No Impact.

5.13.5 References Cited

California Department of Finance. 2013a. "City/County Population Estimates with Annual Percent Change." May 1, 2013. Accessed December 15, 2013. http://www.dof.ca.gov/Research/demographic/reports/estimates/e-1/view.php.

California Department of Finance. 2013b. "Total Population Projections for California and Counties: July 1, 2015 to 2060 in 5-year Increments." January 2013. Accessed December 16, 2013. http://www.dof.ca.gov/research/demographic/reports/projections/p-1/.

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5.14 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES – Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

5.14.1 Regulatory Setting

Federal

There are no relevant federal policies related to public services.

State

California Public Utilities Commission

CPUC regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies in the state. CPUC is responsible for ensuring that California utility customers have safe, reliable utility service at reasonable rates, protecting utility customers from fraud, and promoting the health of California's economy. CPUC establishes service standards and safety rules and authorizes utility rate changes. CPUC enforces CEQA compliance for utility construction.

Local

There are no relevant General Plan or LCP policies related to public services.

5.14.2 Environmental Setting

The proposed project would be constructed in southern San Mateo County. The proposed project consist of installation of distributed antenna systems network facilities, including fiber-optic

cable, antennas, nodes, and related facilities along existing rights-of-way (ROWs) or existing utility easement, primarily along Highway 1 (Hwy 1) and Pigeon Point Road and Bean Hollow Road. Approximately 12.8 miles of the fiber-optic cable would be placed aerially on existing utility poles, and approximately 1.4 miles of new conduit would be installed underground within existing ROWs.

The proposed project would connect to the existing Verizon Wireless cellular tower on the Bay Flower Company property at the northernmost end of the proposed project alignment. The proposed project would also connect to another Verizon Wireless macro cell tower near Pigeon Point Road.

Fire Protection and Emergency Medical Services

The proposed project alignment is situated in an area designated as a Non-Very High Fire Hazard Severity Zone by the California Department of Forestry and Fire Protection (CAL FIRE; CAL FIRE 2008). Fire services for the proposed project area are provided by the San Mateo–Santa Cruz Unit of CAL FIRE (CAL FIRE 2012).

The San Mateo County Emergency Medical Services Department provides emergency medical services to the proposed project area. To address county emergency and non-emergency medical transport needs, the County partners with American Medical Response, a private organization (County of San Mateo 2012).

CAL FIRE

CAL FIRE is responsible for State Responsibility Areas, and primarily fights wildland fires; CAL FIRE is not responsible for structural fires. The San Mateo–Santa Cruz Unit serves the proposed project area. This unit is geographically divided into four battalions. Within the unit, there are state and county paid stations, local government departments, fire protection districts, as well as numerous volunteer companies (CAL FIRE n.d.).

Police Protection

The San Mateo County Sheriff's Office has designated patrol service for more than 70% of San Mateo County, within the unincorporated areas. The San Mateo County Sherriff's Office, which has jurisdiction over unincorporated areas of the county, provides police services to the proposed project area (San Mateo County Sherriff's Office 2013).

Schools

School districts serving the project area include the La Honda–Pescadero Unified School District (County of San Mateo 2008). The closest school to the proposed project alignment is Pescadero Elementary and Middle School, located approximately 1.6 miles northeast of the proposed project alignment.

Parks

Parks in the project vicinity include Año Nuevo State Park, Pigeon Point Light Station State Historic Park, Butano State Park, and numerous other parks and beaches within 5 miles of Año Nuevo. See Section 5.15, Recreation, for a discussion of recreational facilities, including parks, in the vicinity of the proposed project.

5.14.3 Applicant Proposed Measures

No applicant proposed measures have been identified for this resource.

5.14.4 Environmental Impacts and Mitigation

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

Fire protection? No Impact.

Fire protection in the proposed project area is provided by the San Mateo–Santa Cruz Unit of CAL FIRE (CAL FIRE 2012). Increases in long-term demand for fire protection services are typically associated with substantial increases in population. The proposed project would not result in a population increase, nor introduce any new uses to the proposed project area, that would generate increased long-term demand for fire protection services (see Section 5.13, Population and Housing, for more information related to potential population increases). Construction activities would last approximately 2 months, and the replacement of existing support poles and movement of utilities would last between 3 and 6 months. During peak construction activities, up to 20 construction workers would be employed per day. Construction workers would be hired from a union out of the Bay Area, and therefore workers are not anticipated to move to the project area to complete the work. Operation and maintenance activities

associated with the proposed project also would not result in an increase in area residents since maintenance activities would consist of periodic (typically annually) inspection and minor repairs to be conducted by existing employees. Since the proposed project would not result in a need for new housing units, it would not affect the various fire protection agencies' ability to maintain acceptable response times based on current station locations. Therefore, the proposed project would not result in the need for new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

Significance: No Impact.

Police protection? No Impact.

Police protection services in the proposed project area would be provided by the San Mateo County Sheriff's Office (San Mateo County Sherriff's Office 2013). Increases in the demand for police protection services are typically associated with substantial increases in population. The proposed project would not result in a population increase, nor introduce any new uses to the proposed project area, that would generate increased long-term demand for police protection services (see Section 5.14, Population and Housing, for more information related to potential population increase). Construction activities would last approximately 2 months, and the replacement of existing support poles and movement of utilities would last between 3 and 6 months. During peak construction activities, up to 20 construction workers would be employed per day. Construction workers would be hired from a union out of the Bay Area, and therefore workers are not anticipated to move to the project area to complete the work. Operation and maintenance activities associated with the proposed project also would not result in an increase in area residents since maintenance activities would consist of periodic (typically annually) inspection and minor repairs to be conducted by existing employees. Therefore, the proposed project would not affect the police protection agencies' ability to maintain an acceptable service ratio or result in the need for new or physically altered police protection facilities.

Significance: No Impact.

Schools? No Impact.

Increased demand for public school services are typically associated with increases in the local population or demand for housing. As previously discussed, construction activities would last approximately 2 months, and the replacement of existing support poles and

movement of utilities would last between 3 and 6 months. During peak construction activities, up to 20 construction workers would be employed per day. Construction workers would be hired from a union out of the Bay Area, and therefore workers are not anticipated to move to the project area to complete the work. Operation and maintenance activities associated with the proposed project also would not result in an increase in area residents since maintenance activities would consist of periodic (typically annually) inspection and minor repairs to be conducted by existing employees. Therefore, the proposed project would not result in an increased demand for school facilities and would not require the construction of a new or modification of an existing school, the construction of which could cause significant environmental effects. The proposed project would have no impact with respect to schools.

Significance: No Impact.

Parks? Less than Significant Impact.

For potential impacts on recreational facilities, including parks, see Section 5.15, Recreation. Impacts on recreational facilities were found to be less than significant or to have no impact.

Significance: Less than Significant.

Other public facilities? No Impact.

The proposed project would not result in substantial adverse impacts related to other types of public facilities (e.g., public libraries, hospitals, or other civic uses) because, as discussed above, the proposed project would not result in a significant increase of local population or housing, which is typically associated with increased demand for public facilities. Short-term construction activities would require up to 20 construction workers per day. Operation and maintenance activities would consist of periodic (typically annually) inspection and minor repairs to be conducted by existing employees. Therefore, the proposed project would not have an effect on the ability of other public services to maintain their service levels, and would have no impact associated with the provision of new or physically altered facilities for libraries, hospitals, or other civic uses.

Significance: No Impact.

5.14.5 References Cited

CAL FIRE (California Department of Forestry and Fire Protection). 2008. "San Mateo County Very High Fire Hazard Severity Zones in LRA as Recommended by CAL Fire" [map]. November 24, 2008. Accessed December 15, 2013. http://www.fire.ca.gov/fire_prevention/fhsz_maps_sanmateo.php.

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5.15 Recreation

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

5.15.1 Regulatory Setting

Federal and State

There are no relevant federal or state policies related to recreation.

Local

There are no relevant General Plan or LCP policies related to recreation.

5.15.2 Environmental Setting

The proposed project alignment is located within the rights-of-way (ROWs) of Highway 1 (Hwy 1) and adjacent county roads. Hwy 1 provides access to abundant recreational opportunities along the Pacific Ocean coastline, including fishing, hiking, backpacking, and bird watching. The natural resources along Hwy 1 also provide travelers and local residents with more passive recreation related to observing the scenery and the natural environment in the area.

Año Nuevo State Park is located off Hwy 1 to the west. The state park was established to preserve and protect the scenic, biological, ecological, and cultural values of the central California coastline, including Año Nuevo Island and properties on the western slope of the coast range inland from Año Nuevo Point. The park is the site of the largest mainland breeding colony in the world for the northern elephant seal (*Mirounga angustirostris*), and the interpretive program attracts increasing numbers of winter visitors to the park (California State Parks 2012, as cited in ICF 2013).

Other recreation resources near the project area include Lake Lucerne, Costanoa Lodge and Campground/KOA, Pigeon Point Light Station, Bean Hollow State Beach, and numerous other beaches and their associated coastal hiking trails (California State Parks 2012, as cited in ICF 2013). Lake Lucerne, a reservoir east of Hwy 1, supports fishing and bird watching activities. Costanoa Lodge and Campground/KOA, a private resort east of Hwy 1 on Rossi Road, offers a variety of overnight accommodations including tent cabins, recreational vehicle (RV) campsites, and equestrian campsites on private land, as well as access to public trails within Año Nuevo State Park. In addition to its historic lighthouse, Pigeon Point Light Station State Historic Park offers overnight hostel accommodations, hiking trails, wildlife viewing, and picnic facilities. Bean Hollow State Beach and numerous other beaches along Hwy 1 provide coastal beach access and associated activities such as picnicking, hiking, and tidepooling.

5.15.3 Applicant Proposed Measures

The Applicant will integrate the following applicant proposed measure (APM) into proposed project design and implementation.

APM-REC-1 The Applicant will:

- Schedule construction to avoid peak use periods (e.g., weekends and holidays) for recreational facilities.
- All ground surfaces will be restored as close to pre-project conditions as soon as possible or practicable.

5.15.4 Environmental Impacts and Mitigation

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

Increases in demand for recreational facilities are typically associated with substantial increases in population. The proposed project would not involve a residential component that would result in increased use of existing parks and recreational facilities. As discussed in Section 5.13, Population and Housing, the Applicant anticipates up to 20 Bay Area construction workers would be employed per day during the approximately 2-month construction period. If any of these temporary construction workers choose to use these facilities during the construction period, adequate capacity exists to accommodate the associate increase; therefore, substantial physical deterioration of the facilities would not occur. Project operation would have no effect with respect to the use or substantial

deterioration of parks. Project maintenance would be infrequent and would not substantially increase park use above existing levels. Therefore, impacts to recreational facilities from implementation of the proposed project would be less than significant.

The Applicant has identified an additional measure under APM-REC-1 that would further reduce impacts to recreational facilities, by scheduling construction activities to avoid peak use periods. Use of recreational facilities by temporary construction workers during the construction period would not add to peak periods of use. Therefore, integration of this APM into project design would further reduce this already less than significant impact.

Significance: Less than Significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? No Impact.

The proposed project does not include recreational facilities or require the construction or expansion of any recreational facilities; therefore, no impact would occur.

Significance: No Impact.

3.15.5 References Cited

ICF International. 2013. *Crown Castle Network San Mateo County Project, Amended Proponent's Environmental Assessment*. Prepared for Crown Castle NG West Inc. August 2013.

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5.16 Transportation and Traffic

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC – Would the project:				
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
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?	☐	☐	☒	☐

5.16.1 Regulatory Setting

Federal

There are no applicable federal regulations or policies related to transportation and traffic for the proposed project.

State

The California Department of Transportation (Caltrans) is the state agency tasked with improving and maintaining roads in the State of California. In areas with designated state routes, the state has the responsibility to maintain these roadways, while the local jurisdiction is

responsible for maintaining local roads. In addition to improving and maintaining state routes, Caltrans has discretionary authority to issue permits for the placement of encroachments within, under, or over the state highway rights-of-way (ROWs) (Caltrans 2013). For the proposed project, an encroachment permit from Caltrans would be required to conduct construction activities along and install underground conduit in the shoulder of Highway 1 (Hwy 1).

Local

San Mateo County General Plan

Chapter 12, Transportation, of the San Mateo County General Plan (County of San Mateo 1986a 1986b) discusses the County's existing transportation system and establishes goals and objectives related to management of the system. Goals and objectives are issues that the County strives to address; therefore, there no relevant policies pertaining to the proposed project.

Although there is no striping or markings, Hwy 1 is designated by the County as an existing bicycle lane or route in the Bicycle Plan component of the General Plan (County of San Mateo 1986a).

San Mateo County Local Coastal Program

Chapter 2 (i.e., the Public Works Component) of the San Mateo County Local Coastal Program contains objectives related to roads in coastal areas. Objective 2.49 discusses the desired Level of Service (LOS) on coastal roads:

> 2.49 Desired Level of Service
>
> In assessing the need for road expansion, consider Service Level D acceptable during commuter peak periods and Service Level E acceptable during recreation peak periods.

San Mateo County Congestion Management Program

The primary purpose of the County's Congestion Management Program (CMP) is to "identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion and promote countywide solutions" (C/CAG of San Mateo County 2011). The CMP roadway system includes all of the state highways within the County including Hwy 1. Chapter 2 of the CMP document establishes LOS standards for roadways in the CMP system. LOS is a qualitative term used to describe a roadway's operating condition and is designated by a letter grade ranging from A to F. LOS A represents free-flowing conditions with little or no delay, and LOS F represents forced flow with excessive delays (C/CAG of San Mateo County 2011). The LOS standard for the segment of Hwy 1 included in the proposed project area is LOS D, which represents a scenario approaching unstable traffic flow.

5.16.2 Environmental Setting

The proposed project would be located in a rural, unincorporated area of San Mateo County that supports agricultural, public recreation, and open space uses. The proposed project area features a limited roadway network consisting primarily of a two-lane state highway and small local roads. Private automobile is the dominant mode of transportation in the region. No public transit or rail service is available in the proposed project area.

Regional Roadways

Regional access to the proposed project area is provided by Hwy 1 (i.e., the Cabrillo Highway), a coastal, two-lane, north–south state highway that traverses San Mateo County and provides access to Santa Cruz County to the south and the City of San Francisco to the north. In 2011, according to the San Mateo County CMP, traffic on Hwy 1 in the proposed project area operated at LOS B (C/CAG of San Mateo County 2011). This represents stable operations with passing demand approaching passing capacity. Caltrans traffic count data indicates that year 2012 average annual daily traffic (AADT) volume on Hwy 1 in the proposed project area was approximately 3,900 vehicles, with a peak hourly traffic volume of 380 vehicles (Caltrans 2012a). In 2011, AADT volume and peak hourly traffic volume on Hwy 1 was similar as in 2012 (approximately 4,000 vehicles and a peak hourly traffic volume of 390 vehicles) (Caltrans 2011). Construction of the proposed project would occur within the ROW of Hwy 1 and two local roads.

Local Roadways

In addition to the Hwy 1 ROW, construction of the proposed project would occur within the ROW of Pigeon Point Road and Bean Hollow Road. Both roads are located along the northern portion of the proposed project alignment. Pigeon Point Road, a small two-lane road, provides inland access to rural residences and agricultural operations as well as coastal access to Pigeon Point Light Station State Historic Park and Pigeon Point Lighthouse Hostel. Bean Hollow Road, a small, two-lane roadway, also provides access to rural residential and agricultural land uses near Pigeon Point Road as well as near Lake Lucerne east of Hwy 1. Both Pigeon Point Road and Bean Hollow Road experience relatively low traffic volumes.

Bicycle and Pedestrian Transportation

Bicycle facilities include bike paths, lanes, and routes. Bike paths are paved trails separated from the road, bike lanes are lanes on roads designated for bicycle use by striping and signs, and bike routes are roadways designated for bicycle use but without additional width for the establishment of a designated lane. Although there is no striping or markings, Hwy 1 is designated by the San Mateo County Bicycle Plan (a component of the General Plan) as an existing bicycle lane or route (County of San Mateo 1986a).

Pedestrian facilities (i.e., sidewalks, crosswalks, and pedestrian signals) are not located along Hwy 1, Pigeon Point Road, or Bean Hollow Road in the proposed project area.

Airports

The nearest public airport to the project alignment is the Half Moon Bay Airport located approximately 19 miles north of the proposed project alignment near Watsonville. The nearest private airport to the project alignment is the Las Trancas Airport located approximately 1.5 miles southeast of the proposed project alignment near Davenport.

5.16.3 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measures (APMs) into the design and implementation of the proposed project.

APM-TRA-1

- As deemed necessary by the applicable jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction.
- Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) will be used to minimize impacts to traffic flow.
- Develop circulation and detour plans to minimize impacts to local street circulation. This will include the use of signage and flagging to guide vehicles through and/or around the construction zone.
- Schedule truck trips outside of peak morning and evening commute hours.
- Limit lane closures during peak hours to the extent possible.
- Use haul routes minimizing truck traffic on local roadways to the extent possible.
- Include detours for bicycles and pedestrians in all areas potentially affected by project construction.
- Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.
- Store construction materials only in designated areas.
- Coordinate with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary.

APM-TRA-2 To avoid impeding emergency vehicle traffic around the construction activities, develop an Emergency Vehicle Access Plan that includes the following:

- Evidence of advanced coordination with emergency service providers, including but not necessarily limited to police departments, fire departments, ambulance services, and paramedic services;
- Emergency service providers will be notified of the proposed project locations, nature, timing, and duration of any construction activities, and will be asked for advice about any road access restrictions that could impact their response effectiveness; and
- Project construction schedules and routes designed to avoid restricting movement of emergency vehicles to the best extent possible. Provisions to be ready at all times to accommodate emergency vehicles at locations where access to nearby properties may be blocked. Provisions could include the use of platings over excavations, short detours, and/or alternate routes.

APM-TRA-3 Prepare and implement a traffic safety plan and coordinate with local transportation and emergency response agencies to avoid potential roadway safety hazards.

APM-TRA-4 Limit all parking to right-of-way and pre-approved staging areas to address the increased parking demand created by construction activities.

5.16.4 Environmental Impacts and Mitigation

a) Would the project 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? Less than Significant.

The San Mateo County LCP considers LOS D on coastal roads to be acceptable during peak commuting periods, and the County CMP establishes LOS D as the LOS standard for Hwy 1. According to the CMP, in 2011 Hwy 1 operated under LOS B conditions. Construction of the proposed project would occur over an approximate 8-week period, and a total of fewer than 10 vehicles would be utilized by construction crews. The addition of fewer than 10 vehicles to Hwy 1 traffic volumes (approximately 3,900 AADT in 2012) during construction would not degrade existing LOS B conditions and would not conflict with the LCP or the CMP as it relates to acceptable LOS on coastal roads or the established LOS standard for Hwy 1. In addition, as indicated in APM-TRA-4 construction vehicles would park in approved road rights-of-way (and staging areas) to

avoid possible parking issues in public lots along Hwy 1, which would reduce potential conflicts with public coastal access. Operations would not generate any traffic, and maintenance activities would consist of periodic inspection of project route facilities by a single pickup truck. The addition of one vehicle to traffic volumes would not degrade existing LOS B conditions or conflict with LOS standards established by the LCP or the CMP. Therefore, impacts would be less than significant and implementation of APM-TRA-4 during construction would further reduce this already less than significant impact.

Regarding other forms of traffic, pedestrian facilities are not located along Hwy 1, Pigeon Point Road, or Bean Hollow Road in the proposed project area, and southwestern San Mateo County is located outside of the current coverage area of the San Mateo County Transit District. The San Mateo County General Plan designates Hwy 1 as an existing bicycle route or lane; however, it does not establish measures of effectiveness for bicycle operations. As there are no applicable plans, ordinances, or policies regarding pedestrian, bicycle, and transit traffic and measures of effectiveness, no conflicts and therefore no impact would occur.

Significance: Less than Significant.

b) Would the project 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? Less than Significant.

Construction of the proposed project would not conflict with the LOS D standard established for Hwy 1 in the San Mateo County CMP. Refer to criterion a) above. The small amount of traffic generated during construction of the proposed project (a total of fewer than 10 vehicles would be used by construction crews over the 8-week construction period) would not result in degradation of the existing LOS B condition of Hwy 1 in the project area. Therefore, because construction traffic would not cause LOS on Hwy 1 to fall below LOS D, impacts would be less than significant. Preparation and implementation of a traffic safety plan (APM-TRA-3) and would further reduce this already less than significant impact.

Operations would not generate any traffic, and maintenance activities would be minimal consisting of periodic (typically annually) inspection by patrol in a single pickup truck of the proposed project facilities. The addition of a single vehicle on Hwy 1 on an annual basis would not affect LOS operating conditions on the highway, and therefore, impacts would be less than significant.

Significance: Less than Significant.

c) Would the project 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? No Impact.

The nearest general aviation airport, Half Moon Bay Airport, is located approximately 19 miles north of the proposed project alignment near Watsonville. A private use airport, Las Trancas Airport, is located approximately 1.5 miles southeast of the proposed project alignment near Davenport.

The proposed project does not include any elements that would result in a change in air traffic patterns including an increase in traffic levels. Therefore, no impact would occur in this regard.

Antennae and pole-top extenders would be installed on existing and replacement poles increasing the height of the node poles by a total of 9 feet. This increase, however, would not obstruct navigable airspace. Construction and maintenance activities would likewise have no effect on navigable airspace or other potential safety hazard associated with airports. Therefore, the proposed project would not result in substantial safety risks related to air traffic, and no impact would occur.

Significance: No Impact.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? No Impact.

The proposed project does not include potentially hazardous design features such as sharp curves or dangerous intersections. In addition, the proposed project would not introduce an incompatible use to the existing transportation network and would not result in substantially increased hazardous conditions. Construction activities would occur within or near the public ROWs along Hwy 1, Pigeon Point Road, and Bean Hollow. Road and construction crews would utilize the shoulder of roads to perform various activities. While construction activities would occur in close proximity to highway and local road traffic, the proposed project consists primarily of the installation of a new utility within an existing utility corridor. As such, the proposed project would not be an incompatible use. Since the proposed project would not include potentially hazardous design features and would not be an incompatible use along the existing transportation network, no impact would occur.

Significance: No Impact.

e) Would the project result in inadequate emergency access? Less than Significant.

While the addition of a small number of construction vehicles to existing Hwy 1 traffic volumes would not result in substantial delay that could affect emergency access, the proposed project alignment is primarily located within or near a public road ROW, and construction crews would temporarily work from cordoned off areas in the Hwy 1 shoulder. Since the work would be confined to the shoulder, no traffic lane closures would be required on Hwy 1. As such, work along Hwy 1 would not restrict the movement of emergency vehicles through the proposed project area. Temporary lane closures could be required to accommodate work within other public road ROWs, and during these instances, flaggers would be used to direct traffic in the construction zone. Temporary lane closures and the use of flaggers would result in temporary traffic delays (typical delays would average 1 to 2 minutes) that could restrict the movement of emergency vehicles on Pigeon Point Road and Bean Hollow Road. To avoid impeding emergency vehicle traffic during the construction period, the project Applicant would integrate traffic control measures as delineated in APM-TRA-1 and APM-TRA-2, which would include preparation and implementation of a Traffic Control and Emergency Vehicle Access Plan. Therefore, with integration of APM-TRA-1 and APM-TRA-2 into proposed project design, potential impacts on emergency access would be less than significant. Preparation and implementation of a traffic safety plan (APM-TRA-3) and would further reduce this already less than significant impact.

Project operations would not generate any traffic and periodic maintenance inspections would not require temporary lane closures that would restrict the movement of vehicles. Therefore, operation and maintenance activities would not result in inadequate emergency access through the project area and as such, no impact would occur.

Significance: Less than Significant.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? Less than Significant.

The General Plan, the San Mateo County CMP, and LCP do not contain public transit, bicycle, or pedestrian facility policies applicable to the proposed project. Hwy 1 is however designated by the San Mateo County General Plan as an existing bike lane or route. While construction would not conflict with the designation of the highway as a bicycle facility, construction activities would occur within or near a public road ROW. Temporary closure of the highway shoulder would likely to be required; therefore,

construction could affect the safety of the highway as a bicycle lane or route. Integration of APM-TRA-1 into the proposed project design would reduce potential conflicts between construction activities and bicycle travel by identifying detours for bicycles in all areas potentially affected by construction activities and by installing traffic control devices in construction work zones. In addition, construction warning signs and notices would be posted along the highway to alert cyclists of construction activities and in accordance with the California Manual on Uniform Traffic Control Devices. Bicycle traffic would be provided with access and "reasonable safe and effective" passage through or around areas where temporary traffic control is installed (Caltrans 2012b). Therefore, with integration of APM-TRA-1 into proposed project design and through adherence with existing Caltrans regulations, construction activities would not substantially affect the safety of the highway as a bicycle lane or route, and impacts would be less than significant.

No traffic would be generated by the proposed project during operations, and periodic maintenance inspections would not conflict with or affect the overall safety of Hwy 1 as a bicycle lane or route. As such, no impacts would occur during the operation and maintenance phase of the proposed project.

Significance: Less than Significant.

5.16.5 References Cited

Caltrans (California Department of Transportation). 2011. "2011 Traffic Volumes on the California State Highway System." Accessed December 12, 2013. http://traffic-counts.dot.ca.gov/2011TrafficVolumesAug2012.pdf.

Caltrans. 2012a. "2012 Traffic Volumes on California State Highways." Accessed December 12, 2013. http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2012TrafficVolumes.pdf.

Caltrans. 2012b. *California Manual on Uniform Traffic Controls Devices – Temporary Traffic Control*. 2012 ed. State of California Business, Transportation and Housing Agency. http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/CAMUTCD2012_TTC.pdf.

Caltrans. 2013. "Encroachment Permits." Caltrans. Accessed December 12, 2013. www.dot.ca.gov/hq/traffops/developserv/permits.

C/CAG of San Mateo County (City/County Association of Governments of San Mateo County). 2011. *Final San Mateo County Congestion Management Program.* November 2011.

County of San Mateo. 1986a. *San Mateo County General Plan*. November 1986. Accessed December 17, 2013. http://www.co.sanmateo.ca.us/vgn/images/portal/cit_609/10073472gp_polis.pdf.

County of San Mateo, 1986b. *San Mateo County General Plan Policies*. Department of Environmental Management. November 1986.

5.17 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

5.17.1 Regulatory Setting

Federal

There are no applicable federal policies related to utilities or service systems for the proposed project.

State

California Public Utilities Commission General Order 95

The Applicant is required to comply with CPUC General Order 95, which institutes requirements for overhead line design, construction, and maintenance (CPUC 2012). The order specifies requirements

for join-use poles including clearances, inspection schedules, and coordination requirements intended to minimize conflicts among utility supply lines and telecommunications facilities.

Local

There are no relevant General Plan or LCP policies related to utilities or service systems.

5.17.2 Environmental Setting

The proposed project alignment is located within a currently developed utility corridor within the rights-of-way (ROWs) of the Highway 1 (Hwy 1) transportation corridor and two county roads, Pigeon Point Road and Bean Hollow Road. Utilities present in the area include water, electricity, and telephone service.

Currently, there are no DAS broadband networks serving this rural area. The existing Verizon Wireless macro cellular tower, built in 2008, is on the Bay Flower Company property at 1000 Bean Hollow Road and consists of a 45-foot-tall monopole permitted for six panel antennae. To date, Verizon has installed three of the six permitted panel antennae. The second Verizon Wireless cellular tower is located at 440 Pigeon Point Road approximately 1 mile east of Hwy 1, on a 495-square-foot leased area within a parcel that houses a single-family residence, commercial stable facilities, an existing AT&T cellular facility, and a sheriff's repeater.

5.17.3 Applicant Proposed Measures

The proposed project will integrate the following applicant proposed measure (APM) into the design and implementation of the proposed project.

APM-USS-1 Recycle and dispose of construction materials to minimize generation of solid waste resulting from construction activities.

5.17.4 Environmental Impacts and Mitigation

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? No Impact.

The proposed project would not generate or discharge wastewater during operation and maintenance; therefore, no impact would occur.

Construction activities could generate limited quantities of waste, such as drilling fluid (e.g., bentonite clay and water). Drilling fluid generated during horizontal directional drilling (HDD) activities would be collected and disposed of at a facility permitted to

accept the waste. If required, the construction contractor would place portable toilets in locations of more prolonged construction activities, such as the HDD site. Portable toilets would be installed, serviced, and removed by a permitted service provider. The potential effects of dewatering activities are discussed in Section 5.9, Hydrology and Water Quality, and were found to have less-than-significant effects on water quality. Construction activities would not otherwise generate wastewater.

For these reasons, the proposed project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board.

Significance: No Impact.

b) Would the project 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? No Impact.

The proposed project would not directly or indirectly require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities; therefore, no impact would occur.

Significance: No Impact.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? No Impact.

The proposed project would not directly or indirectly require or result in the construction of new stormwater drainage facilities or expansion of existing facilities; therefore, no impact would occur.

Significance: No Impact.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? No Impact.

Operations and maintenance would not require water or need to use any water entitlements or resources. Limited quantities of water may be needed during the construction phase of the proposed project. However, water needed for construction activities would be obtained by the project contractor from local municipal water sources

such as the City of Santa Cruz. For these reasons, the proposed project would not require new or expanded entitlements; therefore, no impact would occur.

Significance: No Impact.

e) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? No Impact.

The proposed project because would not directly or indirectly require wastewater treatment services; therefore, no impact could occur.

Significance: No Impact.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Less than Significant.

Operation of the project would not continually generate wastes requiring disposal at a landfill. Construction and periodic maintenance of the proposed project could generate limited quantities of solid waste associated with spent materials, and would require disposal of limited quantities of soil and drilling muds associated with underground installation activities. However, these wastes would be disposed of at the nearest permitted landfill. Excavated soil would generally be used to backfill temporary excavations, and to restore the original grade and site surface. Any soil or construction material remaining would be recycled and/or disposed of to minimize generation of solid waste resulting from construction activities, per APM-USS-1.

Disposal facilities with sufficient capacity that are permitted to accept construction and demolition debris are available in San Jose, such as the Guadalupe Rubbish Disposal Company (Waste Management 2013). Construction of the proposed project would require disposal of materials, but in such limited quantities that it would not appreciably reduce the landfill's permitted capacity. Therefore, impacts would be less than significant.

Significance: Less than Significant.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste? No Impact.

The proposed project would not include any activities that are inconsistent with or contrary to federal, state, and local statutes and regulations related to solid waste; therefore, no impact would occur.

Significance: No Impact.

5.17.5 References Cited

CPUC (California Public Utilities Commission). 2012. General Order 95: Overhead Electric Line Construction.

Waste Management. 2013. "Guadalupe Rubbish Disposal Co." Waste Management – Find a Location. Accessed December 26, 2013. www1.wmsolutions.com/facilities/details/id/190.

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5.18 Mandatory Findings of Significance

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

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

The proposed project has the potential to degrade the quality of the environment. The proposed project does not have the potential to substantially reduce the habitat of fish or wildlife species, reduce the number or restrict the range of a rare or endangered plant or animal, or cause a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate a plant or animal community or eliminate important examples of the major periods of California history or prehistory. As discussed in the Aesthetics, Air Quality, Cultural Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise and Transportation and Traffic sections of this IS/MND, impacts associated with the proposed project, predominantly temporary impacts as a result of construction, would be less than significant with integration of Applicant Proposed Measures.

As described in the Biological Resources section, the proposed project could result in a potentially significant impact to the Monterey pine community should pine pitch canker be introduced in to the Año Nuevo population and to coast live oak communities should the Sudden Oak Death pathogen be spread within the proposed project area. However, adoption and implementation of Mitigation Measure BIO-1, would reduce this impact to a less-than-significant level.

Significance: Less than Significant with Mitigation.

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

The proposed project does not have impacts that are individually limited but cumulatively considerable. CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental contribution to a significant cumulative effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. An incremental, project-specific contribution to a cumulative impact is less than cumulatively considerable, and thus is not significant, if, for example, the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness.

CEQA Guidelines Section 15130(b) identifies the following three elements as necessary for an adequate cumulative analysis:

- A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the Lead Agency; or a summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions.
- A summary of expected environmental effects to be produced by those projects. The summary shall include specific reference to additional information stating where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects and an examination of reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project.

This section analyzes the cumulative impact of construction, operation, and maintenance of the proposed project taking into account the effects in common with other past, present, and reasonably anticipated future projects. Past projects include completed projects whose long-term effects are closely related either in time or space (i.e., temporally or in geographic proximity) to the effects of the proposed project. Present projects are those being constructed, installed or implemented concurrently with the preparation of this environmental document. Reasonably anticipated future projects include those for which there are existing decisions, funding, formal proposals, or which are highly probable, based on known opportunities or trends.

To determine the extent of the cumulative scenario for the proposed project, the California Public Utilities Commission (CPUC) contacted San Mateo County (Holbrook, pers. comm. 2013), and the California Department of Transportation (Caltrans) (Patel, pers. comm. 2013), for information on present or reasonably anticipated future projects within their respective jurisdictions in proximity to the proposed project. In addition, the Applicant, after consulting with Año Nuevo State Park, confirmed that the Park Service would not be undertaking any reasonably foreseeable future projects (ICF 2013). No projects were identified. Past projects that are closely related in space include the following:

- The existing utility lines (i.e., electric, cable, and telephone) within the same ROW as the proposed project
- Highway 1 and other local roadways that generally parallel the existing utility ROW.

Impacts resulting from construction of the proposed project would not result in a cumulative impact because there are no present or reasonably anticipated future projects to which the proposed project could overlap. In regards to past projects, construction activities have ceased; therefore, no effects in common exist, and no cumulative impact could occur in this regard.

The only issue area that had a potentially significant impact (and thus a potential cumulatively considerable impact) was biological resources (with respect to Monterey pine). In this case, the long-term effects of past projects have reduced the extent and continuity of Monterey pine forest to a few remnant stands, such that even minor potential impacts would be considered significant. However, this impact was mitigated to a less-than-significant level with implementation of Mitigation Measure Bio-1, and thus also to level that is less than cumulatively considerable.

Impacts resulting from operation and maintenance of the proposed project are captured in Sections 5.1, Aesthetics, through 5.17, Utilities and Service Systems, where the existing conditions reflects the cumulative scenario, which is a combination of the

natural condition and the effects of past actions. If there were an existing cumulative significant condition, the proposed project's incremental contribution would not be cumulatively considerable because of the small scale and/or short duration of activities associated with the operation and maintenance of the proposed project. Operationally, the proposed project would introduce one fiber-optic line and two antennae, pole extenders, and associated equipment on five node poles into the physical environment. As discussed in Section 5.1, Aesthetics, the visual change that would be observed would be incremental and minor. Maintenance activities (e.g., minor repairs, tree trimming), which are already occurring for the existing utility lines, would be limited to the existing utility right-of-way (ROW) typically accessed from shoulder of Highway 1 (Hwy 1) and other local roads. As discussed in Chapter 5, because maintenance activities are minor and of short duration and similar to the existing conditions, the incremental change resulting from the proposed project would be imperceptible and therefore less than significant. Therefore, when the proposed project is considered in light of these past projects, while having individually limited effects, it would not be cumulatively considerable, and impacts would be less than significant.

Significance: Less than Significant.

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

With integration of Applicant Proposed Measures into project design, the proposed project would not have the potential to have environmental effects that could cause substantial direct or indirect adverse effects on human beings because the proposed project's impacts relating to Hazards and Hazardous Materials, Noise, and Transportation and Traffic would all be less-than-significant impacts.

Significance: Less than Significant.

5.18.1 References

Holbrook, D. 2013. "San Mateo County Planning." Telephone call between D. Holbrook (San Mateo County) and I. Fischer (Dudek). November 26, 2013.

ICF International. 2013. *Crown Castle Network San Mateo County Project, Amended Proponent's Environmental Assessment*. Prepared for Crown Castle NG West Inc. August 2013.

Patel, L. 2013. "Highway 1 projects for Q4 2104 and Q1 2015." Telephone call between L. Patel (Caltrans Encroachment Permit Office) and I. Fischer (Dudek). November 26, 2013.

6.0 LIST OF PREPARERS AND AGENCY CONSULTATION

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6.3 Agency Consultation

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APPENDIX A

Noise Appendix

FHWA - HIGHWAY TRAFFIC NOISE PREDICTION MODEL

(modified for CNEL)

DUDEK

PROJECT:	Crown Castle San Mateo County	JN:	7841
ROADWAY:	Highway 1	DATE:	19-Dec-2013
LOCATION:	**50 Feet from Centerline**	BY:	J. Leech

ADT	5500			PK HR VOL	550
SPEED	55				
PK HR %	10				
DIST CTL	50				
DIST N/F	52	(M=76,P=52,S=36,C=12)	AUTO SLE DISTANCE		42.7
DIST WALL	0		MED TRUCK SLE DIST		42.8
DIST W/OB	50		HVY TRUCK SLE DIST		43.5
HTH WALL	0.0	********			
HTH OBS	0.0				
AMBIENT	45.0				
ROADWAY VIEW:					
LF ANGLE	-10				
RT ANGLE	10				
DF ANGLE	20				

SITE CONDITIONS:		(10=HARD SITE, 15=SOFT SITE)			
AUTOM	15.0				
MED TR	15.0				
HVY TR	15.0				
BARRIER	0	(0=WALL,1=BERM)			
ELEVATIONS:					
PAD	0.0	AUTOMOBILES =	0.00		
ROAD	0.0	MEDIUM TRUCKS=	2.30		
		HEAVY TRUCKS =	8.01		
GRADE:	0.0 %	GRADE ADJUSTM=	0.0	(TO HEAVY TRUCKS)	

VEHICLE DISTRIBUTION:

	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.127	0.096	0.9360
MEDIUM TRUCKS	0.874	0.051	0.075	0.0370
HEAVY TRUCKS	0.891	0.028	0.081	0.0230

NOISE IMPACTS WITHOUT TOPO OR BARRIER SHIELDING:

	LEQ PK HR	LEQ DAY	LEQ EVE	LEQ NIGHT	CNEL
AUTOMOBILES	63.4	61.5	59.7	53.7	62.9
MEDIUM TRUCKS	60.0	58.6	52.3	49.2	58.7
HEAVY TRUCKS	61.8	60.5	51.6	51.3	60.5
VEHICULAR NOISE	66.7	65.1	60.9	56.6	65.8

NOISE IMPACTS WITH TOPO AND BARRIER SHIELDING:

	LEQ PK HR	**LEQ DAY**	LEQ EVE	LEQ NIGHT	CNEL
VEHICULAR NOISE	65.5	**63.9**	59.7	55.3	64.6

AMBIENT:	W/O AMBIENT		W/ AMBIENT
LEQ PK HR WITHOUT TOPO OR BARRIER	66.7		66.8
LEQ PK HR WITH TOPO OR BARRIER	65.6	*******	65.7
CNEL WITHOUT TOPO AND BARRIER	65.8		65.9
CNEL WITH TOPO AND BARRIER	64.6	*******	64.6

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/21/2013
Case Description:

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
50 Ft Repesentative Residence	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	50	0
Flat Bed Truck	No	40		74.3	50	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Day Lmax
Man Lift		74.7	67.7	N/A
Flat Bed Truck		74.3	70.3	N/A
	Total	74.7	72.2	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
90 Ft Representative Residence	Residential	55	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	90	0
Flat Bed Truck	No	40		74.3	90	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Day Lmax
Man Lift		69.6	62.6	N/A
Flat Bed Truck		69.1	65.2	N/A
	Total	69.6	67.1	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
135 Ft Representative Residence	Residential	55	50	45

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	135	0
Flat Bed Truck	No	40		74.3	135	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq	Day Lmax
Man Lift	66.1	59.1	N/A
Flat Bed Truck	65.6	61.6	N/A
Total	66.1	63.6	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
250 Ft Rep. Residence	Residential	50	50	45

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	250	0
Flat Bed Truck	No	40		74.3	250	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq	Day Lmax
Man Lift	60.7	53.7	N/A
Flat Bed Truck	60.3	56.3	N/A
Total	60.7	58.2	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #5 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
400 Ft. Rep. Residence	Residential	50	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	400	0
Flat Bed Truck	No	40		74.3	400	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Day Lmax
Man Lift		56.6	49.6	N/A
Flat Bed Truck		56.2	52.2	N/A
	Total	56.6	54.1	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
500 Ft. Rep. Residence	Residential	50	50	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	500	0
Flat Bed Truck	No	40		74.3	500	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Day Lmax
Man Lift		54.7	47.7	N/A
Flat Bed Truck		54.3	50.3	N/A
	Total	54.7	52.2	N/A

*Calculated Lmax is the Loudest value.

Report date: 12/21/2013
Case Description: Crown Castle San Mateo - Trenching/Buried Cable

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
135 Ft. Representative Res.	Residential	65	61	57

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	135	0
Dump Truck	No	40		76.5	135	0
Flat Bed Truck	No	40		74.3	135	0
Compactor (ground)	No	20		83.2	135	0

Results

	Calculated (dBA)		Day
Equipment	*Lmax	Leq	Lmax
Excavator	72.1	68.1	N/A
Dump Truck	67.8	63.8	N/A
Flat Bed Truck	65.6	61.6	N/A
Compactor (ground)	74.6	67.6	N/A
Total	74.6	72.1	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
500 Ft. Representative Res.	Residential	59	55	51

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	500	0
Dump Truck	No	40		76.5	500	0
Flat Bed Truck	No	40		74.3	500	0
Compactor (ground)	No	20		83.2	500	0

Results

	Calculated (dBA)		Day
Equipment	*Lmax	Leq	Lmax

Equipment		*Lmax	Leq	Lmax
Excavator		60.7	56.7	N/A
Dump Truck		56.5	52.5	N/A
Flat Bed Truck		54.3	50.3	N/A
Compactor (ground)		63.2	56.2	N/A
	Total	63.2	60.7	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
900 Ft. Representative Res.	Residential	56	52	48

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	900	0
Dump Truck	No	40		76.5	900	0
Flat Bed Truck	No	40		74.3	900	0
Compactor (ground)	No	20		83.2	900	0

Results

	Calculated (dBA)		Day
Equipment	*Lmax	Leq	Lmax
Excavator	55.6	51.6	N/A
Dump Truck	51.3	47.4	N/A
Flat Bed Truck	49.1	45.2	N/A
Compactor (ground)	58.1	51.1	N/A
Total	58.1	55.6	N/A

*Calculated Lmax is the Loudest value.