# 3.3 AIR QUALITY

## 3.3.1 INTRODUCTION

This section discusses potential air quality issues associated with project construction, operation, and maintenance, including both regional and site-specific concerns, and concludes that impacts will be less than significant in these areas. The project will occur within the Bay Area Air Quality Management District (BAAQMD) and the Northern Sonoma County Air Pollution Control District (NSCAPCD). Emission evaluations follow California Environmental Quality Act (CEQA) guidance provided by BAAQMD for activities within their jurisdictions (NSCAPCD deferred to BAAQMD guidelines for this project). Primary air emissions from the project include construction emissions associated with fugitive dust, heavy construction equipment, helicopter usage, and construction workers commuting to and from the project site. Air emissions evaluated include carbon monoxide (CO), sulfur dioxide ($SO_2$), respirable particulate matter (defined as particulate matter less than 10 microns in aerodynamic diameter [$PM_{10}$]), fine particulate matter (defined as particulate matter less than 2.5 microns in aerodynamic diameter [$PM_{2.5}$]), reactive organic gases (ROGs), and nitrogen oxides ($NO_X$). Greenhouse gas (GHG) emissions are discussed separately in Section 3.7, Greenhouse Gas Emissions. The analysis concludes that impacts on air quality will be less than significant. Incorporation of the Applicant-Proposed Measures (APMs) described in Section 3.3.4.2 will further minimize potential less-than-significant impacts.

Emission calculations in this document were based on worst-case estimates of pollutant emissions to ensure presentation of a conservative environmental analysis. This analysis may be revised, as needed, to reflect changes to the project plans. The project's potential effects on air quality were evaluated using the criteria set forth in Appendix G of the CEQA Guidelines. The conclusions are summarized in Table 3.3-1 and discussed in more detail in Section 3.3.4.

**Table 3.3-1: CEQA Checklist for Air Quality**

| Would the project: | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☒ | ☐ |

| Would the project: | Potentially Significant Impact | Less-than-Significant Impact with Mitigation Incorporated | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

## 3.3.2 REGULATORY BACKGROUND AND METHODOLOGY

### 3.3.2.1 Regulatory Background

#### *Federal*

The Federal Clean Air Act (CAA) establishes the statutory framework for regulation of air quality in the United States. Pursuant to this act, the U.S. Environmental Protection Agency (USEPA) has established various regulations to achieve and maintain acceptable air quality, including the adoption of National Ambient Air Quality Standards (NAAQS), mandatory state implementation plan (SIP) or maintenance plan requirements to achieve and maintain NAAQS, and emission standards for both stationary and mobile sources of air pollution. National ambient air quality standards were established in 1970 for six pollutants: CO, ozone ($O_3$), $PM_{10,}$ $PM_{2.5}$, nitrogen dioxide ($NO_2$), $SO_2$, and lead (Pb). These pollutants are commonly referred to as criteria pollutants, because they are considered the most prevalent air pollutants known to be hazardous to human health. The USEPA designates a region that is meeting the air quality standard for a given pollutant as being in "attainment" for that pollutant; regions not meeting the federal standard are designated as being in "nonattainment" for that pollutant. If a region is designated as nonattainment for a NAAQS, the federal CAA requires the state to develop a SIP to demonstrate how the standard will be attained, including the establishment of specific requirements for review and approval of new or modified stationary sources of air pollution. The CAA Amendments of 1990 directed the USEPA to set standards for toxic air contaminants and required facilities to sharply reduce emissions. Table 3.3-2: Ambient Air Quality Standards and Status summarizes state and federal ambient air quality standards.

#### *State*

The California Air Resources Board (CARB) is the state agency responsible for California air quality management, including establishment of California Ambient Air Quality Standards (CAAQS), mobile source emission standards, and GHG regulations, as well as oversight of regional air quality districts and preparation of implementation plans, including regulations for stationary sources of air pollution. The CAAQS are generally more stringent, except for the 1-hour $NO_2$ and $SO_2$ standards, and include more pollutants than the NAAQS (see Table 3.3-2). California specifies four additional criteria pollutants: visibility reducing particles (VRP), sulfates, hydrogen sulfide ($H_2S$), and vinyl chloride. Similar to the USEPA, CARB designates counties in California as being in attainment or nonattainment for the CAAQS.

**Table 3.3-2: Ambient Air Quality Standards and Status**

| Pollutant | Averaging Time | CAAQS [a] | | NAAQS [b] | | |
|---|---|---|---|---|---|---|
| | | Standard | Status | Primary Standard [c] | Secondary Standard [d] | Status |
| Ozone ($O_3$) | 1 hour<br>8 hours | 0.09 ppm<br>0.070 ppm | N | --<br>0.075 ppm | --<br>0.075 ppm | N |
| Carbon monoxide (CO) | 1 hour<br>8 hours | 20 ppm<br>9.0 ppm | A | 35 ppm<br>9 ppm | --<br>-- | U |
| Nitrogen dioxide ($NO_2$) | 1 hour<br>Annual Arithmetic Mean | 0.18 ppm<br>0.030 ppm | A | 0.100 ppm [e]<br>0.053 ppm | --<br>0.053 ppm | U/A |
| Sulfur dioxide ($SO_2$) | 1 hour<br>3 hours<br>24 hours<br>Annual Arithmetic Mean | 0.25 ppm<br>--<br>0.040 ppm<br>-- | A | 0.075 ppm [f]<br>--<br>0. 14 ppm<br>0.030 ppm | --<br>0.5 ppm<br>--<br>-- | A |
| Particulate matter less than 10 microns ($PM_{10}$) | 24 hours<br>Annual Arithmetic Mean | 50 µg/m$^3$<br>20 µg/m$^3$ | N | 150 µg/m$^3$<br>-- | 150 µg/m$^3$<br>-- | U |
| Particulate matter less than 2.5 microns ($PM_{2.5}$) | 24 hours<br>Annual Arithmetic Mean | --<br>12 µg/m$^3$ | N | 35 µg/m$^3$<br>12 µg/m$^3$ | 35 µg/m$^3$<br>15 µg/m$^3$ | N |
| Lead (Pb) [g] | 30-day Average<br>Calendar Quarter<br>Rolling 3-month Average | 1.5 µg/m$^3$<br>--<br>-- | A | --<br>1.5 µg/m$^3$<br>0.15 µg/m$^3$ | --<br>1.5 µg/m$^3$<br>0.15 µg/m$^3$ | U/A |
| Visibility reducing particles (VRP) [g] | 8 hours | [h] | U | -- | -- | -- |
| Sulfates | 24 hours | 25 µg/m$^3$ | U | -- | -- | -- |
| Hydrogen sulfide ($H_2S$) | 1 hour | 0.03 ppm | U | -- | -- | -- |
| Vinyl chloride | 24 hours | 0.01 ppm | -- | -- | -- | -- |

Notes:
ppm = parts per million
µg/m3 = micrograms per cubic meter
U = Unclassified
A = Attainment
N = Nonattainment

-- = No standard has been adopted for this averaging time

[a] California Ambient Air Quality Standards for $O_3$, CO (except 8-hour Lake Tahoe), $SO_2$ (1 and 24 hour), $NO_2$, and particulate matter ($PM_{10}$, $PM_{2.5}$, and VRP) are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] National Ambient Air Quality Standards (other than $O_3$, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once per year. The $O_3$ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than 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 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

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

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

[e] 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 0.100 ppm.

[f] 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 0.075 ppm.

[g] 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.

[h] Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.

Source: CARB 2013a

The Air Toxic "Hot Spots" Information and Assessment Act (Assembly Bill 2588 or AB 2588) identifies toxic air contaminant hot spots where emissions from specific sources may expose individuals to an elevated risk of adverse health effects, particularly cancer or reproductive harm. Toxic air contaminants are also referred to as hazardous air pollutants. AB 2588 requires that a business or other establishment identified as a significant source of toxic emissions provide the affected population with information about health risks posed by the emissions.

### *Regional*

The project is located within the jurisdiction of the BAAQMD and the NSCAPCD. The BAAQMD and NSCAPCD are the regional agencies charged with preparing, adopting, and implementing emission control measures and standards for stationary sources of air pollution pursuant to delegated state and federal authority within their respective jurisdictions. Because the project will not involve construction of new stationary sources, no permitting regulations are relevant to the project. Under the California Clean Air Act, the BAAQMD is required to develop an air quality plan to achieve and/or maintain compliance with federal and state nonattainment criteria pollutants within the air district. The BAAQMD has taken action and developed plans to achieve and/or maintain compliance with the federal 1-hour $O_3$ standard and the federal CO standard. Additionally, recent monitoring data indicate that $PM_{2.5}$ levels have decreased in the Bay Area since 2008. As a result, CARB submitted a "clean data finding" request to the USEPA on behalf of the BAAQMD on December 8, 2011. The USEPA issued a Clean Data Finding for the Bay Area on January 9, 2013. The BAAQMD can now meet the federal $PM_{2.5}$ standard by preparing a re-designation request and a $PM_{2.5}$ maintenance plan or a "clean data" SIP submittal (BAAQMD 2013).

The BAAQMD adopted the BAAQMD CEQA Guidelines in December 1999 to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality (BAAQMD 1999). The BAAQMD CEQA Guidelines were updated in June 2010 and again in May 2011 to include reference to thresholds of significance adopted by the BAAQMD. On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance. As a result, the BAAQMD has been ordered by the court to set aside the June 2010/May 2011 thresholds of significance, and is no longer disseminating them or recommending that they be used as a generally applicable measure of a project's significant air quality impacts. Instead, lead agencies may continue to rely upon the BAAQMD's 1999 thresholds of significance and may continue to make determinations on significance based on substantial evidence in the record. Lead agencies may also rely on the BAAQMD's current CEQA Air Quality Guidelines (updated in May 2012) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures (BAAQMD 2012).

Lastly, the BAAQMD adopted the *Bay Area 2010 Clean Air Plan* (CAP) on September 15, 2010. The Bay Area 2010 CAP provides an integrated, multi-pollutant control strategy to reduce emissions and decrease ambient concentrations of harmful pollutants; 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 reduce GHG emissions to protect the climate (BAAQMD 2010a).

The NSCAPCD indicated that BAAQMD guidelines are sufficient for this project and declined to provide additional guidelines (NSCAPCD 2015).

#### *Local*

No local (city and county) air quality regulations are applicable to this project.

### 3.3.2.2 Methodology

Information on air quality impacts was collected from the BAAQMD's current CEQA Air Quality Guidelines. Short-term construction emissions of CO, $SO_2$, $PM_{10}$, and $PM_{2.5}$ were evaluated. Because $O_3$ is formed through chemical reactions in the atmosphere, the $O_3$ precursors $NO_x$ and ROG were also evaluated. Construction emissions (excluding those from helicopters), emissions from soil disturbance, and emissions from vehicle travel on paved and unpaved roads were estimated using *California Emissions Estimator Model Version 2013.2.2* (CalEEMod). Helicopter emissions were estimated manually using emissions factors obtained from the Swiss Federal Office of Civil Aviation (FOCA) and Federal Aviation Administration (FAA).

## 3.3.3 ENVIRONMENTAL SETTING

### 3.3.3.1 Regional Setting

The project site is located in central Sonoma County, between Fulton Substation in Fulton, and Fitch Mountain #1 Tap east of the Town of Windsor and the City of Healdsburg and on the eastern margin of the Santa Rosa Valley. Average annual wind speeds in the Santa Rosa Valley are approximately 5 miles per hour. In the immediate area, average summer temperatures peak in the low 80s Fahrenheit (F) and drop to the low 50s F, while average winter temperatures peak in the high 50s F and drop to the upper 30s F. Approximately 80 percent of annual rainfall in this area occurs during the period of November through March.

The Santa Rosa Valley sits in the Cotati Valley north of the Petaluma Valley and has natural barriers (mountains) to the north and east. The Petaluma Valley lies in line with Petaluma Gap, a band of low land south of the Santa Rosa Valley that extends from the Pacific Ocean to San Pablo Bay. As marine air travels east through the Petaluma Gap it splits, traveling northward to the Cotati Valley and southward into the Petaluma Valley. Due to the Cotati Valley's configuration, air pollutants may become concentrated during stagnant conditions. This could occur during periods of temperature variation within the day with low marine airflow through the Petaluma Gap. This situation could be aggravated by up-valley flow of warm air during the day from the Petaluma Valley becoming trapped against the mountains to the north and east (BAAQMD 2012).

Based upon review of the U.S. Geological Survey map detailing natural occurrence of asbestos in California, naturally occurring asbestos is not expected to be present at the project site (California Department of Conservation 2011).

#### 3.3.3.2 Ambient Air Quality

The project is located within two air basins. The first is the San Francisco Bay Air Basin (SFBAB), a region that extends from Sonoma and Napa counties in the north to Santa Clara County in the south, and includes all other counties bordering the San Francisco, San Pablo, and Suisun bays. The BAAQMD is the state regulatory body responsible for air quality-related activities in the SFBAB. The second is the North Coast Air Basin (NCAB), which includes Sonoma, Mendocino, Humboldt, and Del Norte counties. The NSCAPCD is the state regulatory body responsible for air quality-related activities in the portion of the NCAB in which the project is located.

The following three air quality designations can be given to an area for a particular pollutant:

- Non-attainment: This designation applies when air quality standards have not been consistently achieved.
- Attainment: This designation applies when air quality standards have been achieved.
- Unclassified: This designation applies when there are not enough monitoring data to determine if the area is non-attainment or attainment.

According to the CARB CAAQS, the SFBAB is designated non-attainment for $O_3$, $PM_{2.5,}$ and $PM_{10}$. These pollutants are discussed in more detail in the following sections. The SFBAB is designated attainment or unclassified for $NO_2$, $SO_2$, CO, $H_2S$, sulfate particulates, VRP, and Pb particulates. The NCAB is designated attainment or unclassified for $O_3$, $PM_{2.5}$, $PM_{10}$, $NO_2$, $SO_2$, CO, $H_2S$, sulfate particulates, VRP, and Pb particulates.

By federal standards, the SFBAB is designated as unclassified or attainment for all criteria pollutants, with the exception of $O_3$ and $PM_{2.5}$. The NCAB is designated as unclassified for all criteria pollutants by federal standards. Table 3.3-2 provides the California and federal air quality standards and attainment status.

### 3.3.4 APPLICANT-PROPOSED MEASURES AND POTENTIAL IMPACTS

The following sections describe significance criteria for air quality impacts derived from Appendix G of the CEQA Guidelines, provide APMs, and assess potential project-related construction and operational air quality impacts.

#### 3.3.4.1 Significance Criteria

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. Per Appendix G of the CEQA Guidelines, the potential significance of project-related impacts on air quality were evaluated for each of the criteria listed in Table 3.3-1, as discussed in Section 3.3.4.3.

Due to a court order, the BAAQMD does not recommend thresholds of significance. However, the BAAQMD's CEQA Guidelines published in May 2010 did propose construction-related

emissions thresholds. Lead agencies may rely on the BAAQMD's current CEQA Guidelines (updated in May 2012) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures (BAAQMD 2012). The NSCAPCD does not provide thresholds of significance for project construction, but NSCAPCD rule R1-1-130 (s2) does set significance thresholds—not relevant to this project—for operational emissions from a new or modified stationary source.

#### 3.3.4.2 Applicant-Proposed Measures

PG&E will implement the following APMs:

***Construction***

***APM AIR-1: Fugitive Dust Emissions***

Per BAAQMD CEQA guidelines, PG&E will implement the following fugitive dust control measures:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) in active construction zones shall be watered two times per day during dry conditions.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers or equivalent method at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles-per-hour.
- Post a publicly visible sign with the telephone number and person to contact at PG& regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

***APM AIR-2: Exhaust Emissions***

Per BAAQMD CEQA guidelines, PG&E will implement the following exhaust emission control measures.

- Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a

"common sense" approach to vehicle use. Clear signage shall be provided for construction workers at all access points indicating idling restrictions.

- All construction equipment will be regularly maintained in accordance with PG&E standards. All equipment shall be checked by a certified visible emissions evaluator.

### *Operation and Maintenance*

Other than the use of $SF_6$ circuit breakers (discussed in Section 3.6 Greenhouse Gas Emissions), operation and maintenance (O&M) activities that would affect air quality will not increase as a result of the project, and no operation APMs are proposed. PG&E will continue to employ standard Best Management Practices (BMPs)—such as minimizing vehicle trips and keeping vehicles and equipment well maintained—during operation of the project.

### 3.3.4.3 Potential Impacts

Project impacts on air quality were evaluated against the CEQA significance criteria, as discussed below. This section evaluates potential project impacts from both the construction phase and operation and maintenance phase.

The project includes reconductoring existing 60 kV and 230 kV electric utility lines between Fulton Substation and Fitch Mountain #1 Tap. The O&M activities required for the reconductored power and transmission lines will not increase from those currently required for the existing system; thus, no operation-related impacts related to air quality will occur. Therefore, the impact analysis is focused on construction activities that are required to install the new conductor, replace and remove poles, perform minor substation modifications, and establish required access and work areas, as described in Chapter 2.0, Project Description.

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

The applicable air quality plan is the Bay Area 2010 CAP. The primary goals of this plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. A project that would not result in significant and unavoidable air quality impacts may be considered consistent with the Bay Area 2010 CAP. While the BAAQMD does not recommend thresholds of significance due to a court order, these emissions are below the proposed construction-related emissions thresholds published in the BAAQMD CEQA Guidelines from May 2010. The May 2010 proposed thresholds are included in Table 3.3-3: Construction Emissions for comparison purposes.

As previously discussed in Section 3.3.3.2, emissions for a range of pollutants for off- and on-road vehicle were calculated using CalEEMod, and helicopter emissions were calculated manually using emissions factors obtained from FOCA and FAA. The estimated particulate matter emissions include two types of sources—fugitive dust and exhaust emissions. Typical fugitive dust sources include earth-moving activities (such as grading and improvement of access roads) and vehicle travel across unpaved roads. Exhaust emissions result from the combustion of fossil fuels in both off-road construction equipment and on-road vehicles. Average daily emission rates that will be generated as a result of construction are presented in Table 3.3-3:

Construction Emissions. These emissions are below the May 2010 proposed thresholds. Therefore, the project will not conflict with or obstruct implementation of the applicable air quality plan and will have no impact.

**Table 3.3-3: Construction Emissions**

| Category | Average Emission Rate (pounds per day) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Fugitive $PM_{2.5}$ | Exhaust $PM_{2.5}$ | Fugitive $PM_{10}$ | Exhaust $PM_{10}$ | $NO_x$ | $SO_x$ | CO | ROG |
| Average Daily Emissions w/o APMs | 0.0 | 1.7 | 0.1 | 1.8 | 47.5 | 2.6 | 38.7 | 20.0 |
| Average Daily Emissions w/ APMs | 0.0 | 1.6 | 0.1 | 1.7 | 45.2 | 2.5 | 36.7 | 19 |
| Comparison Threshold | BMPs | 54 | BMPs | 82 | 54 | - - | - - | 54 |

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

The estimated daily project emissions are provided in Table 3.3-3: Construction Emissions. Due to the short-term nature of these emissions and their compliance with available significance thresholds, impacts will be less than significant. The project will not violate any air quality standard or contribute significantly to an existing or projected air quality violation.

**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 Impact***

As shown in Table 3.3-3: Construction Emissions, construction of the project will lead to a temporary increase in criteria air pollutants. The project is partially located in an area currently designated as a nonattainment area for $O_3$, $PM_{2.5}$, and $PM_{10}$. However, due to the low quantity and temporary nature of the emissions, the project will not cause emissions to exceed the CAAQS or the NAAQS, or contribute substantially to any existing or project-related air quality violations for $O_3$, $PM_{2.5}$, and $PM_{10}$.

Due to the short-term nature of these emissions and their compliance with available significance thresholds, impacts from $O_3$, $PM_{2.5}$, and $PM_{10}$ will be less than significant. The project will not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. Implementation of APM AIR-01 and APM AIR-02 will also incorporate the applicable basic construction mitigation measures in the current BAAQMD CEQA guidelines.

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

The proposed project is located within 500 feet of sensitive receptors. In some locations, residential properties are adjacent to the proposed alignment. The nearest schools to the project

include Mark West Elementary School, Mark West Charter School, San Miguel Elementary School, and After School Arts Program at The Cove, which are located adjacent to the existing Fulton-Shiloh segment. Due to their proximity to the project, sensitive receptors in the project vicinity will be exposed to increases in criteria air pollutants as a result of fugitive dust and increased equipment use in the area. These emissions will be short term, and will occur only during the construction phase. Furthermore, due to the linear nature of the project, emissions will generally only occur for a few days or less at a given location.

Receptors located near the five landing zones may experience increased dust and exhaust during helicopter take-off and landing activities. However, helicopter activities will be infrequent (where limited access or local terrain conditions prohibit the work from being conducted by ground-based crews and equipment, or during conductor installation and removal activities) and will only occur for a period of approximately 120 days during the 12-month construction period, and will be divided between five different landing zones. Although helicopter landings will generate dust, landings will be brief and dust effects will be localized. The nearest receptor to a landing zone is located at a distance of approximately 175 feet.

As discussed previously, there will be no significant increase in emissions resulting from operations and maintenance for this project, therefore there will be no net increase in long term exposure to sensitive receptors. The majority of toxic air contaminant (TAC) emissions will be diesel particulate matter (DPM) from construction equipment. The Office of Environmental Health Hazard Assessment (OEHHA) provides a chronic relative exposure limit (REL) for DPM, but not an acute or 8-hour REL. OEHHA indicates that chronic REL should be evaluated based on exposure over a 70-year lifetime. Due to the linear nature of the project, construction activities will be spread across the approximately 10-mile-long alignment, lasting only a few days at each pole, which is not a duration appropriate for assessing chronic health risk.

Due to the short-term duration of the project and its linear nature, both of which limit exposure of receptors to emissions, the project will have less-than-significant impacts on sensitive receptors. Implementation of APM AIR-1 and APM AIR-2, which include controlling fugitive dust and reducing idling time, will further reduce exposure to sensitive receptors.

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

Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions. No significant project-related sources of these pollutants will exist during construction. An additional potential source of project-related odor is diesel engine emissions. However, because few sources of odor will exist, the sources will be spatially diverse, and construction will be short term (lasting only a few days at each pole), impacts related to odor generated during construction of the project will be less than significant.

Table 2.0-2: Typical Construction Equipment and Duration of Use includes the equipment anticipated to be used during construction of the project.

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