

## C.4 Air Quality

This section analyzes whether the Revised Project and PGE Upgrades result in any new significant air quality impacts that were not previously identified and disclosed in the 2010 Final EIR or a substantial increase in the severity of any previously identified Air Quality impacts. As part of this analysis, the section considers changes to the existing ambient air quality in the study area, changes to the emissions of the Approved Project, and changes to potential air quality impacts and mitigation measures.

An updated Air Quality Technical Report, prepared by the Applicant’s consultant (AMEC, 2014) was used to evaluate the Revised Project.

### C.4.1 Environmental Setting

This section describes changes to the environmental setting that have occurred since 2010. Section C.4.1.1 describes any changes to the environmental setting that was presented in the 2010 Final EIR. Section C.4.1.2 describes the environmental setting for the area surrounding the PG&E transmission system upgrades.

The United States Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and the local air districts classify an area as attainment, unclassified, or nonattainment depending on whether or not the monitored ambient air quality data show compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. The National and California Ambient Air Quality Standards (NAAQS and CAAQS, respectively) relevant to the Revised Project are provided in Table C.4-1.

**Table C.4-1. National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards	National Standards
Ozone (O <sub>3</sub> )	1-hour	0.09 ppm	—
	8-hour	0.070 ppm	0.075 ppm
Respirable particulate matter (PM10)	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual mean	20 µg/m <sup>3</sup>	—
Fine particulate matter (PM2.5)	24-hour	—	35 µg/m <sup>3</sup>
	Annual mean	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>
Carbon monoxide (CO)	1-hour	20 ppm	35 ppm
	8-hour	9.0 ppm	9.0 ppm
Nitrogen dioxide (NO <sub>2</sub> )	1-hour	0.18 ppm	100 ppb
	Annual mean	0.030 ppm	0.053 ppm
Sulfur dioxide (SO <sub>2</sub> )	1-hour	0.25 ppm	75 ppb
	24-hour	0.04 ppm	0.14 ppm
	Annual mean	—	0.030 ppm

ppm = parts per million; ppb= parts per billion  
µg/m<sup>3</sup> = micrograms per cubic meter  
— = no standard  
Source: CARB, 2013.

### C.4.1.1 Revised Solar Project

The air quality environmental setting for the Revised Project site has remained substantially unchanged since approval of the Final EIR. Panoche Valley remains generally undeveloped and pastoral in character. No new development has occurred, and no major new structures have been built in the Valley. Grazing remains the primary land use in the area.

The North Central Coast Air Basin remains designated as nonattainment with respect to the ozone and PM10 CAAQS, and the North Central Coast Air Basin is designated as being in attainment or as unclassified for all other pollutants. Since 2012, the North Central Coast Air Basin has been in attainment for all pollutants with respect to the NAAQS.

Table C.4-2 summarizes the current federal and State attainment status of criteria pollutants for the region as provided by Monterey Bay Unified Air Pollution Control District (APCD), based on the NAAQS and CAAQS, respectively.

**Table C.4-2. Attainment Status for the North Central Coast Air Basin**

Pollutant	Attainment Status Federal	Attainment Status State
Ozone	Attainment/Unclassified	Nonattainment
PM10	Attainment	Nonattainment
PM2.5	Attainment/Unclassified	Attainment
CO	Attainment/Unclassified	Unclassified
NO <sub>2</sub>	Attainment/Unclassified	Attainment
SO <sub>2</sub>	Attainment	Attainment

Source: Monterey Bay Unified APCD, 2013.

### C.4.1.2 PG&E Upgrades

The portions of the PG&E Upgrades that would occur within Fresno County and the San Joaquin Valley Air Basin are under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). Table C.4-3 summarizes the federal and State attainment status of criteria pollutants for the region as provided by SJVAPCD, based on the NAAQS and CAAQS, respectively.

**Table C.4-3. Attainment Status for the San Joaquin Valley Air Basin**

Pollutant	Attainment Status Federal	Attainment Status State
Ozone	Nonattainment (Extreme)	Nonattainment
PM10	Attainment	Nonattainment
PM2.5	Nonattainment	Nonattainment
CO	Attainment/Unclassified	Attainment/Unclassified
NO <sub>2</sub>	Attainment/Unclassified	Attainment
SO <sub>2</sub>	Attainment/Unclassified	Attainment

Source: SJVAPCD, 2014.

## C.4.2 Applicable Regulations, Plans, and Standards

The applicable regulations, plans, and standards that apply to the assessment of air quality impacts of that portion of the Revised Project within San Benito County are presented in Section C.4.2 of the Final

EIR. Since 2010, the Monterey Bay Unified APCD adopted on April 17, 2013 a new Triennial Plan Revision (2009-2011) for the region's Air Quality Management Plan that builds on past plans and continues to focus on achieving attainment of the State ozone standard. Regulatory changes by the Monterey Bay Unified APCD since 2010 do not substantially alter the regulatory setting for air quality within San Benito County.

However, as noted above, the Revised Project also includes the PG&E Upgrades that affect land within Fresno County that is under the jurisdiction of the SJVAPCD, which is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within Fresno County and throughout the San Joaquin Valley Air Basin. Like the MBUPCD, the SJVAPCD has adopted regulations to implement air quality plans for ozone, PM10, and PM25.

**Regulation VIII – Fugitive PM10 Prohibitions.** Regulation VIII is comprised of District Rules 8011 through 8081, which are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

**Rule 8021 – Construction, Demolition, Excavation, and Other Earthmoving Activities.** District Rule 8021 requires owners or operators of construction projects to submit a Dust Control Plan to the District if at any time the project involves non-residential developments of five or more acres of disturbed surface area or moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least three days of the project. The proposed project will meet these criteria and will be required to submit a Dust Control Plan to the District in order to comply with this rule.

**Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations.** If asphalt paving will be used, then paving operations of the proposed project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

**Rule 9510 – Indirect Source Review (ISR).** District Rule 9510 is designed for the purposes of reducing emissions of NOx and PM10 from new development projects. In general, new development contributes to the air-pollution problem in the Valley by increasing the number of vehicles and vehicle miles traveled. In 2005, on-road vehicles generated approximately 200 tons per day of NOx and direct PM10 pollution in the Valley. The ISR rule will apply to future development along the Golden State Boulevard corridor.

### **C.4.3 Environmental Impacts and Mitigation Measures**

This section addresses whether the changes to the Approved Project would result in a new significant impacts to air quality or increase the severity of previously identified air quality impacts. Section C.4.3.1 restates the significance criteria used in 2010 to determine whether any project changes result in any new or more severe significant impacts. Section C.4.3.2 summarizes the impacts and mitigation measures presented in the 2010 Final EIR for ease of reference. Section C.4.3.3 presents the updated impact analysis for the Revised Project, and Section C.4.3.4 addresses changes to two adopted mitigation measures and two APMs. Section C.4.3.5 addresses the environmental impacts that would occur as a result of the PG&E Upgrades, and Section C.4.3.6 describes cumulative impacts.

### C.4.3.1 Significance Criteria

#### Monterey Bay Unified APCD

The following significance criteria for air quality were derived from the Monterey Bay Unified APCD's *2008 CEQA Air Quality Guidelines* (APCD, 2008).

**Significance Criteria for Construction-Related Emissions.** Short-term construction emission thresholds, as stated in the Monterey Bay Unified APCD's *2008 CEQA Air Quality Guidelines* (APCD, 2008), involve identifying the level of construction activity that could result in significant temporary impacts if not mitigated. Construction activities (e.g., excavation, grading, on-site vehicles) that directly exceed the APCD criterion for PM<sub>10</sub> would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors (APCD, 2008). Regarding ozone, construction projects using typical construction equipment that temporarily emit ozone precursors are accommodated in the emission inventories of State and federally required air quality management plans and would not have a significant impact on ozone concentrations (APCD, 2008).

If construction-related activities exceed the PM<sub>10</sub> threshold of 82 pounds (Table C.4-4), the project would be characterized as contributing substantially to existing violations of the State-level ambient air quality standards for PM<sub>10</sub>.

**Table C.4-4. Significance Thresholds for Construction Emissions**

Pollutant of Concern	Threshold
Fugitive Particulate Matter (PM <sub>10</sub> )	82 lbs

Source: Monterey Bay Unified APCD, 2008.

The APCD also offers the following as examples of the level of construction activity that could exceed threshold in Table C.4-4:

- Construction site with minimal earthmoving exceeding 8.1 acres per day.
- Construction site with earthmoving (grading, excavation) exceeding 2.2 acres per day.

**Significance Criteria for Operational Emissions.** The threshold criteria established by the Monterey Bay Unified APCD's *2008 CEQA Air Quality Guidelines* to determine the significance and appropriate mitigation level for long-term operational emissions from a project are presented in Table C.4-5.

**Table C.4-5. Significance Thresholds for Operational Emissions**

Pollutant of Concern	Daily Threshold
Ozone Precursors (NO <sub>x</sub> as NO <sub>2</sub> )	137 lbs/day (direct + indirect)
Fugitive Particulate Matter (PM <sub>10</sub> ), Dust	82 lbs/day (on-site) <sup>1</sup> AAQS exceeded along unpaved roads (off-site)
Carbon Monoxide (CO)	LOS at intersection/road segment degrades from D or better to E or F or V/C ratio at intersection/road segment at LOS E or F increases by 0.05 or more or delay at intersection at LOS E or F increases by 10 seconds or more or reserve capacity at unsignalized intersection at LOS E or F decreases by 50 or more <sup>2</sup> 550 lbs/day (direct) <sup>2</sup>
SO <sub>x</sub> as SO <sub>2</sub>	150 lbs/day (direct)

- 1 - The District's 82 lb/day operational phase threshold of significance applies only to on-site emissions and project-related exceedances along unpaved roads. These impacts are generally less than significant. On large development projects, almost all travel is on paved roads (0% unpaved), and entrained road dust from vehicular travel can exceed the significance threshold. District approved dispersion modeling can be used to refute (or validate) a determination of significance if modeling shows that emissions would not cause or substantially contribute to an exceedance of State and national AAQS;
  - 2 - Modeling should be undertaken to determine if the project would cause or substantially contribute (550 lb/day) to exceedance of CO AAQS. If not, the project would not have a significant impact;
- Source: Monterey Bay Unified APCD, 2008.

In addition to the tabulated thresholds, a project may also have significant adverse impacts on air quality if the project individually or cumulatively results in any of the following:

- Exceedance of a State or federal ambient air quality standard for any criteria pollutant (as determined by modeling).
- Exposure of sensitive receptors to substantial pollutant concentrations of toxic air contaminants.
- Exposure of a substantial number of people to objectionable odors.
- Inconsistency with applicable Monterey Bay Unified APCD air quality management plans, polices, or regulations.

The criteria for assessing cumulative impacts on localized air quality (i.e., carbon monoxide, PM10) are identical to those for individual project operation (Table C.4-5). The criteria for determine a project's cumulative impact on regional ozone levels depends on consistency with the applicable air quality management plan. Consistency with the AQMP does not mean that a project will not have a significant project-specific adverse air quality impact. However, inconsistency with the AQMP is considered a significant cumulative adverse air quality impact. The Association of Monterey Bay Area Governments provides consistency determinations for population-related projects, which the Revised Project is not. As a non-residential project, with little attributable population growth (see Section C.12, Population and Housing), the APCD could make a consistency determination for this project.

### **San Joaquin Valley Air Pollution Control District (SJVAPCD)**

The SJVAPCD has identified PM10 as the pollutant of greatest concern for construction-related emissions. In the Guide for Assessing and Mitigating Air Quality Impacts, the SJVAPCD recommends that construction PM10 impacts be evaluated based on implementation of effective and comprehensive dust control measures rather than detailed quantification (SJVAPCD, 2002b).

~~SJVAPCD has established CEQA significance thresholds of 15 tons per year (tpy) for both PM10 and PM2.5. Additionally, SJVAPCD has established CEQA thresholds for carbon monoxide (100 tpy), nitrogen oxides (10 tpy), Reactive Organic Gases (10 tpy), and sulphur oxides (27 tpy). SJVAPCD has not established a CEQA significance threshold for PM10 or PM2.5 emissions associated with construction activities. The SJVAPCD has also not established quantitative CEQA thresholds for ozone precursors associated with construction activities. In lieu of CEQA significance thresholds for construction emissions of ozone precursors, projected emissions can be compared to the SJVAPCD's operational CEQA threshold of 10 tons per year for both NOx and Reactive Organic Gases (ROG). Regarding construction emissions of CO and SO2, the SJVAPCD has not developed quantitative thresholds for these pollutants either.~~

Conclusions regarding the significance of each identified air quality impact are made per the significance classification system provided in Section C.1 (Introduction to Environmental Analysis).

### C.4.3.2 Approved Project Impacts and Mitigation Measures

The Air Quality impacts of the Approved Project were analyzed in Sections C.4 and E.3.1.A of the 2010 Final EIR. Table C.4-6 presents a summary of the impacts and mitigation measures applicable to the Approved Project.

**Table C.4-6. Summary of Impacts and Mitigation: Air Quality**

Impact No. and Text	Mitigation Required	CEQA Conclusion
Impact AQ-1: Construction activities would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	AQ-1.1: Reduce fugitive dust AQ-1.2: Designate a dust complaint monitor	Class II
Impact AQ-2: Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	None	Class III
Impact AQ-3: Power generated by operation of the solar power plant would indirectly affect operations and emissions from other power plants.	None	Class IV
Impact AQ-4: Project-related emissions may be inconsistent with relevant air quality management plans.	AQ-1.1: Reduce fugitive dust AQ-1.2: Designate a dust complaint monitor	Class II
Impact AQ-5: Contribute to cumulatively considerable air quality impacts.	None	Class III

### C.4.3.3 Revised Solar Project Impacts

As discussed below, overall, the air quality impacts of the Revised Project would be incrementally greater than the Approved Project during the temporary construction period due to the accelerated construction schedule; however, pollutant emissions would not exceed thresholds identified in Section 3.4.3.1 above and emissions would be either less severe or not substantially different from the conclusions of the Final EIR.

***Impact AQ-1: Construction activities would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants (Class II)***

Like the Approved Project, the Revised Project would emit fugitive dust, reactive organic gases (ROGs), NO<sub>x</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, and toxic diesel particulate matter (DPM) during the construction phase that would contribute to regional and localized degradation of air quality. Emissions from construction would result from fuel combustion and exhaust from construction equipment and vehicle traffic, grading, and use of materials that contain volatile and/or toxic compounds (e.g., paints and lubricants).

The Revised Project, while about 78% of the fenced area of the Approved Project, would result in a more intense construction period due to the compressed construction schedule for the Revised Project (approximately 18 months compared to the Approved Project schedule of approximately 5 years). As a result, the Revised Project would have increased daily use of typical construction equipment such as dump trucks, graders, scrapers, bulldozers, compactors, and front end loaders that emit precursors of ozone (ROG and NO<sub>x</sub>) and fugitive dust-generating activities when compared with the Approved Project. Note that the construction of the microwave tower at the switching station will be performed by the Applicant; therefore, air emissions associated with construction of this component were included in the air emissions calculations for the Revised Project. The Revised Project also requires an increase in the amount of daily ground disturbance activities. Although construction of the Revised Project would result in a shorter period during which construction emissions would occur, the compressed construction schedule would

result in higher average daily emissions levels; however, as demonstrated in the August 8, 2014 Technical Memorandum including a “CalEEMod Analysis of Potential Particulate Emissions from Construction Activities at the Panoche Valley Solar Farm Project” the construction emissions would not exceed the significance thresholds with implementation of mitigation measures. The modified Mitigation Measure AQ-1.1 (Reduce fugitive dust) for the Revised Project would allow for an increase in the grading limits from 8.1 to 50 acres per day. The Air Quality Technical Report (AMEC, 2014) prepared for the Revised Project demonstrates that the daily significance threshold for fugitive dust emissions would not be exceeded if the frequency of watering is increased from two times per day to three times per day. Therefore, Mitigation Measure AQ-1.1 has also been revised to require watering three times per day to ensure that daily significance thresholds are not exceeded.

As with the Approved Project, temporary construction-phase VOC and NO<sub>x</sub> emissions caused by construction of the Revised Project would contribute to existing ozone violations. The contribution would not be considered significant because temporary construction emissions are accommodated in the AQMP inventory of construction emissions that are assumed to occur by the Monterey Bay Unified APCD in demonstrating maintenance of the ozone standards. As such, based on Monterey Bay Unified APCD guidance (Monterey Bay Unified APCD, 2013a), construction-phase ozone precursors would not cause violations of or disrupt the attainment and maintenance of ozone ambient air quality standards.

Like the Approved Project, emissions of other criteria pollutants, including PM<sub>10</sub>, PM<sub>2.5</sub>, CO, and NO<sub>2</sub> from construction activities would not be expected cause a violation of any ambient air quality standard beyond the project boundary due to the relatively large land area of the Revised Project and the widespread distribution of construction emissions (SCEC, 2010).

Emissions of fugitive dust would be subject to mitigation measures and applicant proposed measures for dust control and activity management. Specific and feasible dust control measures identified in the 2010 Final EIR would remain required to reduce the impact of dust emissions: Mitigation Measure AQ-1.1 includes specific requirements for reducing fugitive dust, and Mitigation Measure AQ-1.2 requires designation of a dust complaint monitor. As explained above, Mitigation Measure AQ-1.1 has been revised to require watering for dust suppression three times per day. Based on updated emissions forecasting by the Applicant (AMEC, 2014), increasing the dust control frequency to include watering three times daily would ensure that PM<sub>10</sub> and fugitive dust emissions of the Revised Project are less than significant (Class II).

***Impact AQ-2: Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants (Class III)***

The Revised Project would include fewer panels and a smaller site footprint than the Approved Project. Operation, maintenance, and inspection activities would be largely the same, but of a lower intensity. This impact would remain less than significant (Class III).

***Impact AQ-3: Power generated by operation of the solar power plant would indirectly affect operations and emissions from other power plants (Class IV)***

The Revised Project would generate about 62% of the electrical energy of the Approved Project, and therefore would have a lower potential to indirectly affect operations and emissions from other fossil fuel-fired California and western U.S. power plants. However, the Revised Project would still offset fossil fuel-fired emissions, and this impact would remain beneficial (Class IV).

***Impact AQ-4: Project-related emissions may be inconsistent with relevant air quality management plans (Class II)***

Emissions from the Revised Project would require mitigation similar to that identified for the Approved Project, and with the recommended mitigation, these emissions would be consistent with the regional air quality management plan. With sufficient control required by mitigation measures for construction, the project impacts would be managed sufficiently to ensure fugitive dust and construction equipment emissions remain consistent with regional plans, resulting in a less than significant impact (Class II).

### **C.4.3.4 Changes to Adopted Mitigation Measures**

The Applicant proposed changes to each of the air quality mitigation measures for the Approved Project and to the Applicant Proposed Measures (APM AQ-2 and APM AQ-3). These revised measures are shown below.

#### **Changes to Mitigation Measures**

**Proposed changes to MM AQ-1.1.** The changes presented in the text of the measure would not increase the severity of the impact and are acceptable. While the applicant is proposing in AQ-1.1, Item (1) to increase the grading limits from 8.1 to 50 acres per day, the Air Quality Technical Report (AMEC, 2014) prepared for the Revised Project demonstrates that the daily significance threshold for fugitive dust emissions would not be exceeded if the frequency of watering is increased from two times per day to three times per day. Therefore, Mitigation Measure AQ-1.1, (Item 2) has also been revised to require watering three times per day to ensure that daily significance thresholds are not exceeded.

The proposed modification of item (12) allows a range of common alternative methods for soil stabilization to be implemented. These methods are frequently used alternatives to revegetation, and when properly applied, would not increase amounts of fugitive dust.

Accordingly, the proposed changes to AQ-1.1 would not result in any new significant air quality impact or substantially increase the severity of any previously identified impact.

**MM AQ-1.1 Reduce fugitive dust.** The Applicant shall implement the following measures to minimize nuisance impacts and to significantly reduce fugitive dust emissions, and the Applicant shall require all of the following measures to be shown on grading and building plans:

- (1) Limit grading to 50 acres per day, and grading and excavation to 2.2 acres per day;
- (2) Water graded/excavated areas and active unpaved roadways, unpaved staging areas, and unpaved parking areas at least three times daily or apply non-toxic chemical soil stabilization materials per manufacturer's recommendations. Frequency should be based on the type of operations, soil and wind exposure;
- (3) Prohibit all grading activities during periods of high wind (sustained over 15 mph);
- (4) Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);
- (5) Apply non-toxic binders (e.g., latex acrylic copolymer) or water to exposed areas after cut and fill operations, and hydro-seed area;
- (6) Plant vegetative ground cover compliant with County-approved Landscape Plan in disturbed areas as soon as possible;



(7) Cover, enclose, or apply soil stabilizers to inactive storage piles or water three times daily;

(8) Install wheel washers or track outs at the entrance to construction sites for all exiting trucks. Track outs will be a minimum of 100 feet long or twice the length of the longest vehicle entering the site. Track out pads will be a combination of corrugated steel "rumble plates" at exits of track out pads and 6 inches thick of class 150 (4" minimum diameter) stone preceding rumble pads. Rumble pads and track out stone will be maintained and cleaned as necessary to remove any deposited materials. Vehicles entering and exiting the site will be free of excessive dirt and debris and will be cleaned as necessary to satisfy fugitive dust control requirements. All on site construction equipment will be required to be washed prior to delivery to the site and washed (utilizing high pressure washers) prior to demobilizing. Construction traffic on site and between sections of the site will utilize track out devices prior to crossing paved roads. Delivery vehicles (over road tractor trailers, concrete and aggregate trucks, and all other delivery vehicles) will be required to travel on established roadways and utilize established lay down areas at the Project site.

Vehicle traffic for employees will travel to established parking areas and enter and exit over the track out devices as previously described. Trackout devices will be regularly maintained and all construction equipment entering the site will be inspected and any equipment observed not to have been washed will not be permitted to enter the Project site.

(9) Use street sweepers, water trucks, or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Reclaimed (non-potable) water should be used whenever possible;

(10) All dirt stock pile areas shall be sprayed daily as needed;

(11) Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following completion of any soil disturbing activities;

(12) Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established. Unless restricted in the biological resources mitigation measures, alternative methods for soil stabilization may be implemented, including but not limited to use of water to establish a crust, chemical stabilizers, and straw mulching.

(13) All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or gravel for temporary roads and any other methods approved in advance by the Monterey Bay Unified APCD;

(14) Gravel shall be placed on all roadways and driveways as soon as possible after grading for said roadways. In addition, building pads shall be laid as soon as possible after grading unless seeding, soil binders, or frequent water application are used;

(15) Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;

(16) All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least 2 feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114;

(17) Unpaved road travel shall be limited to the extent possible, for example, by limiting the travel to and from unpaved areas, by coordinating movement between work areas rather than to central staging areas, and by busing workers where feasible;

(18) Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site, and inspect vehicle tires to ensure free of soil prior to carry-out to paved roadways. Alternatively, use track outs as defined in (8) above.

(19) Sweep streets at the end of each day, or as needed, if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible.

**Proposed change to MM AQ-1.2.** The minor language changes would not create a new air quality impact or substantially increase the severity of an air quality impact.

**MM AQ-1.2 Designate a dust complaint monitor.** The Applicant shall require the contractor(s) or builder(s) to designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20 percent opacity, and to prevent transport of dust off-site. Their duties shall include monitoring during holidays and weekend periods only when work is in progress. The name and telephone number of such persons shall be provided to the Monterey Bay Unified APCD Compliance Division prior to the start of any grading, earthwork, or demolition. The Applicant shall provide and post a publicly visible sign that specifies the telephone number and name to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified APCD shall also be visible to ensure compliance with Rule 402 (Nuisance).

### Changes to Applicant Proposed Measures

**Changes to APM AQ-2.** The minor language changes below would not create a new air quality impact or substantially increase the severity of an air quality impact.

**APM AQ-2:** The Applicant shall implement the following BMPs to further reduce construction vehicle emissions (NO<sub>x</sub>, VOC, and Diesel Particulate Matter) during project construction:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Use diesel construction equipment, including portable equipment, rated more than 50 horsepower meeting the California Air Resources Board's (CARB's) Tier 2 standards for certified engines or cleaner off-road heavy-duty diesel engines (e.g., Tier 3 and Tier-4, where feasible), and comply with the State In-Use Off-Road Diesel Vehicle Regulation (California Code of Regulations [CCR] Title-13, Article 4.8, Chapter-9, Section 2449);
- Prohibit on and off-road diesel equipment idling for more than 5 minutes, or within time necessary to comply with Title-13, CCR, Section 2485 (c) (1) regarding idling of commercial vehicles. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of all idling limits;

- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify off-road construction equipment when feasible; and
- Provide incentives for workers to use project-sponsored shuttle bus service or carpooling, where feasible.
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, biodiesel, or electric.

For purpose of this mitigation, “sensitive receptors” shall be defined as occupied residences, senior living centers, parks and recreation areas, medical facilities and schools.

**Changes to APM AQ-3.** The revised APM below would not result in any new significant air quality impact or substantially increase the severity of any previously identified impact. Gravel track systems are as effective as wheel washers, when properly implemented and when inspections occur.

**APM AQ-3:** The Applicant shall reduce fugitive dust emissions during construction through implementation of the following best management practices to be shown on grading and building plans:

- Water graded/excavated areas and active unpaved roadways, unpaved staging areas, and unpaved parking areas at least three times daily or apply chemical soil stabilizers per manufacturer recommendations. Frequency should be based on the type of operations, soil and wind exposure
- Apply chemical soil stabilizers or water on inactive construction areas (disturbed lands, including dirt stockpiles;
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or gravel for temporary roads;
- Gravel shall be placed on all perimeter roadways and driveways as soon as possible after grading for said roadways.
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114;
- Install gravel track systems where vehicles enter and exit unpaved roads onto streets, and inspect equipment tires to ensure free of soil prior to carry-out to paved roadways.

#### **C.4.3.5 PG&E Upgrades Impacts**

The temporary and permanent air quality impacts of the PG&E Upgrades are analyzed in this section. This analysis is based on the impact statements defined for the solar project, but not all of the air quality impacts apply to the PG&E Upgrades. Impact AQ-3 (Power generated by operation of the solar power plant would indirectly affect operations and emissions from other power plants), addressed for the solar project would not occur as a result of construction or operation of the PG&E Upgrades, and is not analyzed further.

#### ***Impact AQ-1: Construction activities would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants (Class III)***

Installation of the OPGW along the 17-mile upgraded section of the Moss Landing–Panoche transmission line would involve use of helicopters and construction equipment generating exhaust emissions of criteria pollutants and toxic air contaminants and airborne dust from soil disturbance for preparation of

pulling/stringing sites as well as for minor improvements to existing access roads. Table C.4-7 lists the equipment anticipated to be utilized by PG&E during the approximately 16 week construction period for installation of the OPGW.

**Table C.4-7. PG&E Equipment for OPGW Installation**

Equipment Type	Fuel Type	Quantity
Dump Truck / Line Truck	Diesel	2
Excavator/ Back Hoe	Diesel	1
Skid Steer (Hauling Puller)	Diesel	1
Pick up Truck	Gasoline/Diesel	2
Manlift / Bucket Truck	Diesel	2
Crawler Cranes <200T	Diesel	1
Crawler drill rig	Diesel	1
Helicopter*	Jet Fuel	1

Construction of two to three new microwave communication towers would utilize construction equipment that would generate exhaust emissions and dust emissions, with the construction of the new microwave tower at the project switching station activity would occur within the MBUAPCD and emissions are included with the solar project emissions. Construction at the Helm Substation would occur within the SJVAPCD. The Helm Substation work would take place occurring primarily within the fence lines of the existing proposed substation and other communication tower sites. Although these activities would generate exhaust and dust emissions, only approximately two-thirds of PG&E Upgrade construction activities will be completed in the SJVAPCD. As shown in Table C.4-7 below, emissions for all PG&E Upgrade work will remain below the construction thresholds as described in Section C.4.3.1 above.

**Table C.4-7. PG&E Upgrades Construction Emissions Summary (by activity)**

Activity	Emissions (lbs)					
	ROG	CO	NOx	SOx	PM10	PM2.5
Survey	0.1	1.0	0.1	0.0	8.4	1.8
ROW Clearing	47.3	171.3	370.4	0.8	320.8	76.5
Guard Structure Installation	24.9	94.2	173.6	0.4	254.0	57.7
Install OPGW	311.7	670.7	920.7	1.7	744.7	181.4
Guard Structure Removal	13.8	47.8	98.0	0.2	124.2	28.6
Restoration	13.7	51.2	102.6	0.3	157.4	35.5
Total (lbs per year)	411.59	1036.21	1665.42	3.30	1609.58	381.46
Total (tons per year)	0.206	0.518	0.833	0.002	0.805	0.191

Detailed calculations are presented in Attachments 4A-1 and 4A-2 to the FSEIR. construction related emissions would not contribute substantially because the ambient levels for these pollutants in the San Joaquin Valley APCD are well below State and Federal ambient air quality standards, and the emission of CO and SO2 from construction of the PG&E work would be negligible and of short duration.

As demonstrated in Table C.4-7, the construction emissions would not occur at significant levels due to the short construction period, the limited extent of equipment use, and the small footprint of the proposed upgrades. Detailed emissions calculations for the PG&E Upgrades included as Attachments 4A.1 and 4A.2 provides estimated hours of use per day, horsepower, emissions factors and total days used. As shown in the calculations tables, all equipment will not be running simultaneously and to calculate maximum peak daily emissions, activities that could occur contemporaneously were grouped to provide a conservative estimate of emissions from all equipment would be running simultaneously. The conservative estimate resulted in calculations that were determined to have less than significant impacts to air quality with incorporation of AMMs.

~~As described in the August 8, 2014 Technical Memorandum including a CalEEMod Analysis of Potential Particulate Emissions from Construction Activities at the Panoche Valley Solar Project, PM10 emissions would not be exceeded if ground disturbance is limited to 50 acres per day and water is applied for dust suppression three times daily. As depicted in Table B-10, approximately 5.62 acres are anticipated to be disturbed as a result of PG&E upgrade activities.~~

~~Therefore, PG&E activities, occurring partially in Fresno County and partially in San Benito County, would not result in an exceedance of Monterey Bay Unified APCD or SJVAPCD PM10 thresholds. Similarly, the amount of equipment that will be used for a short duration will not generate emissions of criteria pollutants above applicable significance thresholds.~~

PG&E's AMMs AQ-1 (Minimize fugitive dust) and AQ-2 (Limit idling time) would be implemented to ensure that impacts remain less than significant (Class III).

***Impact AQ-2: Operation, maintenance, and inspections would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants (Class III)***

Operation, maintenance, and inspections of the PG&E Upgrades would cause very minor dust, criteria air pollutant and toxic air contaminant emissions from the use of transportation fuels for maintenance and inspection vehicles. However, these inspections would be completed as a component of the transmission line inspections; there would be no separate inspection of the OPGW. These emissions would not occur in quantities notably different from those already occurring as the existing systems are inspected and maintained. The impact would be less than significant (Class III).

***Impact AQ-4: Project-related emissions may be inconsistent with relevant air quality management plans (Class III)***

Emissions from the PG&E Upgrades would generally be limited to construction sources that would be consistent with the regional air quality management plans of both the Monterey APCD and the Fresno County portion of the San Joaquin Valley Air Basin and Fresno County General Plan (County of Fresno, 2000; SJAPCD, 2014b).

In April 2013, MBUAPCD adopted the 2012 Triennial Plan Revision (MBUAPCD, 2013b), which assesses and updates elements of the 2008 AQMP, including the air quality trends analysis, emission inventory, and mobile source programs. The 2012 AQMP Revision only addresses attainment of the state ozone standard. In 2012, EPA designated the NCCAB as attainment of the current national 8-hour ozone standard of 0.075 ppm. Projects that result in an increase in population that is inconsistent with local community plans would be considered inconsistent with the AQMP. The proposed PG&E Upgrades would not conflict with or otherwise obstruct the implementation of the AQMP as there would be no permanent population increases or new stationary sources of emissions associated with the PG&E Upgrades.

The Fresno County General Plan includes policies addressing air quality issues in its Open Space and Conservation Element. The following goal and policy would be applicable to the PG&E Upgrades:

- Goal OS-G: To improve air quality and minimize the adverse effects of air pollution in Fresno County.
- Policy OS-G.2: The County shall ensure that air quality impacts identified during the CEQA review process are fairly and consistently mitigated. The County shall require projects to comply with the County's adopted air quality impact assessment and mitigation procedures.

The SJVAPCD's most recent AQMP for ozone attainment is the 1-hour Extreme Ozone Attainment Demonstration Plan which was adopted in September 2013. The District's 2013 Plan for the Revoked 1-Hour Ozone Standard demonstrates how the Valley will attain the revoked 1-hour ozone standard by 2017. In April 2008, The SJVAPCD Board adopted the 2008 PM2.5 Plan. This plan was designed to attain the federal and State PM2.5 standards in the SJVAB as soon as possible. Through implementation of AMMs AQ-1 (Minimize fugitive dust) and AQ-2 (Limit idling time), the fugitive dust and construction equipment emissions would meet applicable regulatory standards, would not occur at a significant level, and would be consistent with regional plans, resulting in a less than significant impact (Class III).

#### **C.4.3.6 Cumulative Impacts**

No significant additional sources of emissions would be caused by cumulative projects near the Revised Project site or the areas surrounding the PG&E Upgrades. Emissions caused by the Revised Project with recommended mitigation measures would be reduced to minimize the project's cumulative air quality impacts. Although emissions caused by construction, operation, and maintenance of the Revised Project could combine with emissions from other projects in the area of cumulative effects to cause a cumulatively considerable impact, the level of air pollutants emitted not be significant. Any contribution to a cumulatively considerable impact to air quality would be less than significant (Class III).

### **C.4.4 Summary of Impacts.**

The significance of impacts for air quality for the Revised Project and for the PG&E Upgrades is summarized in Sections C.4.4.1 through C.4.4.3.

#### **C.4.4.1 Revised Solar Project**

There are no changes to the significance of impacts from the conclusions of the 2010 Final EIR. The impacts summarized in Table C.4-6 remain accurate. The Revised Project, with mitigation, would result in less than significant (Class II or III) impacts on air quality due to the generation of exhaust emissions during construction, operations, and maintenance. Mitigation Measures AQ-1.1 and AQ-1.2 would ensure that impacts are not significant. Operation of the Revised Project would result in a beneficial (Class IV) impact through the avoidance of emissions from fossil fuel-fired power plants.

#### **C.4.4.2 PG&E Upgrades**

The PG&E Upgrades would result in less than significant (Class III) impacts on air quality due to the generation of exhaust and dust emissions during construction, operations, and maintenance. Emissions would be reduced with implementation of PG&E's Avoidance and Minimization Measures.

### C.4.4.3 Overall Significance of Impacts

The combined impacts of the Revised Project and those of the PG&E Upgrades would be less than significant, when compared with the standards of the two different APCDs.

### C.4.5 References

- AMEC. 2014. Technical Memorandum to: Panoche Valley Solar LLC. Subject: CalEEMod Analysis of Potential Particulate Emissions from Construction Activities at the Panoche Valley Solar Farm Project. August 8, 2014.
- CARB (California Air Resources Board). 2013. Ambient Air Quality Standards Chart. Revised: June 4, 2013.
- County of Fresno. 2000. Fresno County General Plan—Open Space and Conservation Element. October.
- Monterey Bay Unified APCD (Air Pollution Control District). 2013a. North Central Coast Air Basin (NCCAB) Area Designations and Attainment Status – January 2013.
- \_\_\_\_\_. 2013b. Air Quality Management Plan Revision – 2012.
- SCEC. 2010. SCEC Air Quality Specialists: Air Quality Analysis for Panoche Valley Solar Farm Technical Report. May 2010.
- SJVAPCD (San Joaquin Valley Air Pollution Control District). 2014a. Attainment status. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>. Accessed November 14, 2014.
- \_\_\_\_\_. 2014b. San Joaquin Valley Air Quality Management Plans. <http://www.arb.ca.gov/planning/sip/planarea/sanjqnvllysip.htm>. Accessed November 14, 2014.
- \_\_\_\_\_. 2002. Guide for Assessing and Mitigating Air Quality Impacts, updated January 10, 2002.