

2.3 Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
3. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in substantial long-term emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This section evaluates the Proposed Project's potential to impact regional and local air quality from stationary and mobile sources of air emissions from construction activities and operational sources. This section is based on a review of existing documentation of air quality conditions in the region, air quality regulations from the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the North Coast Unified Air Quality Management District (NCUAQMD).

Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects air quality.

Regional Topography, Meteorology, and Climate

The potential for high pollutant concentrations developing at a given location depends upon the quantity of pollutants emitted into the atmosphere in the surrounding area or upwind, and the ability of the atmosphere to disperse the air pollutants. The atmospheric pollution potential, as the term is used in this analysis, is independent of the location of emission sources and is instead a function of factors such as topography and meteorology.

The Proposed Project area is located just south of the community of Smith River, in Del Norte County, approximately five miles south of the Oregon Border. Del Norte, Trinity, and Humboldt Counties define the North Coast Air Basin (North Coast). The climate of the region is maritime, with high humidity prevailing throughout the year. Annual average rainfall in Fort Dick, which is approximately five miles south of the Proposed Project site, is approximately 78 inches (WRCC, 2007). The primary rainy season is from October through April, accounting for approximately 90 percent of annual precipitation in the area. May through September is typically dryer and is marked by regular intrusions of low clouds and fog.

During a typical year, the low temperatures in the Proposed Project area are in the mid-30s, and the highs will reach the mid-70s. The reason for the small temperature range is the area's proximity to the Pacific Ocean. The prevailing northwest wind blows across the cold, up-welling water that is almost always present along the Pacific north coast. During the warm season, typically from June to October, northerly winds prevail over the coastal waters as a semi-permanent ridge dominates the Eastern Pacific, and a semi-permanent trough develops over interior California. In the cool season, the North Coast periodically has strong southerly winds as East Pacific storms make landfall.

Existing Air Quality

The NCUAQMD operates one air quality monitoring station in the vicinity of the Proposed Project. Existing levels of air quality in the vicinity of the Proposed Project can generally be inferred from ambient air quality measurements conducted by NCUAQMD at its Crescent City – 880 Northcrest Drive monitoring station. The Crescent City monitoring station only measures particulate matter equal to or less than 10 microns (PM₁₀) concentrations.

Background ambient concentrations of pollutants are determined by pollutant emissions in a given area as well as wind patterns and meteorological conditions for that area. As a result, background concentrations can vary among different locations within an area. However, areas located close together and exposed to similar wind conditions can be expected to have similar background pollutant concentrations. Table 2.3-1 shows a five-year (2002 – 2006) summary of monitoring data collected from the Crescent City station, compared with California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). As indicated in the table, no violations of the PM₁₀ standards were recorded in Crescent City during the five year study period.

Sensitive Receptors

For the purposes of air quality and public health and safety, sensitive receptors are generally defined as land uses with population concentrations that would be particularly susceptible to disturbance from dust and air pollutant concentrations, or other disruptions associated with project construction and/or operation. Sensitive receptor land uses generally include schools, day care centers, libraries, hospitals, residential area, and parks. Some sensitive receptors are considered to be more sensitive than others to air pollutants. The reasons for greater than average

**TABLE 2.3-1
AIR QUALITY DATA SUMMARY (2002–2006) FOR THE PROJECT AREA**

Pollutant	Standard	Monitoring Data by Year				
		2002	2003	2004	2005	2006
Particulate Matter (PM ₁₀):						
Highest 24 Hour Average (µg/m ³)		39.4	37.0	44.0	31.4	43.0
Estimated Days over State Standard	50	0	0	0	0	0
Annual Average (µg/m ³)	30	18.7	14.1	17.9	18.0	11.3

NOTES: µg/m³ = micrograms per cubic meter
SOURCE: CARB 2007a

sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system. The closest sensitive receptors to the Proposed Project site are residences along E. Denny Street, approximately 500 feet to the south.

Regulatory Context

Air quality within the North Coast is addressed through the efforts of various federal, State, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The air pollutants of concern and agencies primarily responsible for improving the air quality within the air basin and the pertinent regulations are discussed below.

Criteria Air Pollutants

Regulation of air pollution is achieved through both national and State ambient air quality standards and emission limits for individual sources of air pollutants. As required by the federal Clean Air Act, the USEPA has identified criteria pollutants and has established NAAQS to protect public health and welfare. NAAQS have been established for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), PM₁₀, particulate matter equal to or less than 2.5 microns (PM_{2.5}), and lead (Pb). These pollutants are called “criteria” air pollutants because standards have been established for each of them to meet specific public health and welfare criteria.

To protect human health and the environment, the USEPA has set “primary” and “secondary” maximum ambient thresholds for all six criteria pollutants. Primary thresholds were set to protect human health, particularly sensitive receptors such as children, the elderly, and individuals

suffering from chronic lung conditions such as asthma and emphysema. Secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings.

The NAAQS are defined as the maximum acceptable concentration that may be reached, but not exceeded more than once per year. California has adopted more stringent ambient air quality standards for most of the criteria air pollutants. Table 2.3-2 presents both sets of ambient air quality standards (i.e., national and State) and provides a brief discussion of the related health effects and principal sources for each pollutant. California has also established State ambient air quality standards for sulfates, hydrogen sulfide, and vinyl chloride; however, air emissions of these pollutants are not expected under the Proposed Project and thus, there is no further mention of these pollutants in this IS/MND. The North Coast generally has very good air quality and is in attainment or unclassified for all federal and State ambient air quality standards, with the exception of the State standard for PM₁₀.

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). ROG and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

Carbon Monoxide

CO is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

**TABLE 2.3-2
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES**

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 Hour 8 Hour	0.09 ppm 0.07 ppm	– 0.08 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases and NO _x react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 Hour 8 Hour	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 Hour Annual	0.25 ppm –	– 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 Hour 3 Hour 24 Hour Annual	0.25 ppm – 0.04 ppm –	– 0.5 ppm 0.14 ppm 0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM ₁₀)	24 Hour Annual	50 µg/m ³ 20 µg/m ³	150 µg/m ³ 50 µg/m ³	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter (PM _{2.5})	24 Hour Annual	– 12 µg/m ³	35 µg/m ³ 15 µg/m ³	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO _x , SO ₂ , and organics.
Lead	Monthly Quarterly	1.5 µg/m ³ –	– 1.5 µg/m ³	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.

ppm = parts per million
µg/m³ = micrograms per cubic meter

SOURCE: CARB 2007b and SCAQMD, 1993

Particulate Matter

Particulate matter, including PM₁₀ and PM_{2.5}, represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

Other Criteria Pollutants

SO₂ is a combustion product of sulfur or sulfur-containing fuels such as coal. SO₂ is also a precursor to the formation of atmospheric sulfate and particulate matter (PM₁₀ and PM_{2.5}) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline. The phase-out of leaded gasoline in California resulted in decreasing levels of atmospheric lead.

Greenhouse Gas Emissions and Climate Change

Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. These gases can prevent the escape of heat in much the same way as glass in a greenhouse. This is often referred to as the "greenhouse effect," and it is responsible for maintaining a habitable climate. On Earth the gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF₆). Enhancement of the greenhouse effect can occur when concentrations of these gases exceed the natural concentrations in the atmosphere. Of these gases, CO₂ and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF₆ is a greenhouse gas (GHG) commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 23,900 times the global warming potential as CO₂.¹ There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2007c). Globally, climate change has the potential to

¹ Global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. CO₂ is assigned a global warming potential of 1.

impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

The California Energy Commission (CEC) estimated that in 2004, California produced 492 million gross metric tons of CO₂-equivalent greenhouse gas emissions (CEC, 2006). The CEC found that transportation is the source of 41 percent of the State's GHG emissions; followed by electricity generation at 22 percent and industrial sources at 21 percent.

Regulatory Setting

Federal

USEPA is responsible for implementing the myriad programs established under the federal Clean Air Act, such as establishing and reviewing the NAAQS and judging the adequacy of State Implementation Plans (SIPs), but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented.

State

The California Air Resources Board (CARB) is responsible for establishing and reviewing the State standards, compiling the California SIP, securing approval of that plan from USEPA, and identifying toxic air contaminants. CARB also regulates mobile sources of emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air quality management districts, which are organized at the county or regional level. County or regional air quality management districts are primarily responsible for regulating stationary sources at industrial and commercial facilities within their geographic areas and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act.

The regional air quality plans prepared by air quality districts throughout the State are compiled by the CARB to form the SIP. The local air districts also have the responsibility and authority to

adopt transportation control and emission reduction programs for indirect and area-wide emission sources.

Assembly Bill 32 – California Global Warming Solutions Act

California Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, was enacted as legislation in 2006 and requires CARB to establish a statewide GHG emission cap for 2020 based on 1990 emission levels. AB 32 requires CARB to adopt regulations by January 1, 2008, that will identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and CARB is authorized to enforce compliance with the program that will be developed. Under AB 32, CARB also is required to adopt, by January 1, 2008, a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. By January 1, 2011, CARB is required to adopt rules and regulations (which shall become operative January 1, 2012) to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 permits the use of market-based compliance mechanisms to achieve those reductions and also requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

North Coast Unified Air Quality Management District

The NCUAQMD is the regional agency empowered to regulate air pollution emissions from stationary sources in the Humboldt, Trinity, and Del Norte County portions of the North Coast Air Basin. NCUAQMD regulates air quality through its permit authority over most types of stationary emissions and through its planning and review activities. NCUAQMD operates air quality monitoring stations that provide information on ambient concentrations of criteria air pollutants.

PM₁₀ Attainment Plan

To address the North Coast Air Basin's nonattainment status with respect to PM₁₀, the NCUAQMD prepared a draft PM₁₀ attainment plan identifying cost-effective control measures that can be implemented to bring ambient PM₁₀ levels down to the California standards. The control strategies include transportation control measures (public transit, ridesharing, vehicle buy-back program, traffic flow improvement, bicycle incentives, etc.), land use measures to reduce reliance on automobiles, and open burning measures (NCUAQMD, 1995). The NCUAQMD is currently reviewing the attainment plan and expects to update the plan in 2008 (NCUAQMD, 2007).

Naturally Occurring Asbestos

The NCUAQMD is required by State law to implement and enforce all State Airborne Toxic Control Measures (ATCM). The NCUAQMD has instituted a registration program for all construction, grading, quarrying, and surface mining operations within its jurisdiction. An applicant must first register with the NCUAQMD prior to engaging in specific activities covered by the regulation. Registration is also required for existing operations, projects, and facilities. As part of the registration process, the applicant may be required to submit a dust control plan.

Notification must be made to the NCUAQMD at least 14 days before any activity begins. However, the Naturally Occurring Asbestos ATCM includes the series of exemptions. One of the exemptions is for projects that are located in an area not designated as an ultramafic rock unit area by the California Department of Conservation Division of Mines and Geology (NCUAQMD, 2007). This exemption appears to apply to the Proposed Project because the nearest mapped ultramafic rock unit area is approximately four to five miles east of the Proposed Project site (DOC, 2000).

Rule 430 – Fugitive Dust Emissions

NCUAQMD Rule 430 prohibits the handling, transporting, or open storage of materials in such a manner which allows or may allow unnecessary amounts of particulate matter to become airborne. The rule requires project applicants to take reasonable precautions to prevent particulate matter from becoming airborne, including, but not limited to, the following provisions:

- Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.
- Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.
- The use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land
- The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.
- The paving of roadways and their maintenance in a clean condition.
- The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

Del Norte County

The Del Norte County General Plan includes several air resources policies that may be applicable to the Proposed Project, including (Del Norte County, 2003):

Policy 1.F.5: The County shall continue to encourage project proponents to consult early in the planning process with the County and the NCUAQMD regarding the applicability of transportation control measures (TMC) programs.

Policy 1.F.6: The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.

Policy 1.F.9: Unless otherwise specifically permitted, the County shall require developers to pave all access roads, driveways, and parking areas serving new commercial and industrial developments.

Air Quality Impacts and Mitigation Measures

This section presents an analysis of the potential air quality impacts associated with Proposed Project construction and operation. Emissions from construction equipment exhaust and generation of particulate matter (fugitive dust) are the primary concerns in evaluating short-term air quality impacts. Long-term impacts, however, would be negligible since emission-related activities associated with Proposed Project operations would be limited to periodic maintenance and inspection trips similar to what is occurring now for the existing Simonson Substation.

Proposed Project construction would employ a variety of construction and grading equipment. Exhaust pollutants would be emitted during construction activities from motor-driven construction equipment, construction and workers' vehicles, and fugitive dust would be generated by ground disturbing activities. Projected construction emissions are presented in Table 2.3-3. The Urban Emissions model (URBEMIS) 2007 version 9.2.2 program was used to estimate construction emissions for the Proposed Project. URBEMIS 2007 is an approved emissions inventory software program that allows the user to estimate pollutant emissions associated with proposed projects.

a) Conflict with or obstruct implementation of the applicable air quality plan: *No Impact.*

The applicable air quality plan in the study area is the NCUAQMD's PM₁₀ Attainment Plan (Plan). The Plan identifies control strategies, including transportation control measures (public transit, ridesharing, vehicle buy-back program, traffic flow improvement, bicycle incentives, etc.), land use measures to reduce reliance on automobiles, and open burning measures (NCUAQMD, 1995). The Plan includes no control strategies directly related to the Proposed Project or construction projects in general; therefore, implementation of the Proposed Project would not 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: *Less than significant.*

Proposed Project construction-related equipment exhaust and fugitive dust emissions would result from a variety of activities, including site preparation and other earth moving activities, construction of the proposed substation and new tap pole, demolition of the existing substation and existing tap poles, and travel by employee vehicles and tractor trailer haul trucks. Onsite heavy equipment that would be required to construct the proposed Morrison Creek Substation and demolish the existing Simonson Substation would include a crane, pick-up trucks, a backhoe, a bulldozer, a roller, a bucket truck, and a dump truck. PacifiCorp anticipates that Proposed Project construction activities would occur over an approximate three-month period.

Construction

The NCUAQMD does not have established CEQA significance criteria to determine the significance of impacts that would result from projects such as the Proposed Project. However, the NCUAQMD does have criteria pollutant significance thresholds for new or modified stationary source projects proposed within the NCUAQMD’s jurisdiction. In lieu of CEQA significance thresholds, the NCUAQMD has indicated that it is appropriate for lead agencies to compare proposed project emissions to its new or modified stationary source significance thresholds, which are 40 tons/year for ROG and NO_x, 100 tons/year for CO, and 16 tons/year for PM₁₀ (NCUAQMD, 2006).

The URBEMIS 2007 (version 9.2.2) emissions modeling program was used to estimate construction emissions for the Proposed Project. Predicted unmitigated annual construction emissions are presented in Table 2.3-3 and are compared to the NCUAQMD thresholds of significance.

**TABLE 2.3-3
CONSTRUCTION EMISSIONS ESTIMATES**

Pollutant	Significance Threshold (tons/year)	Project Construction Emissions (tons/year)	Significant?
ROG	40	0.04	No
NO _x	40	0.39	No
CO	100	0.30	No
PM ₁₀	16	0.10	No
PM _{2.5}	None available	0.03	No

Notes: The Proposed Project’s construction emissions estimates were made using URBEMIS 2007 v.9.2.2. Equipment numbers and types are based on the Applicant’s estimates (PacifiCorp, 2007) and the experience of the CPUC’s CEQA consultant. See Appendix B for the URBEMIS output sheets, which provide the estimation assumptions, including equipment inventories and hours of equipment use.

As shown in Table 2.3-3, construction would result in emissions below the NCUAQMD thresholds. In addition, construction activities would be short-term in duration and would be required to comply with all applicable NCUAQMD Rules and Regulations, including Rule 430 (Fugitive Dust Emissions). Therefore, emissions generated by Proposed Project construction activities would be less than significant.

Operations

Air emissions that would be created by the Proposed Project, once operational, are those that would be associated with maintenance and inspection of the substation. Normal maintenance and inspection would not involve grading, excavation, or the use of any motor-driven construction equipment, but would require the use of a pick-up truck, or other automobile type, to access the substation site once a month. Exhaust and fugitive dust emissions that would be associated with Proposed Project maintenance and inspection activities would be negligible and would be considerably less than those presented in Table 2.3-3, estimated for construction. In addition, Del Norte County has an established policy

(No. 1.F.9) that requires developers to pave all access roads and driveways associated with commercial and industrial developments. Implementation of this policy would further reduce fugitive dust emissions. Operational impacts associated with the Proposed Project would be less than significant.

- 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): *Less than significant.***

The Proposed Project study area is in attainment or unclassified status for all of the NAAQS and CAAQS, with the exception of the CAAQS for PM₁₀. Because long term operations of the Proposed Project would result in negligible emissions, operations would not be cumulatively considerable. Construction activities associated with the Proposed Project could have a temporary impact on local air quality through short-term increases in criteria pollutant exhaust emissions (i.e., NO_x, ROG, CO, SO₂, PM₁₀, and PM_{2.5}) and fugitive dust, which could have a cumulative effect when combined with the other projects described in Section 2.17 b. However, the Proposed Project's temporary air quality construction impacts would be less than significant because the Proposed Project's contribution to the cumulative impact would not be considerable. Temporary emissions of CO₂ would also be generated during construction activities; however, given the short-term nature of construction activities, these GHG emissions would not be cumulatively considerable. As a result, the Proposed Project would not have a significant cumulatively considerable air quality impact.

- d) **Expose sensitive receptors to substantial pollutant concentrations: *Less than significant.***

The closest sensitive receptors to the Proposed Project site are approximately 500 feet to the south. Construction activities would generate emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. These emissions could expose sensitive receptors to pollutant concentrations. However, because impacts related to short-term construction emissions would not exceed the significance thresholds (see discussion under b, above) and because emissions would not be emitted immediately adjacent to any sensitive receptors, impacts would also be less than significant.

- e) **Create objectionable odors affecting a substantial number of people: *Less than significant.***

The operation of the Proposed Project would not create odorous emissions. Proposed Project construction activities could include odor sources, such as diesel equipment operation, which could result in the creation of objectionable odors. However, because the construction activities would be temporary and would not take place in the immediate vicinity of residences or other sensitive receptors, these activities would not affect a

substantial number of people. Because the Proposed Project would not create objectionable odors affecting a substantial number of people, impacts would be less than significant.

f) Result in substantial long-term emissions of greenhouse gases: *Less than significant.*

At the present time, there are no rules or regulations in place from the CARB, State Clearinghouse, NCUAQMD, or other resource agency applicable to the Proposed Project that define a “significant” source or amount of GHG emissions, and there are no applicable specific GHG emission limits or caps. And, as of the time of this writing, no air districts within California have established emission thresholds for determining the significance of GHGs from development projects.

Also, while the goal of AB 32 is to reduce in-State GHG emissions to 1990 levels by the year 2020, there is no clear metric that would determine if a single project advances toward or away from this goal. Because global warming is a global issue, a pound of GHGs emitted in California would presumably have the same effect, individually and cumulatively, as a pound of GHGs emitted anywhere else in the world. Whether a single project may or may not result in new GHG emissions would need to consider any collateral change in GHG emissions that may occur elsewhere as a result of the project.

Long term GHG emissions that would be associated with the Proposed Project would be limited to the use of a pick-up truck or other small vehicle type to access the Morrison Creek Substation site once a month. This activity would not be substantially different than what is taking place now for the existing Simonson Substation. There would be no emissions of SF₆ from the Proposed Project, as the new Morrison Creek Substation would not use SF₆ gas.

With regard to construction activities, the Proposed Project’s GHG emissions in the form of CO₂ have been estimated to be approximately 41 metric tons (see Appendix B for estimation assumptions). Under CEQA, one of the main objectives is to identify the significant environmental effects of a project (if any), and to indicate the manner in which those significant effects can be mitigated or avoided (Public Resources Code § 21002.1(a)). “Significant effect” is defined under CEQA as “a substantial or potentially substantial, adverse change in the environment” (Public Resources Code § 21068.). The State of California has not provided guidance as to significance thresholds for assessing the impact of GHG emissions on climate change and global warming concerns. Nothing in the CEQA guidelines has yet addressed this issue.

Given the global GHG emissions rates and inherent climate variability, the CPUC is not aware of any scientifically credible methodologies for assessing project-specific climate impacts of GHG emissions. Nonetheless, the GHG emissions that would be generated by the construction of the Proposed Project would be short-term, occurring over a period of approximately three months. Because the Proposed Project would not result in any long

term considerable amounts of GHG emissions, impacts are determined to be less than significant.

References – Air Quality

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