

# Indirect Source Review Guidelines

A Technical Guide to Assess the Air Quality Impact of Land Use Projects Under the  
California Environmental Quality Act

Feather River Air Quality Management District

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## 1. Definitions/Acronyms

### 1.1. Definitions

District- Feather River Air Quality Management District, whose jurisdiction encompasses the counties of Yuba and Sutter.

Indirect Source- Any land use that generates or attracts vehicular activity which results in pollutant emissions. This includes any facility, building, structure or installation, or combination thereof which generates or attracts mobile source activity that results in the emissions of any pollutant for which there is a state ambient air quality standard.

Sensitive Receptor- Examples of sensitive receptor locations include schools, day care centers, parks/playgrounds, hospitals or nursing centers, and residential dwelling units.

Type 1 Project- A land use project under CEQA in which an operational phase exists (such as retail/commercial development or residential housing projects).

Type 2 Project- A project under CEQA in which no operational phase exists, such as roadway construction or levee projects.

### 1.2. Acronyms

AAQS-	Ambient Air Quality Standard
ATCM-	Air Toxic Control Measure
BACT-	Best Available Control Technology
CARB-	California Air Resources Board
EPA-	Environmental Protection Agency
EIR-	Environmental Impact Report
EIS-	Environmental Impact Statement
FRAQMD-	Feather River Air Quality Management District
GHG-	Greenhouse gas
HAP-	Hazardous Air Pollutant
MND-	Mitigated Negative Declaration
ND-	Negative Declaration
NESHAP-	National Emission Standards for Hazardous Air Pollutants
NOA-	Naturally Occurring Asbestos
NSVPA-	Northern Sacramento Valley Planning Area
PM <sub>10</sub> -	Particulate matter less than 10 microns
PM <sub>2.5</sub> -	Particulate matter less than 2.5 microns
ROG-	Reactive Organic Gases
SFNA-	Sacramento Federal Nonattainment Area
SVAB-	Sacramento Valley Air Basin
T-BACT-	Toxics Best Available Control Technology
TAC-	Toxic Air Contaminant
VOC-	Volatile Organic Compounds

## 2. Introduction

### 2.1. Purpose

The purpose of these guidelines is to provide a means to identify development projects that may have a significant adverse effect on air quality. This document also provides mitigation measures developers can use to reduce the air quality impacts of their projects. Identification of significant air quality impacts and mitigation in the initial stages of the development process will allow time for design changes for air quality mitigation. The intent of this document is fulfilled if the air quality impact of a conceptual project design is quickly estimated, and mitigation measures are incorporated into the project, prior to formal application submittal.

The California Environmental Quality Act (CEQA) requires that public agencies (e.g. local, county, regional, and state government) consider and disclose the environmental effects of their decisions to the public and governmental decision makers. Further, CEQA mandates that agencies implement feasible mitigation measures or alternatives that would mitigate significant effects on the environment. The District may act as a Lead Agency, a Responsible Agency, or a Reviewing Agency under CEQA.

### 2.2. District's Role in CEQA

#### Lead Agency

A Lead Agency is the public agency with the principal responsibility for carrying out or approving a project subject to CEQA. In general, the local government agency with jurisdiction over land use (e.g. a city or county) is the preferred Lead Agency for land development projects. The District will undertake the Lead Agency role if a project requires a District operating permit and no other agency has prepared (or is preparing) a CEQA document for the project. In addition, the District serves as a Lead Agency for its own projects (e.g. adoption of rules or attainment plans).

#### Responsible Agency

A Responsible Agency is a public agency, other than the Lead Agency, that has responsibility for carrying out or approving a project. The District is a Responsible Agency for projects or portions of a project that require a District operating permit, or any other approval by the District. The Responsible Agency may only consider those aspects of the project that are within the agency's area of expertise or which are required to be carried out or approved by the agency.

As a Responsible Agency, the District may help the Lead Agency identify applicable District rules, provide guidance and assistance on applicable air quality analysis methodologies, and help address other air quality related issues. The District will also submit comments to the Lead Agency through the intergovernmental review process on the adequacy of the Lead Agency's air quality analysis. As part of the review, the District may recommend mitigation measures to reduce or eliminate impacts.

When conducting its review, the District will review the air quality section of the environmental document and other sections that address areas that may contribute to air quality impacts (e.g. traffic and circulation). At the conclusion of the District's review, the District will submit comments to the Lead Agency that identify deficiencies in the air quality analysis, suggest approaches to correct the deficiencies, and recommend additional feasible mitigation measures, where appropriate.

#### Commenting or Reviewing Agency

An agency that is neither a Lead Agency nor Responsible Agency may be an agency with "jurisdiction by law" over a particular natural resource. This type of agency may be called a Commenting or Reviewing Agency. The District has a program to review air quality analyses in environmental documents submitted to it under CEQA Guidelines Section 15086. As such, the District routinely reviews and provides comments on projects through the intergovernmental review process but for which the agency has no discretionary permit authority and, therefore, is neither a Lead Agency nor Responsible Agency.

The environmental review process conducted by the District as a Reviewing Agency includes, but is not limited to:

- Assessment for project conformance with local, state, and federal rules and regulations;
- The accuracy of the air quality setting data;
- Appropriateness of modeling assumptions, if applicable;
- Whether air quality impacts are adequately described;
- The extent to which recommended mitigation measures are incorporated into the project to reduce impacts;
- Assessment for potential emissions of toxic or hazardous air pollutants; and
- Whether the District agrees with the overall conclusions regarding impacts on air quality.

### **2.3. Projects Subject to Air Quality Analysis**

The air quality considerations that warrant particular attention during the environmental review process include: consistency with District rules and regulations; land use conflicts and exposure of sensitive receptors to odors, toxics, and criteria pollutants; and land use and design measures to encourage alternatives to the automobile and energy conservation. Lead Agencies and project proponents are encouraged to consult with the District as early as possible on these issues.

The District is responsible for implementing programs and regulations required by the Federal Clean Air Act and the California Clean Air Act, including attaining and maintaining ambient air quality standards. As part of this mandate, the District prepares attainment plans which include measures to reduce air contaminants from indirect sources. In

general, any proposed project which has the potential to emit greater than 25 pounds per day of oxides of nitrogen (NO<sub>x</sub>) or Reactive Organic Gases (ROG) or 80 pounds per day of particulate matter less than 10 microns (PM<sub>10</sub>) should be submitted to the District for review.

## **2.4. Air Pollutants and Health Impacts**

### **2.4.1. Ozone**

Ozone, an important ingredient of smog, is a highly reactive and unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through complex reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Key pollutants involved in ozone formation are reactive organic gases (ROG) and nitrogen oxide gases (NO<sub>x</sub>), which are known as ozone precursors.

Exposure to levels of ozone above the current ambient air quality standards can lead to human health effects such as lung inflammation and tissue damage and impaired lung functioning. Ozone exposure is also associated with symptoms such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms. The greatest risk for harmful health effects belongs to outdoor workers, athletes, children and others who spend greater amounts of time outdoors during smoggy periods. Elevated ozone levels can reduce crop and timber yields, as well as damage native plants. Ozone can also damage materials such as rubber, fabrics and plastics.

### **2.4.2. Particulate Matter**

Particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. Particles 10 microns or less in diameter are defined as "respirable particulate matter" or "PM<sub>10</sub>." Fine particles are 2.5 microns or less in diameter (PM<sub>2.5</sub>) and can contribute significantly to regional haze and reduction of visibility in California.

Extensive research indicates that exposure to outdoor PM<sub>10</sub> and PM<sub>2.5</sub> levels exceeding current air quality standards is associated with increased risk of hospitalization for lung and heart-related respiratory illness, including emergency room visits for asthma. PM exposure is also associated with increased risk of premature deaths, especially in the elderly and people with pre-existing cardiopulmonary disease. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses. Besides reducing visibility, the acidic portion of PM (nitrates, sulfates) can harm crops, forests, aquatic and other ecosystems.

### **2.4.3. Other Criteria Pollutants**

#### **a. Nitrogen Dioxide**

Nitrogen dioxide (NO<sub>2</sub>) is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract. This pollutant is also an essential ingredient in the formation of ground-level ozone pollution. NO<sub>2</sub> is one of the nitrogen oxides emitted from high-temperature combustion processes, such as those occurring in trucks, cars and power plants. In the presence of sunlight, complex reactions of nitrogen oxides with ozone and other air pollutants produce the majority of NO<sub>2</sub> in the atmosphere. Indoors, home heaters and gas stoves also produce substantial amounts of NO<sub>2</sub>.

Exposure to NO<sub>2</sub> along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO<sub>2</sub> above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO<sub>2</sub> exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.

#### **b. Carbon Monoxide**

Carbon monoxide (CO) is a colorless, odorless gas. It results from the incomplete combustion of carbon-containing fuels such as gasoline or wood, and is emitted by a wide variety of combustion sources. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen. Exposure to CO is especially harmful to those with heart disease, because the heart has to pump harder to get enough oxygen to the body. CO exposure has been associated with aggravation of angina pectoris and other aspects of coronary heart disease, decreased exercise tolerance in people with peripheral vascular disease and lung disease, impairment of central nervous system functions, and possible increased risk to fetuses.

#### **c. Sulfur Dioxide**

Sulfur dioxide (SO<sub>2</sub>) is a gaseous compound of sulfur and oxygen. SO<sub>2</sub> is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO<sub>2</sub> is also emitted from several industrial processes, such as petroleum refining and metal processing.

#### **d. Sulfates**

Sulfates (SO<sub>4</sub><sup>2-</sup>) are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and / or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO<sub>2</sub>) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO<sub>2</sub> to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

#### **e. Visibility-Reducing Particles**

Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

#### **f. Hydrogen Sulfide**

Hydrogen sulfide (H<sub>2</sub>S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.

#### **g. Lead**

Lead is a relatively soft and chemically resistant metal. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Because it was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) and can get re-suspended into the air.

#### **h. Vinyl Chloride**

Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

### **2.4.4. Toxics**

Toxic Air Contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may have the potential to cause a hazard to human health. Chapter 6 discusses sources of TACs and health impacts.

### **2.4.5. Odors**

The evaluation of potential odor impacts pertains directly to the following question regarding air quality from the Environmental Checklist Form (Appendix G) of the State CEQA Guidelines (available here: [http://ceres.ca.gov/ceqa/guidelines/Appendix\\_G.html](http://ceres.ca.gov/ceqa/guidelines/Appendix_G.html)):

III.e. Would the project create objectionable odors affecting a substantial number of people?

Lead Agencies should qualitatively evaluate potential odor impact from two scenarios: the proposed project would locate receptors where they would be affected by an existing odor source, or the proposed project would generate odors that would affect a substantial number of people.



The following are common odor sources: agricultural and food processing facilities, landfills, composting facilities, and wastewater treatment plants. For more information on objectionable odors please see Chapter 7.

#### **2.4.6. Greenhouse Gases**

The warming trend in Earth's atmosphere, also known as climate change, is related to the release of greenhouse gases (GHG) into the atmosphere. The GHG's of main concern are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Direct human health impacts from climate change are not well established. Changes to climate may lead to sea level rise, spread of diseases, changes to agricultural production, water supply, and weather patterns. Increases in wildland fires and extreme heat days leading to ozone formation have a direct impact to air quality in the District. Chapter 8 provides more information on GHG emissions.

## 2.5. Ambient Air Quality Standards and the District's Attainment status

### AAQS

The National Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) establish Ambient Air Quality Standards (AAQS) for criteria pollutants to protect public health and welfare. A list of National EPA and CARB AAQS is included as Appendix A.

The District is designated as either attainment or nonattainment for each of the AAQS. If there is not enough information to designate an area, the area is unclassified. Table 2.5-1 lists the District's attainment status as of April 6, 2010. The District's attainment status may change due to improvements in ambient air quality measured at monitoring sites, changes in AAQS (both State and National), or other reasons. The District's current attainment status can be verified by calling the District or by checking the website at <http://www.fraqmd.org/2004%20Area%20Designations.htm>.

Table 2.5-1: Feather River AQMD Attainment Status

Criteria Pollutant	State Designation	National Designation
1-Hour Ozone	S. Sutter- Serious Nonattainment; Remainder of District- Nonattainment- Transitional (2)	No standard
8-Hour Ozone	Nonattainment- Transitional (2)	S. Sutter-Serious Nonattainment (1); Elevations over 2,000 feet in Sutter Buttes-Marginal Nonattainment; Remainder of District- Unclassified/Attainment
PM <sub>10</sub>	Nonattainment	Unclassified
PM <sub>2.5</sub>	Attainment (3)	Nonattainment (4)
Carbon Monoxide	Sutter-Attainment Yuba-Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	
Lead	Attainment	
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

Designations are as of April 6, 2010.

- (1) The District requested to be bump-up to a Severe Nonattainment classification in February, 2008. The EPA is processing this request.
- (2) The District was designated as Nonattainment-Transitional on March 25, 2010.
- (3) The District was designated as Attainment on March 25, 2010.
- (4) The District was designated as Nonattainment effective January 14, 2010.

## Air Quality Plans

### **Sacramento Federal Nonattainment Area 8-Hour Ozone NAAQS State Implementation Plan**

The southern portion of Sutter County (as defined in 40CFR Section 81.305) is part of the Sacramento Federal Nonattainment Area (SFNA). The SFNA is designated as a serious nonattainment area for the National 8-Hour Ozone AAQS. The SFNA submitted a plan to meet the attainment deadline of a severe nonattainment area in 2019. This plan includes regulations and measures that the District shall adopt and implement in order to meet the standard. The plan is available for review on the District's website at: [http://www.fraqmd.org/air\\_quality\\_plans.htm](http://www.fraqmd.org/air_quality_plans.htm).

### **Northern Sacramento Valley Planning Area Attainment Plan for California Ozone AAQS**

Nonattainment areas for the California Ozone AAQS are required to submit a plan every three years demonstrating progress made toward achieving the standard. The District partnered with other Northern Sacramento Valley nonattainment air districts in completing the plan. The most recent submittal is the 2006 NSVPA Plan. The District is in the process of revising the plan for 2009.

The NSVPA Attainment Plan includes all of Yuba County and the northern portion of Sutter County not included in the Sacramento Federal Nonattainment Area. It is available on the District's website at: [http://www.fraqmd.org/air\\_quality\\_plans.htm](http://www.fraqmd.org/air_quality_plans.htm). The District was designated Nonattainment-Transitional due to improving air quality on March 25, 2010.

### **SB 656 (Sher) PM<sub>10</sub> Reduction Measures**

As a nonattainment area for California PM<sub>10</sub> AAQS, the District has adopted a schedule of adoption of control measures and programs to reduce emissions of PM<sub>10</sub>. The schedule was adopted by the District's Board of Directors in 2006 and is available on the District's website at <http://www.fraqmd.org/SB%20656.htm>.

### **PM<sub>2.5</sub> NAAQS State Implementation Plan**

The National PM<sub>2.5</sub> AAQS was lowered in 2006 from 60 µg/m<sup>3</sup> to 35 µg/m<sup>3</sup>. Most of Yuba County and all of Sutter County have been designated nonattainment for the 2006 NAAQS. Official designations were published in the Federal Register November 14, 2009, and became effective December 14, 2009. The District has three years to submit a plan to EPA which demonstrates the District shall attain the NAAQS within five years of designation. If the District fails to attain the standard the area risks losing federal highway funding, as well as increased offset ratios.

The District is in the process of developing the attainment plan. Updates and information will be posted on the District website as it becomes available. Beginning one year after

official designation, general conformity and transportation conformity rules shall apply. More information on conformity is provided in Chapter 11.

## **2.6. Meteorology and Air Quality Monitoring in the District**

### **Monitoring**

The CARB maintains a monitoring station in Yuba City that measures ozone, particulate matter, nitrogen dioxide, and meteorological conditions. This monitor is located at ground level and is indicative of the ambient air quality conditions for the majority of residents in Yuba and Sutter Counties. Monitoring data from the Yuba City-Almond Street monitor should be used for all environmental analysis of historical air quality. The District recommends using CARB's Aerometric Data Analysis and Management System (ADAM), available at <http://www.arb.ca.gov/adam/welcome.html> for historical air quality data.

The CARB also maintains a monitoring station in the Sutter Buttes at the top of the South Butte. This monitor is used to track transport ozone and is not indicative of ambient air quality at ground level. The Sutter Buttes has been designated as a separate nonattainment area existing 2,000 feet above the valley floor for 8-Hour ozone NAAQS. Environmental analyses should not include data from the Sutter Buttes station except for an evaluation of transport ozone conditions.

### **Geography and Meteorology**

FRAQMD is part of the Sacramento Valley Air Basin (SVAB). The SVAB includes the counties of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and portions of Placer and Solano. The SVAB is bounded on the north by the Cascade Range, on the south by the San Joaquin Valley Air Basin, on the east by the Sierra Nevada, and on the west by the Coast Range.

Summer conditions are typically characterized by high temperatures and low humidity, with prevailing winds from the south. Summer temperatures average approximately 90°F during the day and 50°F at night.

Winter conditions are characterized by occasional rainstorms interspersed with stagnant and sometimes foggy weather. Winter daytime temperatures average in the low 50s and nighttime temperatures average in the upper 30s. During winter, north winds become more frequent, but winds from the south predominate. Rainfall occurs mainly from late October to early May, averaging 17.2 inches per year, but varies significantly each year.

In addition to prevailing wind patterns that control the rate of dispersion of local pollutant emissions, Yuba and Sutter counties experience two types of inversions that affect the air quality. The first type of inversion layer contributes to photochemical smog problems by confining pollution to a shallow layer near the ground. This occurs in the summer, when sinking air forms a "lid" over the region. The second type of inversion occurs when the air near the ground cools while the air aloft remains warm. These inversions occur during winter

nights and can cause localized air pollution “hot spots” near emission sources because of poor dispersion.

### 3. Thresholds of Significance

Projects that are subject to CEQA generally undergo a preliminary evaluation in an Initial Study. The Initial Study is used to determine if a project may have a significant effect on the environment. The Initial Study should evaluate the potential impact of a proposed project on air quality. The air quality impact of a project is determined by examining the types and levels of emissions generated by the project, the existing air quality conditions, and neighboring land uses. The initial study should analyze all phases of project planning, construction and operation, as well as cumulative impacts. When considering a project's impact on air quality, a lead agency should provide substantial evidence that supports its conclusions in an explicit, quantitative analysis whenever possible.

The State CEQA Guidelines Appendix G (included as Appendix D in this document) presents a modal initial study checklist. This checklist suggests criteria for determining whether a project will have a potentially significant impact on air quality. According to the checklist, a project will have a potentially significant impact if it will:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute to an existing or projected air quality violation.
- Result in 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 that exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

In addition, the District has adopted Thresholds of Significance to assist Lead Agencies in determining whether a project may have a significant impact on air quality. If a Lead Agency determines that the proposed project would exceed any of these Thresholds, then an EIR should be prepared. Where no significant air quality impacts of a project or plan can be identified in the Initial Study, the District recommends that the Lead Agency either prepare a Negative Declaration or include in the EIR a statement explaining the reasons for determining air quality impacts as less than significant.

### 3.1. FRAQMD Thresholds of Significance

Project Phase	Nitrogen Oxides (NO <sub>x</sub> )	Reactive Organic Gases (ROG)	Particulate Matter less than 10 microns (PM <sub>10</sub> )	Particulate Matter less than 2.5 microns (PM <sub>2.5</sub> )	Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> )
Operational	25 lbs/day	25 lbs/day	80 lbs/day	Not Yet Established	Not Yet Established
Construction	25 lbs/day multiplied by project length, not to exceed 4.5 tons/year *	25 lbs/day multiplied by project length, not to exceed 4.5 tons/year*	80 lbs/day	Not Yet Established	Not Yet Established

\*NO<sub>x</sub> and ROG Construction emissions may be averaged over the life of the project, but may not exceed 4.5 tons/year

## 4. Construction Generated Emissions of Criteria Air Pollutants

The District distinguishes two types of projects, Type 1 and Type 2. Type 1 projects are land use projects in which an operational phase exists. Type 2 projects have no land use component. Examples of Type 2 projects are road construction and levee projects. The District recommends that construction emissions generated by the two types of projects be evaluated and mitigation measures applied as described below.

Type 1: Is a land use project in which an operation phase exists (such as retail/commercial development or residential housing projects). The emissions generated during the operational phase of the project are considered long term and will be used to determine significance of the project. The District recommends the use of URBEMIS (most recent version), or other District approved model, to calculate operational and construction phase emissions.

If the operational emissions of a Type 1 project do not exceed the operational thresholds, and the construction emissions of NO<sub>x</sub> or ROG do not exceed the 25 lbs/day averaged over the length of the project or the PM<sub>10</sub> emissions do not exceed 80 lbs/day, the District recommends the following construction phase Standard Mitigation Measures:

1. Implement the Fugitive Dust Control Plan
2. Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringelmann 2.0).
3. The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
4. Limiting idling time to 5 minutes – saves fuel and reduces emissions. (State idling rule: commercial diesel vehicles- 13 CCR Chapter 10 Section 2485 effective 02/01/2005; off road diesel vehicles- 13 CCR Chapter 9 Article 4.8 Section 2449 effective 05/01/2008)
5. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
6. Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
7. Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

If the operational emissions of a Type 1 project do not exceed the operational thresholds, but the construction phase emissions exceed the construction thresholds of 25 lbs/day of NO<sub>x</sub> or ROG averaged over the length of the project and 80 lbs/days of PM<sub>10</sub>, the District recommends the Standard Mitigation Measures listed above in addition to the following Best Available Mitigation Measures for Construction Phase:



1. All grading operations on a project should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.
2. Construction sites shall be watered as directed by the Department of Public Works or Air Quality Management District and as necessary to prevent fugitive dust violations.
3. An operational water truck should be available at all times. Apply water to control dust as needed to prevent visible emissions violations and offsite dust impacts.
4. Onsite dirt piles or other stockpiled particulate matter should be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved non-toxic soil stabilizers according to manufacturer's specifications to all inactive construction areas.
5. All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.
6. Apply approved chemical soil stabilizers according to the manufacturers' specifications, to all-inactive construction areas (previously graded areas that remain inactive for 96 hours) including unpaved roads and employee/equipment parking areas.
7. To prevent track-out, wheel washers should be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.
8. Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.
9. Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 mph.
10. Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.
11. Reestablish ground cover on the construction site as soon as possible and prior to final occupancy, through seeding and watering.
12. Disposal by Burning: Open burning is yet another source of fugitive gas and particulate emissions and shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

Additional mitigation measures may be available and lead agencies should contact the District for more information.

Type 2 Projects: This type of project has no operational phase. The construction phase emissions are the only emissions generated by the project and significance should be based on construction

phase emissions. The URBEMIS or other District recommended land use model may not be the most appropriate for calculating emissions from these types of projects. The District recommends the Roadway Construction Emissions Model to calculate emissions from linear construction projects, such as new roadways, road widening, and levee projects. This model is available to download at: <http://www.airquality.org/ceqa/index.shtml>. Other District recommended models may be available, and the lead agency should contact the District for more information.

A Type 2 project is considered to be a less than significant impact if the averaged project life emissions do not exceed 25 lbs/day of NO<sub>x</sub> or ROG, and the daily emissions of 80 lbs/day of PM<sub>10</sub>. For example, if a project is six months, then the maximum allowed emissions are 4500 lbs or 2.25 tons. For projects that occur over multiple years, the maximum allowed emissions of NO<sub>x</sub> and ROG are 4.5 tons/year. The project should implement Standard Mitigation Measures (above) and prepare a ND.

If the Type 2 project average project life emissions exceed the thresholds of 25 lbs/day of NO<sub>x</sub> or ROG, or daily emissions of 80 lbs/day of PM<sub>10</sub>, the project must apply Best Available Mitigation Measures for Construction Phase (above) and include other mitigation to reduce the impact to below the significant thresholds. A MND may be prepared, which includes all mitigation measures, if the project is successful at mitigating emissions below the thresholds. If the project cannot mitigate below the thresholds of significance, the project should prepare an EIR and incorporate all feasible mitigation measures. The District staff are available to assist lead agencies and project applicants with selection and incorporation of feasible mitigation measures.

#### **4.1 Special Considerations for Construction Phases of Projects**

In addition to the construction air quality thresholds and mitigation measures above, there are a number of special conditions, local regulations or state/federal rules that apply to construction activities. These conditions must be addressed in proposed construction activity.

##### **Sensitive Receptors**

The proximity of sensitive receptors to a construction site constitutes a special consideration and may require an evaluation of toxic diesel particulate matter. Examples of sensitive receptor locations include schools, day care centers, parks/playgrounds, hospitals or nursing centers, and residential dwelling units. If a project is located within 1,000 feet of a sensitive receptor location, the impact of diesel particulate matter should be included in the environmental analysis. For more information on diesel particulate matter, please refer to Section 6 Toxic Air Contaminants.

##### **Diesel Idling Restrictions**

On-road vehicles must adhere to the idling restrictions of Section 2485 of Title 13 of the California Code of Regulations. The regulation applies to vehicles with a gross vehicular weight rating of 10,000 pounds and licensed for operation on highways. In general, the regulation restricts vehicle idling of the primary diesel engine to no more than 5 minutes in any location. The regulation also prohibits operation of a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on a vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted area.

Off-road vehicles must adhere to the idling restrictions of Section 2449(d)(3) of the California Air Resources Board's In-Use Off-Road Diesel Regulation. The regulation restricts idling time to 5 minutes. For more information refer to: [www.arb.ca.gov/regact/2007/ordies107/frooal.pdf](http://www.arb.ca.gov/regact/2007/ordies107/frooal.pdf).

### **Asbestos**

Naturally Occurring Asbestos (NOA) and asbestos containing material may be encountered during construction phase of a project. NOA is most likely to be found in the foothills and mountainous portions of the Feather River District. Asbestos containing materials can be present during demolition and remodeling, as well as found in utility pipes or pipelines. For more information on asbestos, refer to Section 6 Toxic Air Contaminants.

### **Permits**

Portable engines 50 horsepower (hp) or greater, and certain types of equipment commonly used during construction activities may require California statewide portable engine equipment registration (issued by the CARB) or an Air District permit. The following list is an example of types of equipment/operations that may require this type of permit:

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- Internal combustion engines;
- Unconfined abrasive blasting operations;
- Concrete batch plants;
- Rock and pavement crushing;
- Tub grinders; and
- Trommel screens.

If the above types of equipment/operations are part of the proposed project, the project applicant and/or lead agency should contact the District for more information. Equipment/Operations that typically require an Air District permit for the operational phase of the project are discussed in Section 9 Permitted Sources.

## 5. Operational Emissions of Criteria Air Pollutants

Air pollutant emissions from urban development can derive from a variety of sources, including motor vehicles, wood burning appliances, natural gas and electric energy use, combustion-powered utility equipment, paints and solvents, and equipment or operations used by various commercial and industrial facilities.

The evaluation of a project's emissions of ozone precursors (NO<sub>x</sub> and ROG) and PM<sub>10</sub> pertains to the following questions regarding air quality from the Environmental Checklist Form (Appendix D of this document) of the State CEQA Guidelines:

- III.a. Would the project conflict with or obstruct implementation of the applicable air quality plan?
- III.b. Would the project violate an air quality standard or contribute substantially to an existing or projected air quality violation?
- III.c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The District has prepared a screening table of project types not expected to exceed the significance thresholds. For projects that exceed the screening tables, or do not fit into the given land use categories, emissions should be calculated using a District approved model. The District approved model at the time these Guidelines have been adopted is the URBEMIS model. The most recent version, available free to download at:

<http://www.urbemis.com/software/download.html>. Additional models may be available and lead agencies should contact the District for more information.

Land use projects that exceed the size listed in the screening table should perform a project specific air quality analysis using URBEMIS, and incorporate Best Available Mitigation Measures (BAMM) (Appendix C) to reduce the impact to a less than significant level. If the project is successful at mitigating to below the thresholds, then the lead agency may prepare a Mitigated Negative Declaration (MND) which contains all mitigation measures along with applicable scheduled implementation.

If the project cannot mitigate below the thresholds, then an Environmental Impact Report (EIR) should be prepared which includes all feasible mitigation measures. The District is available to assist the lead agency as to the feasibility of measures. The District recommends at least 15% reduction in emissions from feasible mitigation measures. The BAMM assigns point values to each measure, whereas 1 point equates to 1% reduction in emissions.

To expedite the environmental review process, the District has calculated the size of various land use projects that are estimated to exceed the thresholds of significance. Table 5-1 is provided to assist lead agencies in determining significance, and should only be used for screening purposes.

assist lead agencies in determining significance, and should only be used for screening purposes. Projects that do not fit into one of the listed land use categories, are mixed use projects, or have exceptional circumstances should not use Table 5-1.

Table 5-1: Screening Criteria for Operational Air Quality Impacts

URBEMIS 9.2.4 Land Use Categories	Project Size Greater than Significant Threshold Emissions lbs/day	Units
<b>Residential</b>		
Single Family Homes	130	Dwelling Units
Apartments, Low Rise	160	Dwelling Units
<b>Commercial</b>		
Bank, With Drive Thru	7	1,000 sq. ft.
General Office Building	130	1,000 sq. ft.
Medical Office Building	50	1,000 sq. ft.
<b>Educational</b>		
Day Care Center	20	1,000 sq. ft.
Elementary School	115	1,000 sq. ft.
Junior High School	115	1,000 sq. ft.
High School	115	1,000 sq. ft.
Junior College	65	1,000 sq. ft.
Place of Worship	125	1,000 sq. ft.
<b>Recreational</b>		
City Park	800	Acres
Racquet/Health Club	55	1,000 sq. ft.
Fast Food Restaurant w/drive thru	2	1,000 sq. ft.
Fast Food Restaurant w/out drive thru	3	1,000 sq. ft.
High turnover (sit-down) Restaurant	13	1,000 sq. ft.
Quality Restaurant	20	1,000 sq. ft.
Motel	275	Rooms
<b>Large Retail</b>		
Home Improvement Superstore	60	1,000 sq. ft.
Regional Shopping Center	40	1,000 sq. ft.
Free-Standing Discount Store	30	1,000 sq. ft.
<b>Retail</b>		
Strip Mall	40	1,000 sq. ft.
Supermarket	17	1,000 sq. ft.
Convenience Market (w/out gas pumps)	2	1,000 sq. ft.
Gasoline/Service Station	12	Pumps
<b>Industrial</b>		
Warehouse	350	1,000 sq. ft.
General Light Industry	225	1,000 sq. ft.
General Heavy Industry	600	1,000 sq. ft.
Industrial Park	250	1,000 sq. ft.
Manufacturing	400	1,000 sq. ft.

URBEMIS 9.2.4 emissions from area and operational sources with no mitigation selected. Feather River Air Quality Management District settings, 0% hearth fireplaces and 0% wood stoves. On road emissions based on Emfac2007 V2.3.

## 6. Toxic Air Contaminates

Toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs are also referred to as toxic air pollutants or hazardous air pollutants (HAP). A wide range of sources, from industrial plants to households emit TACs.

A chemical becomes a regulated TAC after it is identified by ARB's California Air Toxics Program or the U.S. Environmental Protection Agency's (EPA) National Air Toxics Assessments, assessed for its potential for human exposure, and evaluated for its health effects on humans. ARB has listed approximately 200 toxic substances, including those identified by EPA, which are identified on the California Air Toxics Program's TAC List. More information on specific TACs and health effects of exposure is available at the ARB's Air Toxics Program website: <http://www.arb.ca.gov/toxics/toxics.htm>.

TACs can cause long-term health effects such as cancer, birth defects, neurological damage, or genetic damage; or short-term acute effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur and cancer risk is expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic substances differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed in using a Hazard Index (HI), which is the ratio of expected exposure levels to acceptable health-acceptable exposure levels.

The District recommends that CEQA documents analyze potential impacts resulting from exposure of TACs. These analyses should consider both of the following situations:

1. A new or modified source of TACs is proposed for a location near an existing residential area or other sensitive receptor, and
2. A residential development or other sensitive receptor is proposed for a site near an existing source of TACs.

The CEQA analysis shall include the following:

- A discussion of types of construction activities that would occur and the TAC emission sources associated with those activities (typically Diesel PM and asbestos);
- A discussion of TAC emission sources generated during operational phase;
- A significance determination about construction-generated TAC emissions, without mitigation;
- A significance determination about exposure to TACs from project operational phase without mitigation; and
- A discussion of feasible mitigation necessary to reduce TAC exposure resulting from project construction and operational phases, and whether the reduction would be sufficient to reduce the impact to a less-than-significant level.

Facilities and equipment that require a permit to operate from the District are screened for risks from TACs and must be in compliance with the District's Risk Management Policy. Federal major sources for TACs may be required to install Toxic Best Available Control Technology (T-BACT). Sources of TAC emissions must also comply with all applicable Air Toxic Control Measures

(ATCMs) issued by the CARB and the National Emission Standards for Hazardous Air Pollutants (NESHAPS) issued by the EPA.

For a project that includes a residential development or other sensitive receptor locating near an existing, non-permitted source of TACs, such as a roadway, truck stop, or railroad yard, the District recommends the Lead Agency use the screening tables and recommendations in the ARB's Air Quality and Land Use Handbook (available at: <http://www.arb.ca.gov/ch/landuse.htm>). The California Air Pollution Control Officers Association's (CAPCOA) Health Risk Assessments for Land Use Projects may be used as guidance for conducting health risk assessments, available at: [http://www.capcoa.org/rokdownloads/HRA/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/rokdownloads/HRA/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).

## Specific TACs of Common Occurrence in Land Use Projects

### Asbestos

#### Demolition of Asbestos-Containing Materials

Asbestos is a mineral fiber that has been used commonly in a variety of building construction materials for insulation and as a fire-retardant. When asbestos-containing materials are damaged or disturbed by repair, remodeling or demolition activities, microscopic fibers become airborne and can be inhaled into the lungs, where they can cause significant health problems. Demolition of existing buildings and structures would be subject to the National Emissions Standards for Asbestos (40CFR Part 61 Subpart M) available at <http://www.epa.gov/asbestos/pubs/40cfr61subpartm.pdf>.

For projects that include a demolition as part of the construction phase, the District recommends the following be required:

*Prior to demolition of existing structures, an asbestos evaluation must be completed in accordance with the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations. Section 61.145 requires written notification of demolition operations. Asbestos NESHAP Demolition/Renovation Notification Form can be downloaded at <http://www.arb.ca.gov/enf/asbestosform.pdf>. This notification should be typewritten and postmarked or delivered no later than ten (10) days prior to the beginning of the asbestos demolition or removal activity. Please submit the original form to USEPA and a copy each to California Air Resources Board (CARB) and the District at the addresses below:*

U.S. EPA	CARB, Compliance Division	FRAQMD
Attn: Asbestos NESHAP Program	Attn: Asbestos NESHAP Program	Attn: Compliance Division
75 Hawthorne Street	P.O. Box 2815	1007 Live Oak Blvd. Suite B-3
San Francisco, CA 94105	Sacramento, CA 95814	Yuba City, CA 95991

#### Naturally Occurring Asbestos



Naturally occurring asbestos (NOA) is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present. NOA was identified as a TAC by the ARB in 1986. The ARB has adopted two ATCMs for NOA, which were adopted by the District in Rule 11.1. A lead agency should discuss whether a proposed project would be located in an area likely to contain NOA. If a project would not involve earth-disturbing construction activity in one of these areas or would not locate receptors in one of these areas then it can be assumed that the project would not have the potential to expose people to airborne asbestos particles. If a project would be located in an area moderately likely to contain NOA, then the impact shall be considered potentially significant.

## **Diesel Particulate Matter**

In September 2000, ARB adopted the Diesel Risk Reduction Plan, which recommends many control measures to reduce the risks associated with diesel PM and achieve a goal of 75% PM reduction by 2010 and 85% by 2020. The key elements of the Plan are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, to lower the sulfur content of diesel fuel, and implement advanced technology emission control devices on diesel engines.

Construction activity can result in emissions of particulate matter from the diesel exhaust (diesel PM) of construction equipment. The following are mitigation measures that can be used to reduce the impact to sensitive receptors from off-road diesel equipment:

- Install diesel particulate filters or implement other ARB-verified diesel emission control strategies on all construction equipment to further reduce diesel PM emissions beyond the 45% reduction required by the District's Best Available Mitigation Measures for Construction Phase;
- Use equipment during times when receptors are not present (e.g., when school is not in session or during non-school hours; or when office buildings are unoccupied);
- Establish staging areas for the construction equipment that are as distant as possible from off-site receptors;
- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible;
- Use haul trucks with on-road engines instead of off-road engines even for on-site hauling;
- Equip nearby buildings with High Efficiency Particle Arresting (HEPA) filter systems at all mechanical air intake points to the building to reduce the levels of diesel PM that enter the buildings; and/or
- Temporarily relocate receptors during construction activity.

Lead agencies should consider the applicability and feasibility of each measure on a project by project basis. The District also encourages lead agencies to develop additional measures.

Diesel PM can also be present near busy roadways, and areas frequented by heavy-duty diesel trucks, such as distribution centers. The District recommends that Lead Agencies use the screening table provided by in the ARB's Air Quality and Land Use Handbook available at <http://www.arb.ca.gov/ch/landuse.htm>. The District has not established a threshold of significance to evaluate the health risk resulting from projects that would locate sensitive receptors near

existing non-permitted sources of TACs. Lead agencies shall consider the following parameters when evaluating the impact associated with the development of sensitive receptors near land uses that include non-permitted sources of TACs:

- Risk factors of the TACs generated by the land use;
- Intensity of TAC-generating activity (e.g., number of diesel trucks);
- Predominant wind direction relative to the TAC source and affected receptors; and
- Rate at which the TACs generated by the source drop off over distance, if available.

## 7. Odors

The evaluation of potential odor impacts pertains directly to the following questions regarding air quality impacts from the Environmental Checklist Form (Appendix G) of the State CEQA Guidelines:

- III.e. Would the project create objectionable odors affecting a substantial number of people?

Lead agencies should consider the impacts from two different situations:

1. The proposed project would locate receptors near an existing source of odor.
2. The proposed project would locate a source of odor near existing receptors.

The District has prepared a screening table for Lead Agencies use in determining whether an impact may occur. If the project is within the distances listed in Table 7-1, the Lead Agency should consult with the District.

Sources of odor are subject to the Prohibited Discharges regulations in HSC 41700. However, agricultural operations and some composting operations are exempt from these regulations. The agricultural industry is prevalent throughout Yuba and Sutter Counties, and as such the District recommends Lead Agencies consider the potential odor impacts of agricultural operations when locating a residential neighborhood, or other sensitive receptor, near existing agricultural areas.

Table 7-1: Recommended Odor Screening Distances

Land Use/Type of Operations	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	5 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Feed lot/Dairy	1 mile
Green Waste & Recycling Operations	2 miles
Metal Smelting Plants	1 mile

Note: Odor screening distances should not be used as absolute threshold of significance for an odor significance determination. Depending on topography, meteorology, and other factors, impacts may occur at distances greater than on the screening table. If the Lead Agency has any questions, please contact the District.

## 8. Greenhouse Gases and Climate Change

The Secretary for Natural Resources adopted amendments to the CEQA Guidelines addressing greenhouse gas emissions in December, 2009. The amendments become effective March 18, 2010. The Natural Resources Agency was directed to adopt amendments by Senate Bill 97. The amendments are available at <http://ceres.ca.gov/ceqa/guidelines/>.

The amendments add the following impacts to the environmental checklist form Appendix G in the CEQA Guidelines:

### VII. GREENHOUSE GAS EMISSIONS—

Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Air districts have traditionally provided guidance to local lead agencies on evaluating and addressing air pollution impacts from projects subject to CEQA. Recognizing the need for a common platform of information and tools to support decision makers as they establish policies and programs for GHG and CEQA, the California Air Pollution Control Officers Association has prepared a white paper reviewing policy choices, analytical tools, and mitigation strategies. This white paper, entitled “CEQA and Climate Change” is available at <http://www.capcoa.org/>. The District recommends the use of this white paper by local lead agencies.

Other available resources are the California Natural Resources Agency’s Climate Change Portal webpage located at: <http://www.climatechange.ca.gov/>. This webpage includes general information on climate change, links to California climate change agencies, legislation, and upcoming events.

The website of the Office of the Attorney General has many resources for local agencies evaluating GHG impacts through the CEQA process, including comment letters submitted by the Attorney General’s Office, the impacts of climate change in California, and mitigation measures available to reduce GHG emissions. The website is available at: <http://ag.ca.gov/globalwarming/index.php>.

CoolCalifornia.org website is a partnership between government agencies, universities, and non-governmental organizations including the California Air Resources Board, Lawrence Berkeley National Laboratory, Berkeley Institute of the Environment, California Energy Commission, Next 10, and the California Public Utilities Commission. The site provides a “Local Government Toolkit” that provides guidance and lists resources to help local governments reduce GHG emissions and save money. The website is located at: <http://www.coolcalifornia.org/local-government>.

The District recommends that local agencies use these resources when developing GHG evaluations through the CEQA process. The District has not established Thresholds of Significance for GHG.

## 9. Permitted Sources

A stationary source consists of a single emission source with an identified emission point, such as a stack, at a facility. Facilities can have multiple emission point sources located on-site and sometimes the facility as a whole is referred to as a “stationary source.” Table 9-1 lists common facilities that require stationary permits to operate. The District is responsible for issuing permits to stationary-source facilities to reduce air pollution and to attain (or maintain) the AAQS. Permitted stationary-source facilities are required to implement Best Available Control Technology (BACT), which may include the installation of emissions control equipment or implementation of administrative practices that would result in the lowest achievable emission rate. Stationary-source facilities may also be required to offset their emissions of criteria air pollutants in order to be permitted. This may entail shutting down or augmenting another stationary source at the same facility. Facilities also may purchase an emissions reduction credit to offset its emissions.

If a stationary source is subject to stationary permitting requirements (either District-level permitting requirements of Rule 10.1 or the federal New Source Review program) and, in combination with any mobile and area sources associated with the same project, its daily emissions of ROG and NO<sub>x</sub> are below the District’s CEQA thresholds of significance for operational emissions, it is considered to have a less-than-significant impact with respect to ozone precursors. A stationary source subject to permitting that emits levels of ROG or NO<sub>x</sub> that exceed the District’s CEQA thresholds of significance for operational emissions, but complies with the District’s BACT and emissions offset requirements is also considered to have a less-than-significant impact. Stationary sources with emissions low enough to be exempt from the District’s permitting program, including the BACT and offset requirements, would not be considered to have a significant direct air quality impact.

The District’s permitting requirements are applicable to criteria air pollutant emissions from stationary sources. It should be noted that other potential air quality impacts of a stationary source would still need to be analyzed (e.g., air toxics, odors). Guidance for analyzing other types of potential impacts of operational emissions to air quality is provided in Chapter 6 Toxic Air Contaminants, Chapter 7 Odors, and Chapter 8 Greenhouse Gases and Climate Change. A project that includes a facility or equipment requiring a District permit to operate should apply for an authority to construct with the District prior to issuance of a building permit.

Table 9-1: Sources Likely to Require an Air Quality Permit

Gasoline retail, bulk stations, and terminals	Dry cleaners using volatile organic compounds	Electric generation or co-generation plants
Facilities with electric or steam generators or boilers	Wood furniture shops applying or stripping coatings	Cabinet shops applying coatings
Wood pulp operations	Cotton gins	Metal plating shops
Micro-brewery/winery	Leather tanning shops	Solid waste landfills
Rice or bean cleaning and drying operations and nut processing facilities	Wood sawing, molding, hogging, pressing, treating operations	Fruit or vegetable dehydration, juicing, or concentrating operations
Paint manufacturing facilities and auto body paint shops	Solvent degreasing operations	Hospitals with emergency generators or boilers
Medical Facilities using ethylene oxide for sterilization	Large printing operations and graphic arts operations	Communication industry emergency generators
Chemical manufacturing or repacking facilities	Plastic parts/products manufacturing	Any facility using air emission control equipment
Asphalt, concrete, rock, or gravel manufacturing/processing	Facility with a fuel burning engine	Incinerators, including crematoriums

## **10. District Rules Applicable to ISR**

The District's Board of Directors has adopted rules that are applicable to indirect sources. These rules are made a part of the CEQA Guidelines in order to assist lead agencies and project applicants. Compliance with District rules and regulations is not considered a mitigation measure.

### **Rule 7.10 Indirect Source Fee**

Rule 7.10 applies to all new construction of residential, commercial, and industrial structures. The Rule applies in all locations within the District. While most counties/cities have entered into agreements with the District to assess the fee, it is the responsibility of the project applicant to ensure the fee is paid. A copy of Rule 7.10 is available upon request from the District, or on the website [www.fraqmd.org](http://www.fraqmd.org).

### **3.15 Architectural Coatings**

Rule 3.15 is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use within the District, as well as any person who applies or solicits the application of any architectural coating within the District. This rule limits the volatile organic compounds (VOC) in architectural coatings. A copy of Rule 3.15 is available upon request from the District, or on the website [www.fraqmd.org](http://www.fraqmd.org).

### **3.17 Wood Heating Devices**

Rule 3.17 requires that all newly installed wood heating devices meet emission standards. The rule applies to wood burning stoves and fireplaces. A copy of Rule 3.17 is available upon request from the District, or on the website [www.fraqmd.org](http://www.fraqmd.org).

## 11. NEPA and Conformity Thresholds

### General Conformity Rule (40 CFR Parts 51 and 93)

The General Conformity Rule was promulgated by EPA in 1993 and includes two parts: Transportation Conformity Regulations and General Conformity Regulations. The purpose of the General Conformity Rule is to:

- Ensure that Federal activities do not interfere with the budgets in the state implementation plans (SIPs);
- Ensure that actions do not cause or contribute to new violations of the NAAQS;
- Ensure the attainment and maintenance of the NAAQS.

Pursuant to the Federal Clean Air Act, transportation and non-transportation infrastructure projects in Federal Nonattainment Areas that are supported by Federal funding and not subject to special exemptions would be required to comply with District Rule 10.4 General Conformity and District Rule 10.5 Transportation Conformity. The current nonattainment areas in the District are:

#### 8-hour Ozone NAAQS-

- South Sutter County (as defined in 40CFR Section 81.305)
- Elevations exceeding 2,000 feet in the Sutter Butte Mountain Range

#### 2006 PM<sub>2.5</sub> NAAQS-

- All of Sutter County
- Majority of Yuba County

Transportation Conformity Regulations (58 FR 62188), which apply to highways and mass transit, establish criteria and procedures for determining whether transportation plans, programs, and projects funded under title 23 U.S.C. or the Federal Transit Act conform with the SIP. The General Conformity Regulations (58 FR 63214) apply to all other Federal actions.

The Conformity Rule applies to Federal actions one year after the effective date of designation of a National NAAQS Nonattainment Area. The District has been designated as a Nonattainment Area for the 2006 PM<sub>2.5</sub> NAAQS. The designations became effective December 14, 2009. Therefore, Federal actions that have not yet been approved by December 14, 2010, are required to comply with the Transportation Conformity Rule. The proposed Nonattainment Area includes all of Sutter County and most of Yuba County. For information on the PM<sub>2.5</sub> Designations, please visit: <http://www.epa.gov/pmdesignations/2006standards/index.htm>.

For more information on General and Transportation Conformity, please visit: <http://www.epa.gov/oar/genconform/background.htm>.



## **Relationship to NEPA**

Some projects subject to CEQA may also require compliance under federal environmental law, namely the National Environmental Policy Act (NEPA). In such cases, a joint NEPA-CEQA analysis is appropriate. Under certain circumstances, the CEQA Guidelines allow public agencies to use a NEPA document rather than prepare an EIR or Negative Declaration. The District's Indirect Source Review Guidelines provide guidance for assessing air quality impacts and preparing environmental documents under CEQA, but can also be used to prepare a NEPA or joint CEQA-NEPA analysis.

## 12. Program Level Analysis - General/Area Plans

General and area plans present unique challenges for assessing impacts. These plans often contain development strategies for 20-year, or longer, time horizons. They also provide for a wide range of potential land uses and densities that accommodate all types of development. Within this document, the term *general and area plan* refers broadly to discretionary planning activities which may include, but are not limited to the following: general plan amendments, redevelopment plans, specific plans, area plans, community plans, and annexations of lands and service areas.

California law requires all cities and counties to prepare comprehensive general plans addressing future development and conservation priorities. State law prescribes numerous issues that must be addressed within mandatory chapters, or elements. Required elements include land use, circulation, conservation, open space, housing, noise, and safety. Jurisdictions must address all issues stipulated within state law, but are free to reorganize the content of elements and to include optional elements that address local and regional priorities that relate to the jurisdiction's future planning. Although not required by state law, the District prefers that local jurisdictions include an optional air quality element to highlight the significance of air quality problems and the jurisdiction's commitment to help solve regional air quality issues. Lead agencies may refer to the California Air Pollution Control Officers Association's (CAPCOA's) Model Policies for Greenhouse Gases in General Plans available at <http://www.capcoa.org/> for additional guidance on addressing greenhouse gases in the context of general and area plans.

General plan updates and large specific plans nearly always require the lead agency to prepare an Environmental Impact Report (EIR). Due to the District's nonattainment status and the cumulative impacts of growth on air quality, these plans almost always have significant, unavoidable adverse air quality impacts. The California Environmental Quality Act (CEQA) requires the lead agency to evaluate individual as well as cumulative impacts of general and area plans, and all feasible mitigation measures must be incorporated within the proposed plan to reduce significant air quality impacts.

The District recommends that CEQA analyses of the potential air quality impacts of general and area plans include discussion of the following:

- a) The proposed plan's consistency with the District's Air Quality Plans (Section 2.5) and the Sacramento Area Council of Governments' (SACOG's) Metropolitan Transportation Plan, which includes growth principles from the Preferred Blueprint Scenario.
- b) The proposed plan's construction-generated criteria air pollutant and precursor emissions;
- c) The proposed plan's operational criteria air pollutant and precursor emissions;
- d) The proposed plan's Toxic Air Contaminant (TAC) emissions;
- e) Potential odor exposure related to the proposed plan;
- f) The proposed plan's greenhouse gas (GHG) emissions;
- g) A significance determination for each of items (a) through (f) above, without mitigation;

- h) A discussion of feasible mitigation necessary for each of items (a) through (f) above to reduce impacts; and
- i) A discussion regarding whether the proposed mitigation would be sufficient to reduce impacts to a less-than-significant level, or if the impact would remain significant and unavoidable.

Other Sources of Assistance with addressing GHG in General Plans:

Office of the Attorney General's website contains information on CEQA, Global Warming, and General Plans located at: <http://ag.ca.gov/globalwarming/ceqa/generalplans.php>.

CoolCalifornia.org website is a partnership between government agencies, universities, and non-governmental organizations including the California Air Resources Board, Lawrence Berkeley National Laboratory, Berkeley Institute of the Environment, California Energy Commission, Next 10, and the California Public Utilities Commission. The site provides a "Local Government Toolkit" that provides guidance and lists resources to help local governments reduce GHG emissions and save money. The website is located at: <http://www.coolcalifornia.org/local-government>.

## 13. Mitigation Measures

### Standard Mitigation For All Projects

The District requires standard mitigation measures for all projects within the District. These measures are applicable to construction and operational phases of the project. The standard mitigation measures include:

- Submittal of a Fugitive Dust Control Plan. Must be received prior to beginning construction work on the project.
- Payment of Indirect Source Fee. Must be received prior to issuance of a building permit. Several local agencies collect the Fee along with other development fees. It is the responsibility of the project applicant to verify the Indirect Source Fee has been paid.
- Standard construction mitigation measures. Please see Chapter 4 for more information.

### Best Available Mitigation Measures

The District also maintains a list of additional mitigation measures that reduce emissions from construction and operational phases of a project. These measures can be incorporated into a MND or EIR to reduce the impact of the project to air quality.

- Best Available Mitigation Measures for Construction Phase, located in Chapter 4.
- Best Available Mitigation Measures for Operational Phase, Appendix C of this document.

The District is also available to work with lead agencies and project applicants on additional mitigation measures. One such example is the Voluntary Off-Site Mitigation Program.

### Off-Site Mitigation Program

The Voluntary Off-Site Mitigation Program allows projects that are close to the Thresholds of Significance, but unable to mitigate below after applying all feasible on-site mitigation, to contribute to the District's Mitigation fund. The District will use the funding to offset emissions, for example through a Carl Moyer-type Program. The District will assess a 10% administrative fee for projects using the Off-Site Mitigation Program. For more information on the Program, or to discuss the feasibility of certain projects to implement this mitigation measure, the project applicant should contact the District's planning staff directly. Approval in the Off-Site Mitigation Program must be given prior to incorporating the mitigation measure in a MND or EIR.

## Appendix A: National and California Ambient Air Quality Standards

# Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> )	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	No Separate State Standard		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	15.0 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—		
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )		0.100 ppm (see footnote 8)	None	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m <sup>3</sup> )	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (365 µg/m <sup>3</sup> )	—	
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )		—	—	
Lead <sup>9</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup>		
	Rolling 3-Month Average <sup>10</sup>	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		<b>No  Federal  Standards</b>		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>9</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (02/16/10)

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.
8. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).
9. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
10. National lead standard, rolling 3-month average: final rule signed October 15, 2008.

## Appendix B: Online Resources and Publications for Land Use Planners

### California Air Pollution Control Officers Association Publications ([www.capcoa.org](http://www.capcoa.org))

- Health Risk Assessments for Land Use Projects  
[http://www.capcoa.org/rokdownloads/HRA/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/rokdownloads/HRA/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf)
- CEQA and Climate Change  
<http://www.capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf>
- Model Policies for Greenhouse Gases in General Plans  
<http://www.capcoa.org/modelpolicies/CAPCOA%20Model%20Policies%20for%20Greenhouse%20Gases%20in%20General%20Plans%20-%20June%202009.pdf>

### California Air Resources Board ([www.arb.ca.gov](http://www.arb.ca.gov))

- Air Quality and Land Use Handbook <http://www.arb.ca.gov/ch/landuse.htm>
- Air Toxics Program <http://www.arb.ca.gov/toxics/toxics.htm>

### California Natural Resources Agency

- <http://www.climatechange.ca.gov/>. This webpage includes general information on climate change, links to California climate change agencies, legislation, and upcoming events.

### Office of the Attorney General

- The website of the Office of the Attorney General has many resources for local agencies evaluating GHG impacts through the CEQA process, including comment letters submitted by the Attorney General's Office, the impacts of climate change in California, and mitigation measures available to reduce GHG emissions. The website is available at: <http://ag.ca.gov/globalwarming/index.php>.

### CoolCalifornia.org

- CoolCalifornia.org website is a partnership between government agencies, universities, and non-governmental organizations. The site provides a "Local Government Toolkit" that provides guidance and lists resources to help local governments reduce GHG emissions and save money. The website is located at: <http://www.coolcalifornia.org/local-government>.



## Appendix C: Best Available Mitigation Measures for Operation Phase

#	Description	Development Type R=Residential C=Commercial/Industrial M=Mixed	Point Value (Maximum)	Comments
<b>Bicycle/Pedestrian/Transit</b>				
1	Non-residential projects provide bicycle lockers and/or racks	C	0.5	
2	Provide an additional 20 percent of required Class I and Class II bicycle parking facilities	C	0.5	
3	Non-residential projects provide personal showers and lockers	C	0.5	
4	Bicycle storage (Class I) at apartment complexes or condos without garages	R	0.5	
5	Entire project is located within 1/2 mile of an existing Class I or Class II bike lane and provides a comparable bikeway connection to the existing infrastructure	R, C, M	1.0	Large Projects: All facilities must be in place before 20% of the occupancy permits are granted. Small Projects: All facilities must be in place within 1-year of start of business.
6	The project provides for pedestrian facilities and improvements such as overpasses and wider sidewalks	R, C, M	1.0	Large Projects: All facilities must be in place before 20% of the occupancy permits are granted. Small Projects: All facilities must be in place within 1-year of start of business.
7	Bus service provides headways of 15 minutes or less (1.0) or 30 minutes or less (0.5) for stops within 1/4 mile; project provides essential bus stop improvements (i.e., shelters, route information, benches, and lighting).	C	1.0, 0.5	Maximum combined credit for measure #7 and #64 is 2.0

8	Provide a display case or kiosk displaying transportation information in a prominent area accessible to employees or residents	R, C, M	<b>0.5</b>	In coordination with Yuba-Sutter Transit
9	High density residential, mixed, or retail/commercial uses within 1/4 mile of <b>existing</b> transit, linking with activity centers and other planned infrastructure	R, C, M	<b>2.0 for light rail, 1.0 for bus only</b>	Planned infrastructure must be in General Plan, Specific Plan, or Community Plan. Maximum credit is 2.0 (light rail and bus points cannot be combined).
10	High density residential, mixed, or retail/commercial uses within 1/4 mile of <b>planned</b> transit, linking with activity centers and other planned infrastructure	R, C, M	<b>1.0 for light rail, 0.5 for bus only</b>	Planned transit must be in Transit Masterplan; planned infrastructure must be in General Plan, Specific Plan, or Community Plan. Maximum credit is 1.0 (light rail and bus points cannot be combined). Cannot get points for both this measure and measure #9.
<b>Parking</b>				
11	Employee and/or customer paid parking system (no validations)	C	<b>3.0</b>	Must be coordinated with Yuba-Sutter TMA.
12	Provide minimum amount of parking required	C, M	<b>0.5</b>	May require city/county variance
13	Provide parking reduction: Office 25%, Medical office 8%, Commercial 5%, Industrial 10%, Additional 10-20% if located along transit station (special review of parking is required)	C, M	<b>2.5</b>	May require city/county variance or revision to ordinance
14	Provide-grass paving or reflective surface for unshaded parking lot areas, driveways, or fire lanes that reduce standard black asphalt paving by 10% or more in consultation with FRAQMD	R, C, M	<b>1.0, 0.5</b>	Portland concrete is the preferred paving material; "Chip Seal" methodology is also preferred; Green Pavement: <a href="http://www.invisiblestructures.com/GP2/grasspave.htm">http://www.invisiblestructures.com/GP2/grasspave.htm</a> . 1.0 for Portland concrete or Chip Seal; other approved reflective or green surfaces 0.5
15	Increase parking lot shading by 20% over code utilizing low pollution-emitting trees	R, C, M	<b>1.0</b>	In consultation with FRAQMD (Low Ozone Forming Potential Shrubs and Trees)
16	Provide electric vehicle charging facilities	R, C, M	<b>1.0</b>	Details of facilities' provision must be coordinated with City or County and FRAQMD. Incentive funding may be available for City/County projects from the FRAQMD.
17	Provide preferential parking for carpool/vanpools	C	<b>0.5</b>	Including signage

18	Covered carpool/vanpool spaces near the entrance to the building(s)	C	<b>0.5</b>	Including signage
19	Loading and unloading facilities for transit and carpool/vanpool users	C	<b>0.5</b>	Including signage
20	Project is located within one mile of a park and ride lot operated by a transportation agency	R	<b>0.5</b>	Fosters public transit use for the workplace commute.
21	Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances	C	<b>0.5</b>	Emphasis on safety and convenience
22	Adopt a Vehicle Idling Policy requiring all vehicles under company control to adhere to a 5 minute idling policy. Also, enforce an onsite idling policy of 5 minutes or less including company owned, contract, vendor, and delivery vehicles.	C	<b>0.5</b>	FRAQMD approved written company policy, vendor contractual language, onsite signage and enforcement procedures required.
<b>Commercial Building Design</b>				
23	Implement PG&E "Savings By Design" assistance and incentive programs that encourage high performance building design and construction.	C, M	<b>tbd</b>	Cannot use points for both this measure and #48 (or other overlapping measures) unless they are uniquely different as determined by the FRAQMD; Point values to be determined
24	Setback distance is minimized between development and <b>existing</b> transit, bicycle, or pedestrian corridor	C, M	<b>1.0</b>	
25	Setback distance is minimized between development and <b>planned</b> transit, bicycle, or pedestrian corridor	C, M	<b>0.5</b>	Planned transit, bicycle or pedestrian corridor must be in MTP, RT Masterplan, General Plan, or Community Plan. Cannot get points for both this measure and measure #24.
<b>Residential Development</b>				
26	Average residential density 7 d.u. per acre or greater	R	<b>1.5, 3.0, 4.5</b>	1.5 points for 7-14 du/acre, 3.0 points for 15-29 du/acre, 4.5 points for 30+ du/acre

27	Multiple and direct street routing (grid style)	R, C, M	2.5	Full credit for internal connectivity factor (CF) >= 0.70, and average 1/4 mile or less between external connections. [CF= # of intersections / (# of cul-de-sacs + intersections)]
28	Granny Flats - Have ancillary "granny units" (requires Special Development Permit but no Accessory Structure Use Permit)	R	1.0	
<b>Mixed Use</b>				
29	Development of projects predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site. A "single site" may include contiguous properties.	M	3.0	Cannot get points for both this measure and any "Convenience Services" measures. Also mutually exclusive with #30.
30	Partial Mixed Use Credit: Have at least 3 of the following on site and/or within 1/4 mile: Residential Development, Retail Development, Personal Services, Open Space, Office	R, C, M	1.0	Cannot get points for both this measure and any "Convenience Services" measures. Also mutually exclusive with #29.
31	Neighborhood serving as focal point with parks, school and civic uses within 1/4 mile	R, M	0.5	Does not have to be a mixed use project to apply this measure.
32	Separate, safe, and convenient bicycle and pedestrian paths connecting residential, commercial, and office uses	R, C, M	2.0	Does not have to be a mixed use project to apply this measure.
33	The project provides a development pattern that eliminates physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that impede-bicycle or pedestrian circulation	R, C, M	1.0	Does not have to be a mixed use project to apply this measure.
<b>Convenience Services</b>				

34	Day care facilities are provided on site or within 1/4 mile of site	R, C, M	<b>1.0 Onsite; 0.5 Offsite</b>	
35	Restaurant or cafeteria on site or within 1/4 mile of site	R, C, M	<b>0.2</b>	
36	Bank or ATM on site or within 1/4 mile of site	R, C, M	<b>0.2</b>	
37	Dry cleaners on site or within 1/4 mile of site	R, C, M	<b>0.2</b>	
38	Post office on site or within 1/4 mile of site	R, C, M	<b>0.2</b>	
39	Entertainment (movie/video) on site or within 1/4 mile of site	R, C, M	<b>0.2</b>	
40	Recreation facility/fitness center on site or within 1/4 mile of site	R, C, M	<b>0.2</b>	
<b>Building Component Measures</b>				
41	Install lowest emitting commercially available fireplace	R	<b>1.0</b>	
42	Install lowest emitting commercially available furnace	R, C, M	<b>0.5</b>	
43	Install ozone destruction catalyst on all air conditioning systems	R, C, M	<b>2.5</b>	In consultation with FRAQMD
44	Install EPA Energy Star approved roofing materials or install "Green Roof" Technology	C	<b>0.5</b>	Note: #49 and this measure may overlap; if both used then tbd. Energy Star Info: <a href="http://www.energystar.gov/">http://www.energystar.gov/</a>
45	Provide fiber optic wiring and connections	R, C, M	<b>0.5</b>	
46	Provide-T1 wiring and connections	R, C, M	<b>0.5</b>	
47	Install roof photovoltaic energy systems	R	<b>0.5</b>	2.5 if offered as a standard feature on all homes
48	Innovative Energy-Efficient Technologies or measures exceeding Title 24 energy efficiency standards by 10% or more	R, C, M	<b>tbd</b>	Cannot use points for both this measure and #23, or other overlapping measures, unless they are uniquely different as determined by FRAQMD; Point values to be determined
49	Comply with EPA/DOE Energy Star Home energy standards	R	<b>1.0</b>	Cannot get points for both this measure and the above measure.

50	Orient 75 or more percent of homes and/or buildings to face either north or south (within 30 degrees of N/S), and include shrub/tree shading masterplan	R	0.5	Orient the placement of trees and shrubs near the building to shade the building, cool the soil and area around the building, and reduce direct solar radiation from entering the building through windows and from heating external building structures.
<b>TDM and Misc. Measures</b>				
51	Include permanent TMA membership and funding requirement. Funding to be provided by Community Facilities District or County Service Area or other non-revocable funding mechanism.	R, C, M	2.5	Join Yuba-Sutter Transportation Management Association. Contact Mr. Bill Fairbairn, Phone: (530) 669-1446, Email: bill@yolotma.org
52	Carpool Matching Assistance	C	0.2	Must be coordinated with TMA.
53	Provide financial incentives to carpoolers for vehicle tune-up or maintenance	R, C, M	0.2	Must be coordinated with TMA.
54	Provide Flextime for non-SOV (single occupancy vehicle) commuters	C	0.2	Must be coordinated with TMA.
55	Provide Guaranteed Ride Home	C	0.2	Must be coordinated with TMA.
56	Implement compressed work week schedules	C	0.2	Must be coordinated with TMA.
57	Provide on-site Employee Transportation Coordinator to work with TMA	R, C, M	0.2	Must be coordinated with TMA.
58	Contract only with commercial landscapers who operate with equipment that complies with the most recent California Air Resources Board certification standards, or standards adopted no more than three years prior to date of use.	C	2.0	
59	Make physical development consistent with requirements for neighborhood electric vehicles	R	1.5	
60	Install videoconferencing system	C, M	0.5	
61	Promote-teleworking and implement an employee telework policy	C, M	1.0	
62	Provide free-access telework terminals in multi-family projects	R	1.0	At least one terminal per 100 apartments

63	In consultation with FRAQMD: Implement Clean Air Business Practices. Adopted company policy/procedure or contractual documentation required	C	<b>tbd</b>	Examples: Using electric or low-emission light-duty fleet vehicles, contracting with alternative-fuel waste hauling companies, contracting with carrier, delivery, security, or other services utilizing electric, low-emission, alternative fuel, or utilizing heavy-duty vehicles that are CARB certified to optional low-emission standards for NOx.
64	Provide electric shuttle to transit stops	R, C, M	<b>2.0</b>	Maximum combined credit for measure #7 and #64 is 2.0
65	Provide-a complimentary cordless electric lawnmower to each residential buyer	R	<b>2.0</b>	
66	Provide an opportunity to receive either a complimentary bicycle or electric bicycle retrofit kit to each residential buyer	R	<b>0.5</b>	
67	Transit pass subsidy and/or commute alternative allowance	C	<b>1.5</b>	Point value based on 100% subsidy.
<b>Heavy-Duty Diesel Vehicle Fleet (&gt;14,000 lbs gross vehicle weight)</b>				
68	Repower/Retrofit heavy-duty diesel fleet with cleaner diesel engine technology and/or diesel particulate filter after-treatment technology	C, M	<b>tbd</b>	Local and State incentive funds may be available. Calculate emission reductions based on specific technology used.
69	Replace diesel fleet with alternative fuel engine technology and infrastructure	C, M	<b>tbd</b>	Local and State incentive funds may be available Calculate emission reductions based on specific technology used.
70	Replace auxiliary power units with cleaner engine technology, alternative fuels, or require electric connection while at loading dock	C, M	<b>tbd</b>	Local and State incentive funds may be available Calculate emission reductions based on specific technology used.
<b>Mitigation Funding</b>				
96	Contribute funding to the FRAQMD Pedestrian/Bicycle Infrastructure Program	R, C, M	<b>tbd</b>	Planned infrastructure must be in the General, Specific, or Community Plan or Master Bike Plan or approved by FRAQMD and applicable county/city planning staff.



FRAQMD

Attachment D: Best Available Mitigation Measures-Operational Phase

97	Buy down diesel fleet emissions by implementing, or providing funds to FRAQMD to implement, an offsite Carl Moyer or Motor Vehicle Fund program (or equivalent) at a per ton cost to be determined.	C, M	<b>tbd</b>	Guidelines to be developed and approved by the FRAQMD Board of Directors.
98	Provide funding and/or resources for a Park and Ride Lot	R, C, M	<b>0.5</b>	In coordination with YSTA, YSTMA, and FRAQMD
<b>Innovative Strategies</b>				
99	Other proposed strategies, in consultation with City or County Planning and FRAQMD	R, C, M	<b>tbd</b>	

Notes:

- 1
- 2
- 3
- 4

tbd = to be determined by FRAQMD staff based on the specific criteria and emission factors associated with the measure.

YSTA = Yuba-Sutter Transit Authority

YSTMA = Yuba-Sutter Transportation Management Association

CARB = California Air Resources Board

Appendix D: Environmental Checklist Form, State CEQA Guidelines

**CEQA APPENDIX G:  
ENVIRONMENTAL CHECKLIST FORM**

NOTE: The following is a sample form and may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. Project title: \_\_\_\_\_
2. Lead agency name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Contact person and phone number: \_\_\_\_\_
4. Project location: \_\_\_\_\_
5. Project sponsor's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. General plan designation: \_\_\_\_\_ 7. Zoning: \_\_\_\_\_
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Surrounding land uses and setting: Briefly describe the project's surroundings:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology /Soils                     |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use / Planning      | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation/Traffic   | <input type="checkbox"/> Utilities / Service Systems        | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## EVALUATION OF ENVIRONMENTAL IMPACTS:

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

- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance

**SAMPLE QUESTION**

Issues:

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

**II. AGRICULTURE AND FORESTRY RESOURCES.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>III. AIR QUALITY.</b> 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 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 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 type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>IV. BIOLOGICAL RESOURCES:</u></b>				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<u>V. CULTURAL RESOURCES.</u> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>VI. GEOLOGY AND SOILS.</u> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**VII. GREENHOUSE GAS EMISSIONS.**

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**VIII. HAZARDS AND HAZARDOUS**

**MATERIALS.** Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IX. HYDROLOGY AND WATER QUALITY.**

Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>X. LAND USE AND PLANNING.</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XI. MINERAL RESOURCES. Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XII. NOISE -- Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<u>XIII. POPULATION AND HOUSING.</u> Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>XIV. PUBLIC SERVICES.</u>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>XV. RECREATION.</u>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b><u>XVII. UTILITIES AND SERVICE SYSTEMS.</u></b>				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

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