

**EMISSION REDUCTIONS FROM  
NEW OR REDEVELOPMENT PROJECTS  
[NO<sub>x</sub>, VOC, AND PM2.5]**

<b>CONTROL MEASURE SUMMARY</b>			
<b>SOURCE CATEGORY:</b>	NEW OR REDEVELOPMENT PROJECTS		
<b>CONTROL METHODS:</b>	ENHANCED CEQA AIR QUALITY REVIEW AND MITIGATION THROUGH DISTRICT REGULATION		
<b>EMISSIONS (TONS/DAY):</b>			
ANNUAL AVERAGE	<b>2002</b>	<b>2014</b>	<b>2023</b>
NO <sub>x</sub> INVENTORY	N/A	13.4	12.0
NO <sub>x</sub> REDUCTION		<u>0.0</u>	<u>0.8</u>
NO <sub>x</sub> REMAINING		13.4	11.2
SUMMER PLANNING INVENTORY	<b>2002</b>	<b>2014</b>	<b>2023</b>
NO <sub>x</sub> INVENTORY	N/A	13.3	11.9
NO <sub>x</sub> REDUCTION		<u>0.0</u>	<u>0.8</u>
NO <sub>x</sub> REMAINING		13.3	11.1
ANNUAL AVERAGE	<b>2002</b>	<b>2014</b>	<b>2023</b>
VOC INVENTORY	N/A	27.5	39.8
VOC REDUCTION		<u>0.0</u>	<u>0.5</u>
VOC REMAINING		27.5	39.3
SUMMER PLANNING INVENTORY	<b>2002</b>	<b>2014</b>	<b>2023</b>
VOC INVENTORY	N/A	32.4	47.0
VOC REDUCTION		<u>0.0</u>	<u>0.6</u>
VOC REMAINING		32.4	46.4
ANNUAL AVERAGE	<b>2002</b>	<b>2014</b>	<b>2023</b>
PM2.5 INVENTORY	N/A	5.7	8.8
PM2.5 REDUCTION		<u>0.0</u>	<u>0.5</u>
PM2.5 REMAINING		5.7	8.3
<b>CONTROL COST:</b>	TO BE DETERMINED		
<b>IMPLEMENTING AGENCY:</b>	DISTRICT/LOCAL OR REGIONAL AGENCIES		

## **DESCRIPTION OF SOURCE CATEGORY**

The purpose of this control measure is to mitigate emission growth from new development and redevelopment projects. This initiative is designed to reduce emissions related to new residential, commercial, industrial and institutional development, including redevelopment, required to meet the needs of the Basin's future residents and economy. Lead agencies for projects subject to California Environmental Quality Act (CEQA) currently prepare air quality analysis as part of their environmental documents, including emissions during construction and operations. Typical emissions during construction phase include, but are not limited to: fugitive dust emissions, combustion emissions from off-road mobile sources (construction equipment) and on-road mobile sources, and coating and asphalt evaporative emissions. Operational emissions include, but are not limited to: area sources (e.g., water heater emissions), on-road mobile source emissions (worker commute trips, delivery truck trips, etc.), consumer products and other emissions sources depending on the specific type of land use. The purpose of this proposed measure is two-fold: (1) compliance with the "all feasible measures" requirement of the state law, and (2) capturing emission reduction opportunities during project development phase. In regards to "all feasible measures", the California Clean Air Act requires districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible measures (Health and Safety Codes 40913, 40914 40920.5). The term "feasible" is defined in the 14 California Code of Regulations, section 15364, as a measure "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

### **Background**

New development projects produce new sources of air pollution from new vehicle trips, use of consumer products, landscape maintenance, new stationary source processes such as fuel combustion, as well as emissions generated during construction activities. Each day millions of vehicles travel the roads in the South Coast Air Basin and the length of vehicle trips is expected to increase as outlying areas continue to be developed. In addition, older residential, commercial and industrial areas may undergo major redevelopment involving construction activities, with emissions comparable to new development projects. Redevelopment projects may also generate additional vehicular traffic compared to the projects they replace because redevelopment projects often involve increasing population density compared to the previous use. Redevelopment includes demolishing existing buildings, increasing overall floor area or building additional capacity on an existing property. For example, the conversion of an industrial warehouse to an office building could create as much emissions as constructing a new building because it would be a complete remodel.

### **Regulatory History**

California Health and Safety Code Section 40716 states that "a district may adopt and implement regulations to reduce or mitigate emissions from indirect and areawide sources of air pollution". Furthermore, a 1993 California Attorney General opinion states that "a district's regulations may require the developer of an indirect source to submit the plans to the district for

review and comment prior to the issuance of a permit for construction by a city or county. A district may also require the owner of an indirect source to adopt reasonable post-construction measures to mitigate particular indirect effects of the facility's operation. Such regulations could be enforced through an action for civil penalties..." H & S Code 40716 also states that the authority of a district to reduce or mitigate emissions from indirect and areawide sources of air pollution does not constitute an infringement on the existing authority of counties and cities to plan or control land use.

Health and Safety Code 42311(g) allows districts to adopt a schedule of fees on areawide or indirect sources which are regulated, but for which permits are not issued, to cover the costs of District programs related to this source.

San Joaquin Valley Unified Air Pollution Control District's (SJVUAPCD) Rule 9510 – Indirect Source Review, adopted on December 15, 2005, requires new development projects to submit an Air Impact Assessment application to the District prior to obtaining discretionary approval for a building permit. Developers are required to implement mitigation measures to reduce PM10 and NOx emissions or, as an alternative, may pay into a mitigation fund for SJVUAPCD sponsored emission reducing off-site projects. The rule applies to certain specified industrial, commercial, and residential projects based upon the amount of build-out upon project completion. Specifically, the rule applies to projects which include any of the following: 50 residential units; 2,000 square feet (sq. ft.) of commercial space; 25,000 sq. ft. of light industrial space; 100,000 sq. ft. of heavy industrial space; 20,000 sq. ft. of medical office space; 39,000 sq. ft. of general office space; 9,000 sq. ft. of educational space; 10,000 sq. ft. of government space; 20,000 sq. ft. of recreational space; and 9,000 sq. ft. of space not identified. It also includes transportation projects whose construction exhaust emissions will result in a total of two tons per year of NOx or PM10. The rule is designed to reduce the impact of development projects to the extent needed to allow SJVUAPCD to reach attainment of ozone and PM10 standards.

Many California air districts have adopted and implemented indirect source rules, policies, and/or the collection of mitigation fees. Examples of other air district's rules or policies are briefly summarized below:

Mendocino County Air Quality Management District (MCAQMD) requires an Authority to Construct prior to starting construction, modification, operation or use of any stationary, portable, or indirect source. It further defines in Rule 1-130 an indirect source as "a facility, building, structure or installation, or combination thereof, that indirectly results in, or is projected to result in unmitigated emissions in excess of the following: ROG – 180 lbs/day, NOx – 42 lbs/day, CO – 690 lbs/day, PM10 – 80 lbs/day." Furthermore, projects with an annual combined stationary source release of 25 tons or more of any air contaminant are subject to emissions assessment fees.

Great Basin Unified Air Pollution Control District's (APCD) New Source Review Requirements For Determining Impact On Air Quality Secondary Sources define indirect sources as a secondary source, which is any structure, building, facility, equipment, installation, operation, or aggregation thereof. General provisions include, "A person shall not initiate, modify, construct or operate any secondary source which will cause the emission of any manmade air pollutant for which there is a state or national ambient air quality standard without first obtaining a permit from the Air Pollution Control Officer." The District, through Rule 301, imposes fees on secondary sources. The fees are based on the size of the commercial unit and the number of parking spaces, or the number of residential dwelling units.

Colusa County APCD Rule 4.8 – Indirect Source Review Fee: defines indirect source as any facility, building, structure, installation, real property, road or highway which may cause mobile source emissions. The fee is based on commercial or industrial square footage or by the number of residential units.

Placer County APCD Policy Regarding Land Use Air Quality Mitigation Funds assesses emissions estimated to occur during the ozone season of May-October from a particular project; and if sufficient permanent on-site mitigation measures cannot be implemented to adequately reduce emissions, the APCD will apply a cost effectiveness factor to calculate funds required to attain offsite emission reductions.

Shasta County AQMD Rule 3:16 – Fugitive, Indirect, Or Non-Traditional Sources authorizes the AQMD to place conditions upon indirect sources to mitigate emissions to a level which will not constitute a violation of Health and Safety Code Sections 41700 and /or 41701. Resolution No. 84-2, Resolution Of The Shasta County Air Pollution Control Board Amending The Rules Of The Shasta County Air Pollution Control District, authorizes an in-lieu buy out schedule for road paving, per parcel below 1,000 feet in elevation.

## **Proposed Method of Control**

The District is obligated by law to consider all feasible control measures which would include a measure that is considered at least equivalent to the programs implemented by other air districts. District staff convened a working group made up of stakeholders from industry, local governments, and community representatives to explore approaches to reduce emissions from indirect sources.

As part of the program development process, consideration will also be given so that the program requirements would not interfere with potential third party funding opportunities. Three working group meetings were held and, based on the input received, the proposed control measure would require the District to develop a rule to establish applicability criteria for emissions or other equivalent parameters for new development and redevelopment projects. All discretionary permit applications filed with local jurisdictions pursuant to CEQA would be required to submit an Air Quality Analysis application per District methodology along with their CEQA documents prior to issuance of a building permit if the projects meet the applicability criteria. Projects meeting the established criteria would also be required to reduce their emissions by selecting a series of mitigation measures from a menu of options provided in

the rule. However, consideration will be given to any additional equivalent mitigation measures submitted by the project proponent. Mitigation measure requirements will be technically feasible and cost effective. Compliance with the rule will be achievable through the selection and implementation of mitigation measures chosen from a menu of options and without unduly restricting local or regional jurisdictions' prerogatives respecting land use approvals. During rule development, special consideration will be given to the need to assure that any rule adopted will integrate with and enhance the CEQA process nor retard project approvals in light of CEQA timelines. The District will conduct outreach and field audits to ensure rule compliance.

During the rule development process, a number of issues will be examined further, such as but not limited to:

- Rule applicability
- Menu of mitigation options
- Projects within SCAG's 2% Compass Plan
- Regional Transportation Plan Projects
- Incentives for developers to incorporate air quality mitigation measures beyond rule requirements into their projects, such as District recognition of exemplary projects
- Timely review of project application

As part of the District's streamlining of the process, the rule will include a local delegation component in which a local or regional jurisdiction may elect to implement a program comparable to the District's for reviewing applications or by adopting an ordinance equal to or more stringent than the rule. Coachella Valley Association of Government's PM10 mitigation measures in Rule 403 – Fugitive Dust are good examples of how local ordinances can be incorporated in a District rule. This delegation will include technical training and field auditing to be conducted by the District.

District staff will continue the EGM-01 working group for rule development, including stakeholders from local governments, building industry, developers, realtors, other business representatives, environmental/community members and other stakeholder representatives to carry out this initiative, resolve issues, prepare guidance, and identify solutions to implementation barriers. Written comments from stakeholders and the working group on the proposed control measure will be taken into consideration during the rulemaking process. The District will follow a two step public hearing procedure which will provide a pre-hearing to receive public comments on the basic program design prior to the adoption hearing before the District Governing Board.

## **EMISSIONS REDUCTION**

The precise emissions inventory for future new or development projects within the Basin cannot be determined at this time. For the purpose of illustrating the potential inventory, Table 2 shows the emission sources that could be affected by this measure. These emissions would be further refined during rulemaking. Based on the emission growth projected for this region, a reduction target of 1.0 tpd of NO<sub>x</sub>, 0.5 tpd of VOC, and 0.5 tpd of PM<sub>2.5</sub> is established for 2020. Due to continued fleet turnover, by 2023 the emission reduction targets for NO<sub>x</sub> will be

0.8 tpd, while the VOC and PM2.5 targets will remain at 0.5 tpd. Although the commitment appears small, this target takes into account emission reductions credited to other AQMP control measures. The reduction estimates will be re-evaluated during the rule development process. Any emission reductions achieved beyond the SIP commitment stated here will contribute to the “black-box” reduction commitment. Table 2 shows the emissions from growth in 2014 and 2023 that may be targeted.

**TABLE 2**  
**Projected Emission Inventory from New & Redevelopment Projects** <sup>(1) (2)</sup>  
 (tons/day)

	2014			2023		
	VOC	NO <sub>x</sub>	PM2.5	VOC	NO <sub>x</sub>	PM2.5
Manufacturing & Industrial <i>(fuel combustion)</i>	0.14	0.29	0.13	0.16	0.39	0.14
Service & Commercial <i>(fuel combustion)</i>	0.08	0.24	0.04	0.11	0.09	0.01
Residential* <i>(fuel combustion)</i>	0.38	1.34	0.77	0.61	1.91	1.39
Asphalt Paving* <i>(solvent evap.)</i>	0.29	nil	nil	0.47	nil	0.01
Consumer Products* <i>(solvent evap.)</i>	11.33	nil	nil	17.41	nil	nil
Architectural Coatings* <i>(solvent evap)</i>	2.97	nil	nil	5.33	nil	nil
Cooking*	0.30	nil	2.15	0.49	nil	3.47
Lawn & Garden Equipment*	4.79	0.97	0.10	7.73	1.27	0.13
Construction Equipment*	0.59	2.71	0.55	0.51	2.31	0.07
Construction & Demolition	nil	nil	0.94	nil	nil	1.50
Paved Road Dust	nil	nil	0.58	nil	nil	0.98
Light Duty Auto <i>(on-road motor)</i>	1.31	0.91	0.13	1.28	0.48	0.23
Light Duty and Light Heavy Duty Trucks <i>(on-road motor)</i>	3.19	4.09	0.13	3.73	3.72	0.59
Medium Duty & Medium Heavy Duty Trucks <i>(on-road motor)</i>	1.84	2.21	0.19	1.81	1.48	0.30
Heavy Heavy Duty Trucks <i>(on-road motor)</i>	0.25	0.63	nil	0.15	0.38	0.01
<b>TOTAL</b>	<b>27.46</b>	<b>13.39</b>	<b>5.71</b>	<b>39.79</b>	<b>12.03</b>	<b>8.83</b>

- (1) Emission inventory incorporates proposed short-term measures in the 2007 plan to avoid double counting.  
 (2) Assumes 50% of emission growth attributable to new and redevelopment projects except categories noted with an asterisk (\*), where 100% is assumed.

## **RULE COMPLIANCE**

The District will adopt a rule to implement this measure and Rule compliance will be verified via field inspection.

## **TEST METHODS**

Approved emission quantification protocols by federal, state or local agencies will be used to track and report emission reductions for SIP purposes.

## **COST EFFECTIVENESS**

Cost-effectiveness will be developed during the rulemaking process based on the mitigation measures included in the menu of options.

## **IMPLEMENTING AGENCY**

The District has the authority to implement this measure under its indirect source authority in conjunction with local lead agencies.