SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

INITIAL STUDY/ENVIRONMENTAL CHECKLIST

A. PROJECT BACKGROUND INFORMATION

1. Project Title:

2003 PM10 Plan

2. Lead Agency Name and Address

San Joaquin Valley Unified Air Pollution Control District
1999 Tuolumne Street, Suite 200
Fresno CA 93721-1638

3. Contact Person:

Plan: Mr. Dave Mitchell, Supervising Planner
(559) 230-5800

CEQA: Mr. Hector R. Guerra
(559) 230-5800

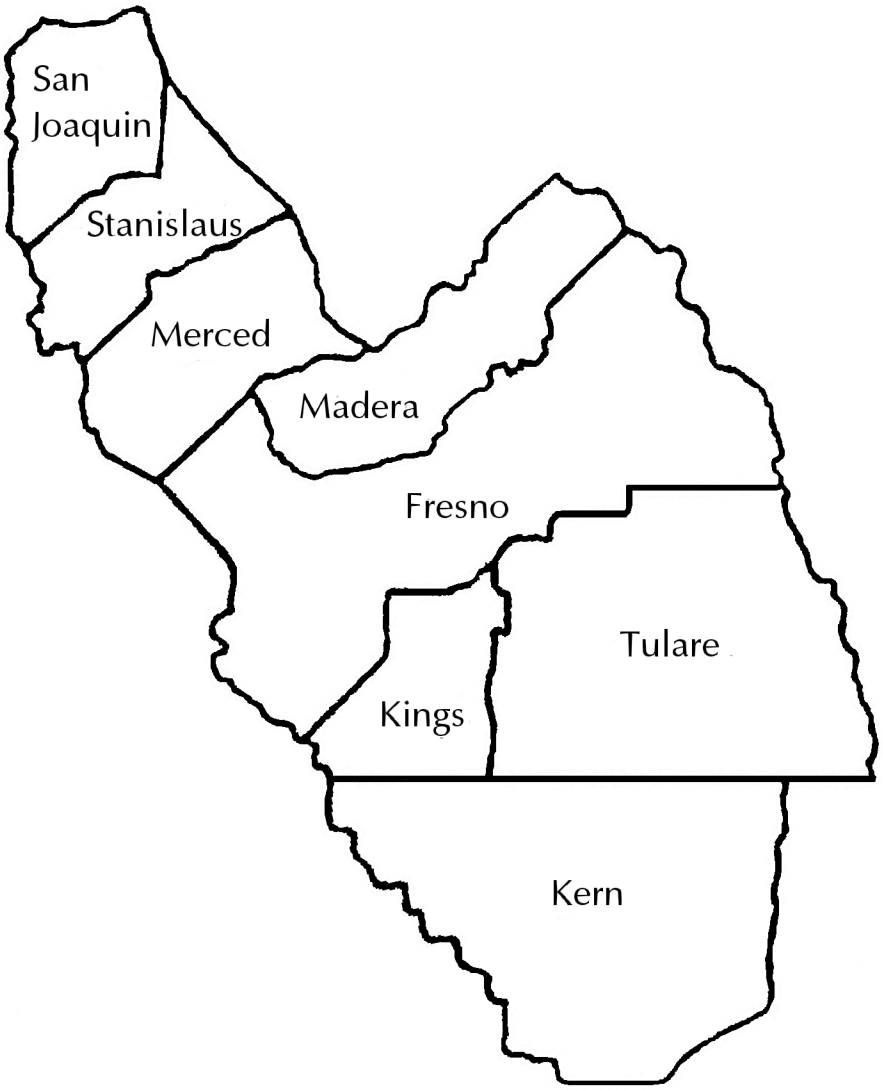
4. Project Location:

The *2003 PM10 Plan* applies to PM10 emission sources located within the boundaries of the San Joaquin Valley Unified Air Pollution Control District (see Exhibit 1, Map of District Boundaries).

5. Project Sponsor's Name and Address:

San Joaquin Valley Unified Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno CA 93726-0244

Exhibit 1
San Joaquin Valley Unified air Pollution Control District Boundaries



6. Project Description

A. Background

The San Joaquin Valley Air Pollution Control District (District) 2003 PM10 Plan (Plan) is designed to meet the requirements of the federal Clean Air Act (CAA) for areas classified as serious nonattainment of the national ambient air quality standards (NAAQS) for PM10, which is measured and expressed as the amount of particles 10 microns (µm) in diameter or less contained in a cubic meter of air ($\mu g/m^3$). The Plan contains all required components and demonstrates attainment of the federal PM10 standards at the earliest possible date. The Plan is divided into eight chapters. Supporting documents to sections of these chapters are provided as appendices.

Attainment will require substantial reductions in directly emitted PM10 pollutants and PM10 precursors. During the worst episodes that occur during the winter, secondary nitrate is the largest component of the problem followed by geologic material and carbon from wood combustion and motor vehicles. Preliminary modeling indicates that controls of oxides of nitrogen (NOx controls) are the most effective at reducing nitrate concentrations throughout the air basin. Fugitive dust controls on activities in the urban area are most effective at reducing geologic dust in the areas with the highest readings, although reductions in rural areas may be important to protect people living in proximity to large sources. Controls on residential wood burning will result in substantial reductions in carbon particles in urban areas with high concentrations of wood burning devices. The state and federal motor vehicle program and diesel fuel regulations will also significantly reduce NOx, volatile organic compounds (VOC), diesel particulate and oxides of sulfur (SOx) emissions. Although modeling indicates that VOC controls are not effective in reducing secondary PM10, existing and planned regulations on VOC sources adopted for ozone will result in some air quality benefit due to reduction in condensable PM10 emissions from these organic compounds.

The District, the state, local agencies, and the federal government have already adopted many of the controls needed to attain the PM10 standard as rules and regulations. Some of these regulations are fully implemented while others that rely on equipment/vehicle turnover take many years to make a large impact. The new control measure commitments contained in this plan include changes related to several different requirements. Some upgrades are the result of the District's BACM/BACT analysis. For example, changes to Regulation VIII were identified in the BACM analysis. Other upgrades reflect corrective actions taken to comply with prior EPA disapprovals of portions of adopted District rules. For example, Rule 4901 (Residential Wood Burning) falls under this category. The final category of changes includes controls that are proposed to achieve the PM10 standard as expeditiously as practicable. These include new control measures proposed by the state and federal government as well as District stationary source controls identified as all feasible measures required by the California Clean Air Act.

DISTRICT PM10 PLAN CHRONOLOGY

When the 1990 amendments to the CAA were initially promulgated, the District was designated nonattainment for PM10 and was classified as a "moderate" area for PM10. The District was required to adopt a PM10 SIP by November 15, 1991. The District

submitted a plan that contained reasonably available control measures (RACM) required for moderate areas, but was unable to demonstrate attainment by the moderate area deadline of December 31, 1994. This resulted in reclassification to "serious" nonattainment effective February 8, 1993.

The serious classification required the District to implement more stringent regulatory requirements as part of the SIP within 18 months after the re-classification and to demonstrate attainment of NAAQS by December 31, 2001. The District submitted a 1994 Serious Area Plan containing BACM commitments on September 13, 1994. On May 15, 1997 the District submitted a PM10 Attainment Demonstration Plan (ADP). Late in 2001, the EPA indicated that it intended to disapprove the 1997 PM10 ADP because it failed to provide an adequate BACM demonstration and a most stringent measures (MSM) demonstration. The MSM demonstration was required for an approval of a one-time, five-year extension to the attainment date. In addition, the ADP predicted attainment of the annual PM10 NAAQS by the December 31, 2001 and several monitoring sites had exceeded this standard in the previous three years.

Prior to the EPA's final disapproval, the District withdrew its 1997 ADP in order to avoid an immediate freeze on local transportation funding that would have resulted from the disapproval of a Plan. This action led the EPA to file a "Notice of Failure to Submit the 1997 PM10 Plan" and started a CAA sanction clock. If the District fails to correct this deficiency, the EPA will implement the first sanction regarding offsets on August 28, 2003. The second sanction, which is the withholding of federal transportation funds, would go into effect on February 28, 2004.

The EPA made a final finding of failure to attain the PM10 standard on July 23, 2002 (effective August 22, 2002). This finding resulted in no additional consequences because the earlier sanction clock for failure to submit the PM10 Plan would go into effect first and the same corrective action would stop both sanction clocks. The EPA must find a Plan complete within 60 days, but no later than six months after receipt. The EPA must approve, disapprove, partially approve, or conditionally approve the plan within one year of finding the Plan complete. Table 2-3 presents an abbreviated historical chronology of the District's plan submittal and actions taken.

B. Plan Description

The PM10 ADP is divided into eight chapters. These chapters are briefly summarized below:

Chapter 1 Plan Overview And Introduction

This chapter provides background information on the regulatory requirements for serious PM10 nonattainment areas and regulatory responsibilities of all agencies involved in reducing PM10. It introduces PM as a pollutant and addresses the health effects to PM exposure (including some demographic statistics) and it cites general studies that have been used to support the NAAQS. There is also a brief discussion regarding the standards that have been set for PM10 and PM2.5. The focus of this chapter is the District's Plan development chronology and the reason for preparing this PM10 Plan.

Chapter 2 San Joaquin Valley Air shed

This chapter provides background information regarding the geographical and meteorological background of the District. It discusses the District's monitoring network and the type of pollutant readings taken at the various monitoring sites, including annual and daily exceedances of the federal air quality standards. It concludes with an air quality analysis of these readings.

Chapter 3 Emissions Inventory

This chapter discusses the District's emission inventory (EI). Emission inventories are lists of all known pollutant sources for a specific area. The emission inventory is divided into source categories and subcategories. The main source categories are stationary sources (both point and aggregated), area sources, on-road mobile sources, and off-road mobile sources. This chapter also describes the federal requirements pertaining to emissions inventories for State Implementation Plan (SIP) submittals and includes summaries of the emission inventories used in the PM10 Plan.

Chapter 4 Control Strategy

This chapter provides background information regarding the geographical and meteorological features of the District. It discusses the District's monitoring network and the type of pollutant readings taken at the various monitoring sites, including annual and daily exceedances of the federal air quality standards. It concludes with an air quality analysis of these readings.

Chapter 5 Modeling Analysis

Modeling protocols and methodology is presented here. Information from chapters 3, 4 and 5 are used in the presentation of information in this chapter. The modeling analysis predicts how much additional emission reduction is needed to comply with the air quality standards.

Chapter 6 Attainment Projections

This chapter presents attainment projections for the annual and the 24-hour PM10 standards.

Chapter 7 Reasonable Further Progress

The chapter satisfies the Reasonable Further Progress requirement. There is brief discussion on the District's position regarding the CAA requirement of a five percent annual emission reduction.

Chapter 8 On-Going Activities

The final chapter presents on-going District activities and special research projects that intend to improve the PM10 emissions inventory and future modeling efforts.

Appendices

This is a list compiled for the EPA, to determine the "completeness determination," of this PM10 Plan. It is presented in a checklist form. The location of the documents and/or information that support each administrative or technical requirement is cited accordingly.

Appendix and Title		Appendix and Title	
A	State Implementation Plan (SIP) Checklist	**B**	Basin-wide Summaries of District's On-Road Motor Vehicle EI for 1999, 2002, 2005, 2008, and 2010
C	Updated Emissions Inventory Category Changes	**D**	Growth Factors
E	Control Factor Estimates for Years 1970-2030	**F**	Seasonal Emission Inventories
G	Emission Reduction Credits	**H**	Cap on Growth
I	BACM/BACT Analysis Overview	**J**	De minimis Calculations
K	RACM Demonstration Analysis	**L**	Agricultural CMP Program Concept
M	TPA Process to Identify and Implement BACM	**N**	Attainment Inventories
O	SJVAPCD PM10 Modeling Protocol	**P**	UAM Documentation for NOx and Ammonia

7. Other Agencies Whose Approvals Are Required and Permits Needed:

No other agencies have discretionary authority over this project.

8. Project Compatibility with Existing Zones and Plans:

Not applicable to this project.

9. Name of Person Who Prepared Initial Study:

Hector R. Guerra
Senior Air Quality Planner

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☒ Hazards & Hazardous Materials	☒ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☒ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☒ Mandatory Findings of Significance	

C. DETERMINATION

I certify that this project was independently reviewed and analyzed and that this document reflects the independent judgment of the District.

☐ 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 the mitigation measures described on an attached sheet have been added to the project. A 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 significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

Signature: _____ Date: _____

Printed name: Hector R. Guerra
Title: Senior Air Quality Planner

D. ENVIRONMENTAL IMPACT CHECKLIST

Explanations of all answers on the check-off list are located in Section E.

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
I. AESTHETICS Would the proposal*:*				
a) Affect a scenic vista or scenic highway?				**X**
b) Have a demonstrable negative aesthetic effect?				**X**
c) Create light or glare?				**X**
II. AGRICULTURE 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. Would the project:				
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?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				**X**
III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				**X**
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				**X**
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)?			**X**	

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?				**X**
e) Create objectionable odors affecting a substantial number of people?				**X**
IV. BIOLOGICAL RESOURCES 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?				**X**
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?				**X**
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?				**X**
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?				**X**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
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?				**X**
V. CULTURAL RESOURCES Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				**X**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				**X**

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
VI. GEOLOGY/SOILS Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
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.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
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?				X
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
VII. HAZARDS & 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?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions			X	

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
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?				**X**
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?				**X**
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?				**X**
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**
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?				**X**
VIII. HYDROLOGY/WATER QUALITY Would the project:				
a) Violate any water quality standards or waste discharge requirements?				**X**
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)?			**X**	
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				**X**

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
substantial erosion or siltation on- or off-site?				
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?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?				X
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?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
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?				X
IX. LAND USE/PLANNING Would the project:				
a) Physically divide an established community?				X
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?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
X. 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?				X
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?				X

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
XI. 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?				**X**
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				**X**
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				**X**
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
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?				**X**
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?				**X**
XII. POPULATION/HOUSING 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)?				**X**
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
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:				X
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X
a) Cumulatively exceed official regional or local population projections?				X
b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?				X
c) Displace existing housing, especially affordable housing?				X
XIV. RECREATION				
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?				X
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?				X
XV. TRANSPORTATION/TRAFFIC Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the				X

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
county congestion management agency for designated roads or highways?				
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?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
XVI. UTILITIES/SERVICE SYSTEMS Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
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?				X
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?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
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?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
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?				**X**
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)?				**X**
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				**X**

E. ENVIRONMENTAL IMPACT CHECKLIST COMMENTS

The District conducts CEQA review on each rule during the rule development process at which time a better idea of the methods of compliance is known. The discussion of impacts provided below reflects the general level of knowledge now available.

I. Aesthetics

Adoption of the Plan would not require any changes in the physical environment that would obstruct any scenic vistas or views of interest to the public. The Plan would not create aesthetically offensive sites visible to the public. No significant adverse aesthetic or recreation impacts are expected from the Plan. *[Sources: 1, 6]*

II. Agriculture Resources

Adoption of the Plan would not lead to the conversion of prime or unique farmland to non-agricultural use. The plan will not conflict with existing zoning for agricultural use, or Williamson Act contract. *[Sources: 1, 6]*

III. Air Quality

The rules outlined in the Plan are intended to improve air quality. In some instances, air quality impacts related to Plan adoption tend to occur as secondary impacts dependent upon the control technologies that are ultimately used. For example, a control device may reduce emissions of one pollutant, but increase emissions of another. The methods of control in some cases can be reasonably foreseen because they involve expanding existing requirements to sources that were previously exempt. Those sources are likely to utilize the same control technology as sources that must currently comply with the existing requirements. District rules will involve sources not previously controlled in the San Joaquin Valley. The methods of control can be ascertained to some extent by examining the experience of other air districts that have already controlled these sources. However, the number and location of sources that will change practices due to new and amended rules is only estimated at the general level. Socio-economic analyses are conducted during rule development to more closely identify sources impacted by the rules.

The rules outlined in the Plan will result in the reduction of fugitive PM10 emissions and secondary PM10 caused by human activity. The proposed enhancement to Regulation VIII, however, includes provisions that in some instances may require more extensive paving of unpaved road shoulders. This could result in some additional volatile organic compound (VOC) emissions from asphalt paving. The District regulates asphalt paving through Rule 4641 (Cutback, Slow cure, and Emulsified Asphalt Paving and Maintenance Operations), thus, minimizing emissions from this source. In addition, most cities and counties now require new roads and major road repair projects to include paved shoulders, therefore, most of the paving would occur regardless of enhancement of the rules. This impact therefore is considered to be insignificant.

Based on analysis of the reasonably foreseeable control measures included in the Plan, the Plan will not violate any air quality standards or significantly contribute to an existing or projected air quality violation. Any increase in exposure to sensitive receptors caused by the Plan is less than significant. No alteration of air movement, moisture, temperature, climate change or creation of objectionable odors will result from adoption of the Plan. See the individual rule section for more discussion of this impact. [*Sources: 1, 3, 4, and 6]*

IV. Biological Resources

Adoption of the Plan is not expected to adversely affect existing plant or animal species or communities, unique or endangered plant or animal species, or agricultural crops. No additional significant adverse impacts to biological resources will be affected because biological resources are already disturbed on existing sites and areas where the Plan will be implemented. Further, improvements in air quality from the Plan are expected to provide health benefits to plant and animal species, as well as to humans in the District. *[Sources: 1, 6]*

V. Cultural Resources

As previously noted, any effects from implementing the strategies contain in the Plan will occur at existing sites and areas. As a result, significant impacts to cultural resources are not expected by the Plan because it will not require the destruction of existing buildings or sites with prehistoric, historic, archaeological, religious, or ethnic significance. Adoption of the Plan is not anticipated to result in any activities or promote any programs, which could have a significant adverse impact on cultural resources within the District. *[Sources: 1, 6]*

VI. Geology and Soils

There are no provisions in the Plan that would call for the disruption or over-covering of soil, changes in topography or surface relief features, the erosion of beach sand, or a change in existing siltation rates. Adoption of the Plan will not increase the exposure of people or property to geologic hazards, fault rupture, seismic ground shaking, seismic ground failure, seiche, tsunami or volcanic hazard. *[Sources: 1, 2, 3, and 5]*

VII. Hazard & Hazardous Materials

Although there is no risk of accidental explosion, there is a possible risk in the accidental release of hazardous substances (including, but not limited to: oil, pesticides, or chemicals). Accidental releases or spills should be minimized as applicators must comply with manufacturer specifications and must also comply with regional/state water quality control board requirements when using chemical stabilizers/suppressants. The adopted Plan would not interfere with an emergency response plan or an emergency evacuation plan as the District's adopted and control measures/strategies outlined in the Plan allow exemptions for responses to emergency situations. The Regulation VIII

enhancements outlined in the Plan is intended to reduce fugitive particulate emissions that will benefit public health; there is no risk in creating any health hazard or potential health hazard. An existing exemption for mowing or cutting of weeds and dried vegetation related to fire prevention required by a Federal, State or local agency on a site less than one-half (½) acre would not be affected by the Plan. This exemption is provided for fire prevention activities when conducted for fire management purposes. The Plan would not result in increased exposure of people to existing sources of potential health hazards or increased fire hazard in areas with flammable brush, grass, or trees. *[Sources: 1, 6]*

All chemical dust stabilizers/suppressants products applied to comply with the requirements of Regulation VIII must meet the safety criteria of the Regional Water Quality Control Board to prevent contamination of water supplies. Also, petroleum based products used for this purpose cannot contain contaminants harmful to natural resources and people. *[Sources: 1,6, and 6]*

VIII. Hydrology/Water Quality

In conjunction with Jones and Stokes Associates, District staff conducted an evaluation of the potential impacts that the November 15, 2001 amendments to Regulation VIII would have upon water supplies in the San Joaquin Valley. Based on information generated for the Regulation VIII socio-economic impact assessment and conservative assumptions on the amount of land to be treated and the volume of water required, the projected total annual water use for dust control would increase by about 500 acre-feet per year (af/yr) Valley-wide. Even if the upgrades to Regulation VIII in this Plan are realized, water usage for dust control would, at most, increase to 1,000 af/yr based on doubling water usage. This assumption is also supported by Regulation VIII requirements that unpaved areas reaching higher usage thresholds are required to use other forms of dust control/suppressants such as chemical treatment, road oil, or paving of unpaved surfaces.

The water analysis concluded that the projected increase in water use would be a relatively small quantity compared to the existing surface and groundwater supplies that are available for use in the San Joaquin Valley for public domestic, municipal, industrial, or agricultural consumption. Based on the total annual use of surface and groundwater supplies in the San Joaquin Valley estimated by the Department of Water Resources (DWR) and others, the incremental increase in water used for dust control would represent less than 0.005% of the water supply. If the upgrades to Regulation VIII in this Plan are realized, staff estimates that less than 0.010% of the water supply will be affected.

The water analysis also concluded that even under a worst-case scenario of concentrated groundwater use at a single site, the implementation of the upgrades to Regulation VIII would not result in the significant drawdown of a single well. The amount of water projected to be used to comply with the upgrades to Regulation VIII as contained in the Plan will not lead to accelerated land subsidence conditions.

The water analysis also examined potential cumulative impacts on water supplies. The incremental increased water use for dust control is considered negligible with respect to the overall water supply conditions for all uses. The potential cumulative contribution of water use for dust control is not expected to significantly affect water supplies or groundwater conditions in the project area.

Water usage is not expected to be the only control option used in farming operations for farmers who participate in the Conservation Management Practices Program (CMP). As noted above, Regulation VIII will require using other forms of suppressants such as chemical treatment, road oil, or paving of unpaved surfaces as higher usage thresholds are reached. See the individual rule section for more discussion of this impact. *[Sources: 1, 2, 3, 5, and 6]*

IX. Land Use/Planning

The Plan has no characteristics that would directly change land use, zoning or land use plans or directly affect the land use classification, or location criteria of any public or private residential, commercial, industrial, or public land use facility.

In addition, in urban areas, the expanded rules outlined in the Plan would only apply to land uses that have previously been approved by other public review agencies (i.e., city and county planning commissions, city councils, and boards of supervisors). As such, each project should have been subject to environmental review, either at the general plan level, or on a project-by project basis. Any specific impacts associated with the Plan implementation, such as increased water use or use of chemical suppressants, etc., would be subject to further review at the time of site specific project development.

Indirectly, however, the Plan could affect land use and planning. All new general plan, general plan elements, amendments to general plans, and other changes in land use planning that might implement this strategy are subject to CEQA and impacts and mitigation measures (if required) would be identified at the time such activities actually occur.

The Plan also includes a discussion of control strategies related to agricultural operations. Agricultural sources and activities for which research is anticipated to be conducted include unpaved agricultural roads, agricultural tilling and land preparation, stabilization of disturbed agricultural areas, growing season activities, harvesting, and fowl and confined animal waste. Control strategies, as identified through this research, could be incorporated into voluntary resource conservation plans or other appropriate mitigative techniques could be used depending upon the nature of the problems.

There are no provisions in the Plan that would affect land use plans, policies, or regulations. It is also expected that the proposed amended rule will not affect infrastructure development or require changes to existing zone designations because the Plan primarily regulates sources at existing facilities. Adoption of the Plan will not alter land use and other planning considerations or planning requirements. *[Sources: 1, 6]*

X. Mineral Resources

Adoption of the Plan would not affect the availability of any mineral resource. There are no provisions in the rules contained in the Plan that would either conflict with adopted energy conservation plans nor result in the use of non-renewable resources in a wasteful and inefficient manner nor result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State.

There would also not be a substantial change in use of renewable or non-renewable resources. There may be very minor increases in the use of gasoline and diesel fuels for water and chemical application equipment and in petroleum used in manufacturing chemical suppressants, but these potential increases would be less than significant. See the individual rule section for more discussion of this impact. *[Sources: 1, 6]*

XI. Noise

The Plan includes a requirement within Regulation VIII to change out conventional rotary brush street sweepers to "PM10-efficient street sweepers". Change out to PM10-efficient street sweepers may result in increased noise impacts due to use of more powerful vacuuming devices. These sweepers are currently operating in urban areas of California and in other states and have met commonly adopted noise standards. Therefore, the increase in noise associated with the change out from conventional rotary brush street sweepers to PM10-efficient street sweepers is expected to be less than significant. Equipment used to distribute water and/or chemical suppressants would generate routine noise associated with construction and/or maintenance activities. Any noise would be very short-term and would be subject to local noise abatement regulations. Also, workplaces installing equipment must comply with OSHA and local noise standards. *[Sources: 1, 5, and 6]*

XII. Population/Housing

There are no provisions in the Plan that would result in the creation of any industry that would effect population growth, or directly or indirectly induce the construction of single- or multiple-family units. No population relocation or growth inducement is expected from the amended rules implementation. See Item IX (Land Use and Planning) for additional information. *[Sources: 1, 6]*

XIII. Public Services

The adopted Plan will not result in impacts to fire and police protection services. Existing schools and park or other recreational facilities will not be impacted by the adopted Plan; however construction-related activities (i.e., excavating, leveling, trenching, etc.) for new schools and parks or, other recreational facilities, may be required to comply with fugitive dust prevention/clean-up requirements. *[Sources: 1, 6]*

XIV. Recreation

Adoption of the Plan will not adversely affect recreational facilities or resources in the District. These conclusions are based on the fact that any physical changes would occur at existing agricultural, industrial, or commercial sites and roads supporting these sites. *[Sources: 1, 6]*

XV. Transportation/Traffic

Adoption of the Plan will not result in increased vehicle trips or traffic congestion upon public paved roads, hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) nor will the rule conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks). *[Sources: 1, 6]*

XVI. Utilities/Service Systems

The implementation of some rules contained in the Plan may result in additional energy use. The level of increased energy use will not cause a considerable demand or increase in services. The increase in demand for natural gas will not result in substantial alterations to utility systems. Therefore, adoption of the Plan will not result in any demand for new utilities or service systems, or result in any substantial demand on existing sources. See the individual rule section for more discussion of this impact.

As outlined in the Plan, changes to Regulation VIII may affect local power or natural gas that is converted to electrical power used as energy sources to pump water that will ultimately be used as a dust suppressant. The estimated amount of water that may be used is provided in Item VIII (Hydrology/Water Quality). This increase in energy use is considered negligible since it will not result in the need for additional power plants or modifications to power distribution systems.

As noted in Item VIII (Hydrology/Water Quality), local or regional water supplies may be affected due to increased watering to reduce fugitive particulate emissions; however, the use of water as a dust suppressant is not the exclusive option available.

There are no provisions in the Plan that would affect existing communication systems, sewer or septic tanks, or regional water treatment or distribution facilities.

The Plan would not result in any demand for new utilities or service systems, or result in any substantial demand on existing sources. See Item VIII (Hydrology/Water Quality) for a discussion of potential impacts on water and public water supplies. *[Source: 6]*

XVI. Mandatory Findings of Significance

a. The project does not 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.

b. The project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

c. The project does not have impacts which are individually limited, but cumulatively considerable.

d. The project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

Sources: 1, 6

F. SOURCES

1. San Joaquin Valley Unified Air Pollution Control District. *Draft 2003 PM10 Plan,* March 2003.

2. San Joaquin Valley Unified Air Pollution Control District. *1994 Serious Area PM10 Plan.* September 14, 1994.

3. San Joaquin Valley Unified Air Pollution Control District. Initial Study and Final Negative Declaration for *1994 Serious Area PM10 Plan.* Adopted September 14, 1994.

4. San Joaquin Valley Unified Air Pollution Control District. Rule 4641. Adopted April 11, 1991, Amended September 19, 1991, Amended December 17, 1992.

5. San Joaquin Valley Unified Air Pollution Control District. Initial Study and Final Negative Declaration for amendments to Regulation VIII. Adopted November 15, 2001.

6. San Joaquin Valley Unified Air Pollution Control District CEQA staff: Dave Mitchell, Supervising Air Quality Planner and Hector R. Guerra, Senior Air Quality Planner.

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59 cities within District Boundaries (Planning Directors)

Eight Counties within District Boundaries (Planning Directors)

The District conducts CEQA review on each rule during the rule development process at which time a better idea of the methods of compliance is known. The discussion of impacts provided below reflects the general level of knowledge now available.

Conservation Management Practices Program. The affected sources for this category include on-field agricultural operations, such as land preparation and harvesting; off-field activities, such as unpaved access roads; equipment parking and storage areas; and inactive open area windblown emissions. Other affected agricultural sources include concentrated animal feeding operations (CAFO). Certain crop categories that prevent PM10 emissions or produce only small amounts of PM10 during some or all of the growing cycle will be considered to meet one or more of the CMP requirements.

Practices reducing emissions fall into several broad categories:

- Practices that reduce or eliminate the need to disturb the soil;
- Practices that protect the soil from wind erosion;
- Equipment modifications to physically produce less PM10;
- Applying water or dust suppressants in off-field, high traffic areas;
- Reducing speeds or access on unpaved roads and parking areas;
- Alternative practices to waste burning; and
- Actions that reduce pesticide application.

Some examples of the suggested CMPs are combined operations, conservation tillage, cover crops/native vegetation, equipment changes, overhead systems, orchard floor management, and dust suppressants. For example, the combined operations CMP would specify combining pieces of equipment to perform several operations in one pass, which would reduce soil disturbance and PM emissions. The details of each CMP will be included in the CMP Handbook. The primary criteria for including a conservation practice in the program is that there must be a reasonable certainty that it will result in emission reductions.

The District is also proposing to include PM10 emissions from CAFO, such as dairies, beef feedlots and poultry operations in the CMP Program. There are a number of practices listed in the literature for these facilities that are expected to reduce PM10 emissions. However, most research literature on the subject that describes possible control methods contains little or no performance data. VOC emissions and potential reductions are not well characterized. The PM10 Plan will not claim any VOC reductions from the CMP Program.

As noted in Item X (Mineral Resources), there would also not be a substantial change in use of renewable or non-renewable resources. There may be very minor increases in the use of gasoline and diesel fuels for water and chemical application equipment and in petroleum used in manufacturing chemical suppressants, but these potential increases would be less than significant. As noted in Item XVI (Utilities/Service

Systems), the implementation of some rules contained in the Plan may result in additional energy use. The level of increased energy use will not cause a considerable demand or increase in services. The increase in demand for natural gas will not result in substantial alterations to utility systems. Therefore, adoption of the CMP component of the Plan will not result in any demand for new utilities or service systems, or result in any substantial demand on existing sources. As noted in Item VIII (Hydrology/Water Quality), local or regional water supplies may be affected due to increased watering to reduce fugitive particulate emissions; however, the use of water as a dust suppressant is not the exclusive option available. As noted in item VII (Hazardous/Hazardous Materials), all chemical dust stabilizers/suppressants products applied to comply with the requirements of Regulation VIII must meet the safety criteria of the Regional Water Quality Control Board to prevent contamination of water supplies. Also, petroleum based products used for this purpose cannot contain contaminants harmful to natural resources and people. As noted above, the CMP encourages the most efficient uses of resources to minimize release of air pollutants. Control options will vary upon the source being controlled. Emissions can be effectively reduced without significant impacts on mineral resources, utilities/service systems, hydrology/water quality, or hazardous/hazardous materials.

Indirect Source Review. Indirect sources are land uses that attract or generate motor vehicle trips. Indirect source emissions are not emitted directly from activities at the location, as is the case for stationary sources such as boilers, and fuel storage tanks, but are the result of vehicles traveling to and from the site. They include residential, commercial, industrial, and institutional development.

Under the Indirect Source Mitigation Fee Program, new development projects would be required to mitigate a portion of their emissions by contributing to a mitigation fund that would be used to pay for the most cost-effective projects to reduce emissions. The program could be managed by the District or delegated to cities and counties.

This component of the Plan will not alter land use and other planning considerations or planning requirements. There are no provisions that would affect land use plans, policies, or regulations. Transportation/traffic will not result in an increase of vehicle trips or traffic congestion upon public paved roads, hazards to safety from design features, or incompatible uses; nor will the rule conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks). No significant impacts are expected.

Residential Wood Combustion (Rule 4901). This rule address wood-burning devices such as fireplaces, pellet stoves and wood stoves that burn solid fuels such as cordwood, pellet fuel, manufactured logs, or any other non-gaseous or non-liquid fuels. Amendments to existing Rule 4901 will reduce exposure to carbon monoxide and PM10 emissions from wood burning devices. Rule changes include declaration of mandatory curtailment on high pollution days, limiting the number of fireplaces and wood burning devices per acre in new residential developments, and requiring fireplaces or woodstoves to have EPA-certified Phase II standards upon property sale or transfer.

Reducing the number of burn day opportunities will reduce PM10 emissions from solid fuel burning devices. As there will be a limited number of no burn days per year (approximately 10-20, as each year will vary due to meteorological conditions), a slight increase in natural gas and electricity usage may occur; however, no significant impacts are expected.

Regulation VIII Fugitive Dust Rules. Regulation VIII is a series of rules that is aimed at reducing fugitive PM10 emissions. Sources regulated under these rules include: construction, demolition, extraction, excavation, earthmoving activities, bulk materials, landfill disposal sites, carryout and trackout, open areas, paved and unpaved roads, unpaved vehicle/equipment traffic areas, and agricultural sources. Regulation VIII was adopted in 1993 and has undergone revisions in 1994, 1996, and 2001. The Plan outlines amendments to Regulation VIII such as changes in administrative requirements (e.g., reporting requirements and dust control plans), applicability (i.e.; what sources the rules apply to), thresholds (e.g., amount of activity, such as vehicular passes per day, or size of an area where an activity occurs, or amount of material moved during an activity, etc.), and additional control options. Controlling fugitive dust sources often requires compliance with more than one Regulation VIII rule. For example, during construction activities, it is possible that earthmoving activities, handling and storage of bulk materials, use of unpaved roads, use of unpaved vehicle/equipment traffic areas, and carryout/trackout will occur. The methods of control are not likely to be different than those analyzed when Regulation VIII was last updated (November 15, 2001). Dust control methods may increase the use of water and chemical stabilizers to prevent windblown and entrained dust. A possible increase in water usage may result; however, water is not the only control option available. Therefore, no significant impacts on water usage are expected. Any chemical stabilizer must comply with state and federal requirements that prevent contamination of water supplies; therefore, no significant impacts are expected by the usage of chemical stabilizers.

Glass Melting Furnaces (Rule 4354). This rule reduces NOx produced during combustion. One probable method of compliance with this rule will be the installation of oxygen fuel systems. Liquid oxygen is a cryogenic substance that will require special handling that must comply with state and local regulation. Compliance with existing regulations is expected to prevent significant impacts from occurring. A second method of control is the injection of fuel gas into the exhaust stream to reduce NOx. This causes an insignificant increase in fuel consumption.

Gas-Fired Oilfield Steam Generators (Rule 4305). This rule is intended to assure appropriate control of SOx emissions from steam generators used in petroleum production. Steam generators are similar to boilers found at industrial sources in that they produce steam for a process. In this source category, the steam generator is fired on oilfield gas to produce steam that is injected into oil reservoirs to decrease the viscosity of the oil being extracted. The majority of these units are located in Kern and Fresno County oilfields. The probable method of compliance could be achieved through fuel conditioning (“sweetening”). Caustic scrubbing of the exhaust gas has also been an

effective method of SOx control. A small and insignificant increase in fuel consumption may occur with the use of low-NOx burners. No other significant impacts are expected.

Dryers and Ovens (Rule 4307). This rule reduces NOx produced during combustion. The probable method of compliance will be through the installation of low-NOx burners on equipment not currently covered by the existing rule. A small and insignificant increase in fuel consumption may occur with the use of low-NOx burners. No significant impacts are expected.

Stationary Gas Turbines (Control Measure 4703). Control Measure 4703 would reduce NOx emissions from stationary gas turbines. A stationary gas turbine is a large internal combustion engine, similar to a jet engine. Existing turbines in the San Joaquin Valley generally employ water or steam injection, dry low-NOx combustion technology, or selective catalytic reduction, or some combination thereof, to control NOx emissions. Stationary gas turbines are used in oil production and refining, food processing, petroleum transportation, irrigation district water pumping, and power generation. The control measure would lower measured concentration emissions compliance limits of NOx and CO for stationary gas turbines with different limits set for turbines rated at >0.3 MW but <10.0 MW, and for turbines > 10.0 MW. It is anticipated that some turbines will have to install Selective Catalytic Reduction (SCR) control systems to comply with the proposed emission limits. SCR is known to cause an increase in ammonia emissions, or ammonia slip, under some circumstances. Levels of ammonia emissions from ammonia slip are not expected to reach hazardous levels and are minimized in properly maintained equipment.

Stationary Internal Combustion (IC) Engines (Control Measure 4701). The purpose of this control measure is to reduce NOx emissions from stationary IC engines. The number of permitted IC engines in the District is estimated to be approximately 1,700 (excluding portable engines). Due to their utility, these engines are used throughout the San Joaquin Valley in almost every industry regulated by the District. IC engines are used to power machinery for electricity generation, oil production, manufacturing, food and fiber processing, and for commercial/institutional applications. In 1996, the last year for which such data is available, approximately 62% of permitted engines were located in Kern and Tulare Counties, 19% in Fresno, Kings, and Madera Counties, and 19% in Merced, San Joaquin, and Stanislaus Counties. The District's existing Rule 4701 reduces emissions from stationary IC engines by placing NOx emissions limits on their operation. Further reductions can be achieved by increasing the stringency of NOx emission limits to meet recently adopted BARCT standards and by making the standards applicable to certain engines now exempted from the rule. It is anticipated that in some IC engines will have to install Selective Catalytic Reduction (SCR) control systems to comply with the proposed emission limits. SCR is known to cause an increase in ammonia emissions, or ammonia slip, under some circumstances. Levels of ammonia emissions from ammonia slip are not expected to reach hazardous levels and are minimized in properly maintained equipment.

Boilers, Steam Generators and Process Heaters (Control Measure 4305). Control Measure 4305 is intended to reduce NO_x emissions and to prevent any increase in carbon monoxide (CO) emissions from boilers, process heaters, and steam generators. The measure would affect any new or existing boiler, steam generator, and/or process heater with a rated heat input capacity greater than 2 million Btu per hour. Facilities with units that are subject to this control measure represent a wide range of industries, including but not limited to, medical facilities, educational institutions, office buildings, prisons, military facilities, hotels, and industrial facilities (including agricultural processing facilities). Many units that are subject to this control measure are already required by the District to have permits to operate. Due to the diversity of industries, units in this source category may be located throughout the eight (8) county area of the SJVAB. Based on population and job-base, there may be more units located in urban and suburban settings. Combustion modifications appropriate for small boilers, steam generators, and process heaters include low excess air, low NO_x burners, water/steam injection, and flue gas recirculation (FGR). Post-combustion controls can include the use of selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) treatment of the exhaust stream. It is anticipated that in some boilers, steam generators, and process heaters will have to install Selective Catalytic Reduction (SCR) control systems to comply with the proposed emission limits. SCR is known to cause an increase in ammonia emissions, or ammonia slip, under some circumstances. Levels of ammonia emissions from ammonia slip are not expected to reach hazardous levels and are minimized in properly maintained equipment. No significant impact is expected.

Boilers, Steam Generators and Process Heaters (Control Measure 4352). This measure would reduce NOx emissions from boilers, process heaters, and steam generators. The measure would affect 14 currently permitted units in this category within the SJVAB. Facilities in this category generate utility and industrial power (electricity and heat); burning petroleum coke; municipal solid waste; or biomass wastes which includes wood, vine clippings, leaves, grass, and other by products of the farming and food processing industries. Emission controls appropriate for solid fuel fired units include low excess air, low NOx burners, selective non-catalytic ammonia injection, thermal de-NOx, and limestone injection for SOx control. Levels of ammonia emissions from ammonia slip are not expected to reach hazardous levels and are minimized in properly maintained equipment. No significant impact is expected.

Can and Coil Coatings (Control Measure 4604). This control measure would reduce VOC emissions from the coating of can and coil products. Can and coil coatings are predominantly used to coat metallic parts such as metal cans, drums, pails, or lids and to the surfaces of flat metal sheets, strips, rolls, or coils produced in manufacturing operations. Can and coil coating operations in this source category are present in both urban and suburban settings in the San Joaquin Valley Air Basin and emit uniformly throughout the year. Rule 4604 currently regulates can and coil coating operations that use more than three (3) gallons of coatings per day. The rule requires operators to achieve emission limits by using low VOC coatings or by using any other emission control process with a minimum of 90% VOC control efficiency. The VOC content limits

vary based upon the product and process involved. This type of control measure usually results in the use of coatings that are less toxic than the original high VOC coatings. A small and insignificant increase in electricity consumption may occur; however, no significant impacts are expected. When the rule development process goes forward and potential substitute coatings are identified this issue will be reexamined for potential impacts.

Wineries. This control measure will control VOC from two winery processes: wine fermentation and wine aging. During the fermentation process, the sugars in grape juice undergo a reaction with yeast to produce ethyl alcohol (ethanol) and carbon dioxide. Temperature is critical in the fermentation process and specific tolerance ranges for red, white, sparkling and dessert wines. A growing practice for wineries is the use temperature controlled fermentation tanks. Refrigeration of fermentation tanks can also serve to inhibit the evaporation of ethanol. A small and insignificant increase in electricity consumption for refrigeration units may occur; however, no significant impacts are expected.

Small Boilers, Steam Generators, and Process Heaters from 2 MMBtu/hour to 5MMBtu/hour. The intent of this control measure is to reduce NOx and SOx emissions from a wide range of industries, including but not limited to medical facilities, educational institutions, office buildings, prisons, military facilities, hotels, and industrial facilities (including agricultural processing facilities). The diversity of these industries allows this source category to be located throughout the SJVAB. Based on population and job-base, there are likely to be more of these units located in urban and suburban settings. These units are not currently regulated by District permitting process or prohibitory rules. Combustion modifications appropriate for small boilers, steam generators, and process heaters include low excess air, low NOx burners, and flue gas re-circulation (FRG). A small and insignificant increase in fuel consumption may occur with the use of low-NOx burners

Water Heaters 75,000 Btu/hour to 2 MMBtu/hour. The intent of this control measure is to reduce NOx and SOx emissions from existing and new industrial, commercial, and institutional facilities that use water heaters units with a rated heat input capacity between 75,000 Btu/hour and 2 MMBtu/hour. Facilities with units that are subject to this control measure represent a wide range of industries, including but not limited to medical facilities, educational institutions, office buildings, prisons, military facilities, hotels, and industrial facilities (including agricultural processing facilities). The diversity of these industries allows this source category to be located throughout the SJVAB. Based on population and job-base, there are likely to be more of these units located in urban and suburban settings. These units are not currently regulated by District permitting process or prohibitory rules and the District does not anticipate issuing permits for these units in the future. NOx and SOx prohibitory rules may be coupled with a financial incentive program to accelerate replacement or retrofit of higher polluting units. No significant impacts are expected.