APPENDIX A: AB 170 REQUIREMENTS

AB 170 requires that general plans include all of the following information (CA Government Code Section 65302.1(c)):

(1) A report describing local air quality conditions including air quality monitoring data, emission inventories, lists of significant source categories, attainment status and designations, and applicable state and federal air quality plans and transportation plans.
(2) A summary of local, district, state, and federal policies, programs, and regulations that may improve air quality in the city.
(3) A comprehensive set of goals, policies, and objectives that may improve air quality consistent with the following strategies as listed in CA Government Code Section 65302.1(a)(3):
   - Determine and mitigate project level and cumulative air quality impact under CEQA.
   - Integrate land use plans, transportation plans, and air quality plans.
   - Plan land uses in ways that support a multimodal transportation system.
   - Local action to support programs that reduce congestion and vehicle trips.
   - Plan land uses to minimize exposure to toxic air pollutant emissions from industrial and other sources.
   - Reduce particulate matter emissions from sources under local jurisdiction.
   - Support district and public utility programs to reduce emissions from energy consumption and area sources.
(4) A set of feasible implementation measures designed to carry out those goals, policies and objectives.

Items (3) and (4) above are included in the Land Use Element (Chapter 2.0), Conservation and Open Space Element (Chapter 3.0), Circulation Element (Chapter 5.0) and Air Quality Element (Chapter 9.0) of the General Plan.

The information required for items (1) and (2) is included below.

ITEM 1: LOCAL AIR QUALITY CONDITIONS, DATA, INVENTORIES AND STATUS

TOPOGRAPHY AND CLIMATE

The San Joaquin Valley Air Basin (SJVAB) is a major geographic, population, and agricultural sub-region of California. It occupies the southern half of the Central Valley of California and is comprised of the counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the valley portion of Kern County. The SJVAB covers nearly 25,000 square miles and represents approximately 16% of the geographic area of California.

The SJVAB is approximately 250 miles long and averages 35 miles wide, and is the second largest air basin in the state. The SJVAB is defined by the Sierra Nevada in the east (8,000 to

14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The San Joaquin Valley (Valley), thus, could be considered a "bowl" open only to the north. The City of Wasco is located at the southern end of the SJVAB.

Air pollutant emissions overall are fairly constant throughout the year, yet the concentrations of pollutants in the air vary from day to day and even hour to hour. This variability is due to complex interactions of weather, climate, and topography. These factors affect the ability of the atmosphere to disperse pollutants. Conditions that move and mix the atmosphere help disperse pollutants, while conditions that cause the atmosphere to stagnate allow pollutants to concentrate. Local climatological effects, including topography, wind speed and direction, temperature, inversion layers, precipitation, and fog can exacerbate the air quality problem in the SJVAB.

During the summer, wind speed and direction data indicate that wind usually originates at the north end of the Valley and flows in a south-southeasterly direction through the Valley, through Tehachapi pass, into the Southeast Desert Air Basin. In addition, the Altamont Pass also serves as a funnel for pollutant transport from the San Francisco Bay Area Air Basin into the region.

During the winter, wind speed and direction data indicate that wind occasionally originates from the south end of the Valley and flows in a north-northwesterly direction. Also during the winter months, the Valley generally experiences light, variable winds (less than 10 mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high carbon monoxide (CO) and particulate matter (PM10 and PM 2.5) concentrations.

The SJVAB has an inland Mediterranean climate averaging over 260 sunny days per year. The valley floor is characterized by warm, dry summers and cooler winters. For the entire Valley, high daily temperature readings in summer average 95ºF. Temperatures below freezing are unusual. Average high temperatures in the winter are in the 50s, but highs in the 30s and 40s can occur on days with persistent fog and low cloudiness. The average daily low temperature is 45ºF.

The vertical dispersion of air pollutants in the Valley is limited by the presence of persistent temperature inversions. Solar energy heats up the Earth's surface, which in turn radiates heat and warms the lower atmosphere. Therefore, as altitude increases, the air temperature usually decreases due to increasing distance from the source of heat. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface or at any height above the ground, and tend to act as a lid on the Valley, holding in the pollutants that are generated here.

CRITERIA POLLUTANTS AND GREENHOUSE GASES

Criteria Pollutants

In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere. Air pollution in the Valley results from emissions generated in the Valley as well as from emissions and secondary pollutants transported into the Valley. It is thought that the bulk of the Valley's summer and winter air pollution is caused by locally generated emissions. The following is a description of air pollutants that are used by the Environmental Protection Agency (EPA) and the Air Resources Board (ARB) as indicators of ambient air quality.

Ozone – Ozone is the major component of the Valley's summertime "smog," and it affects human health and vegetation. Ozone is not emitted directly into the air, but is created by a series of chemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NOx) that take place in the presence of sunlight. ROG and NOx are emitted from fuel combustion, agricultural processes, and industrial processes that are widespread throughout the Valley as well as from natural sources. Studies have also linked urban areas with both higher regional temperatures and higher ozone levels (a phenomenon known as the "urban heat island effect").

High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments. Ozone also damages natural ecosystems such as forests and foothill communities, agricultural crops, and some man-made materials, such as rubber, paint, and plastics.

Emissions of the ozone precursors NOx and ROG are decreasing in the San Joaquin Valley Air Basin. Both stationary source and motor vehicle NOx emissions have been reduced by the adoption of more stringent emission standards. Stricter standards have reduced ROG emissions from motor vehicles since 1980, even though vehicle miles travelled (VMT) have been increasing. Despite these reductions, the Valley is classified as extreme nonattainment for 1-hour ozone standards and serious nonattainment for 8-hour ozone standards.

Reactive Organic Gases – Reactive organic gases (ROG), also known as volatile organic compounds (VOC), are photochemically reactive hydrocarbons that are important for ozone formation. The primary sources of ROG are petroleum transfer and storage, oil and gas production, mobile sources, organic solvent use, farming operations, and miscellaneous processes. No separate health standards exist for ROG as a group. Because some compounds that make up ROG are also toxic, like the carcinogen benzene, they are often evaluated as part of a toxic risk assessment.

Oxides of Nitrogen – Oxides of Nitrogen (NOx) are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NOx, nitrogen dioxide (NO_2), is a reddish-brown gas that is toxic at high concentrations. NOx results primarily from the combustion of fossil fuels under high temperature and pressure.

On-road and off-road motor vehicles and fuel combustion are the major sources of this air pollutant, and they emit approximately 41% (on-road), 27% (off-road), and 25% (Fuel combustion) of the total NOx released in the Valley.

Currently the Valley is in attainment for both state and federal NO_2 standards (NO_2 compromises most of NOx). As a chemical precursor involved in ozone and PM10/PM2.5 formation, however, emissions of NO_2 indirectly contribute to high pollutant concentrations in the Valley.

Particulate Matter – Particulate matter (PM) is any material except pure water that exists in the solid or liquid state in the atmosphere. Suspended particulate matter (airborne dust) consists of particles small enough to remain suspended in the air for long periods. Respirable particulate matter (PM10 and PM2.5) includes particulates of 10 microns or less in diameter for PM10 and 2.5 microns or less for PM2.5 – those that are small enough to be inhaled, pass through the respiratory system, and lodge in the lungs with resultant heath effects.

Generally speaking, PM2.5 sources tend to be combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM10 sources include these same sources plus road (28.8%) and farming activities (23.5%). Fugitive windblown dust and other area sources also represent a source of airborne dust in the Valley (15%).

Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children.

PM10 and PM2.5 are primary pollutants (emitted directly to the atmosphere) and secondary pollutants (formed in the atmosphere by chemical reactions) among precursors. Health-based state and federal PM10 standards are frequently exceeded in all areas of the Valley. PM10 samples are taken over a 24 hour period every 6th day. The state annual standards have been violated every year of monitoring for which data is available (1998-2004). Available PM10 data shows some variation during the trend period, but overall there has been a downward trend.

Part of the variation can be attributed to meteorology. Long periods of stagnation during the winter months allow PM10 to accumulate over many days with resulting high concentrations. The maximum annual geometric mean shows a decrease of about 19% from 1998 to 2001. The calculated number of days exceeding the state and national 24 hour

standards also show a decrease. There were 300 calculated state standard exceedance days and 40 calculated national exceedance days during 1998. During 2001, there were 236 calculated state standard exceedance days and 12 calculated national standard exceedance days.

Carbon Monoxide – Carbon monoxide (CO) is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels and is emitted directly into the air (unlike ozone). The main source of CO in the San Joaquin Valley is on-road motor vehicles. The emissions inventory of the San Joaquin Valley Air Basin shows that on-road motor vehicles contribute approximately 53% of total CO emissions. Other CO sources in the Valley include other mobile sources, miscellaneous processes, and fuel combustion from stationary sources.

Because of the local nature of CO problems, the EPA and ARB designate urban areas as CO nonattainment areas instead of the entire basin as with ozone and PM10. Emissions of CO are trending downward between 1985 and 2010. Motor vehicles are by far the largest source of CO emissions. Emissions from motor vehicles have been declining since 1985, despite increases in vehicle miles traveled (VMT), with the introduction of new automotive emission controls and fleet turnover.

Sulfur Dioxide – Sulfur Dioxide (SO_2) is a colorless, irritating gas with a "rotten egg" smell formed primarily by the combustion of sulfur-containing fossil fuels. Historically, in the late 1970's in Kern County, SO_2 was a pollutant of concern but with the successful application of regulations, the levels have reduced significantly. The latest data from the ARB demonstrates that the highest 1-hour concentration for SO_2 was 0.01 ppm. With the California Ambient Air Quality Standards (CAAQS) being 0.25 ppm, it demonstrated that SO_2 concentrations in the SJVAB are only about 4% of the standard.

The SJVAB is in attainment of both the federal and California standards. However, like airborne NOx, suspended SOx particles contribute to the poor visibility that sometimes occurs in the Valley. These SOx particles are also a component of PM10. The prevalence of low-sulfur fuel use in Valley has minimized problems from this pollutant.

Lead – Lead (Pb) is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment so it essentially persists forever. The health effects of lead poisoning include loss of appetite, weakness, apathy, and miscarriage; it can also cause lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract.

Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of Pb have dropped dramatically.

Lead concentrations were last systematically measured in the SJVAB in 1989, when the average concentrations were approximately 5% of the state lead standard. Though monitoring was discontinued in 1990, lead levels are probably well below applicable standards, and the SJVAB is designated in attainment for lead.

Greenhouse Gases

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. There are no "attainment" concentration standards established by the federal or state government for greenhouse gases. In fact, GHGs are not generally thought of as traditional air pollutants because greenhouse gases, and their impacts, are global in nature, while air pollutants affect the health of people and other living things at ground level in the general region of their release to the atmosphere.

Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and chlorofluorocarbons (CFCs). Some greenhouse gases occur naturally and are emitted to the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are CO_2, CH_4, N_2O, and fluorinated carbons.

- **Carbon Dioxide** – CO_2 enters the atmosphere through the burning of fossil fuels, solid waste, trees and wood products. CO_2 is also as a result of other chemical reactions (e.g., certain manufacturing processes). CO_2 is removed from the atmosphere through the photosynthesis process (the process in which plants absorb and convert CO_2 into energy).

- **Methane** – CH_4 is emitted during the production and transport of coal, natural gas, and oil. CH_4 is also the natural result of the ruminant digestive processes in livestock and other agricultural practices and by the decay of organic waste.

- **Nitrous Oxide –** N_2O is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- **Fluorinated Gases** – Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride are synthetic gases that are emitted from a variety of industrial processes. These gases are typically emitted in smaller quantities, but because of their potency, they are sometimes referred to as High Global Warming Potential gases (High GWP gases).

AIR QUALITY MONITORING DATA

The San Joaquin Valley Air Pollution Control District (District), the ARB, the U.S. National Park Service, and the Santa Rosa Rancheria in Lemoore operate an extensive air monitoring network to measure progress toward attainment of the National Ambient Air Quality Standards (NAAQS). Air quality monitoring networks are designed to monitor areas with high population

densities, areas with high pollutant concentrations, areas impacted by major pollutant sources, and areas representative of background concentrations. Some monitors are operated specifically for use in determining attainment status, while others are operated for other purposes, such as for generating daily air quality forecasts. In total, the District utilizes ozone and PM data from over 60 monitors operated at 29 sites in the Valley. All monitors must comply with the pollutant standard for the San Joaquin Valley to be considered as attainment for that standard.

EMISSIONS INVENTORIES

An emission inventory is an itemized list of pollutants in a given area for a specified time period. Present and future year inventories are important parts of air quality planning and modeling. Air pollution comes from many sources such as large industrial facilities, as well as things we use in our daily lives such as cars and trucks, paints, and aerosol spray products. For convenience, sources of air pollution have been grouped into the categories listed below to reflect the source of emissions or the purpose of the estimate.

Area Source – Area source emissions are from sources that are not regulated by the District, or are individually so small that they may not be included in the District's survey system. These small sources may not individually emit significant amounts of pollutants, but when aggregated can make an appreciable contribution to the emission inventory. Examples of these area sources are residential water heating and use of paints, varnishes, and consumer products. Emissions from these sources are grouped into categories and calculated based on surrogate variables.

Of the more than 500 area-wide source categories established by the ARB, the District is responsible for estimating emissions from approximately 100. Emissions for the remaining categories are estimated by either ARB or the Department of Pesticide Regulation (DPR).

Point Source – Facilities that have valid District permits are called point sources. Refineries, gas stations, dry cleaners and industrial plants are examples of point sources in our District. The District's Technical Services Division collects and maintains a database with detailed information on each point source that submits data. Almost all facilities emitting greater than 2.5 tons/year of any air pollutant are included. The District's database contains information for more than 4,000 facilities.

Data on the activity, seasonal variations, and hours of operation are collected from each facility each year through a survey process. Emissions are calculated using detailed data for each of the facilities by various processes. Each year the District provides point source emissions inventory data to ARB to be included in their CEIDARS database.

Mobile Source – Mobile sources consist of motor vehicles among other mobile sources. Mobile sources are classified as being on-road or off-road. On-road motor vehicles consist of passenger cars, trucks, buses and motorcycles. Emissions from on-road motor vehicles

are a major portion of the emission inventory, and are estimated by ARB using computer models. Off-road mobile sources generally consist of vehicles in which the primary function is not transportation. Examples of off-road vehicles include construction and farm equipment.

Other mobile sources include boats and ships, trains, and aircraft. The District estimates emissions for ships and aircraft in our area source inventory. The remaining sources are estimated by ARB as part of their off-road inventory.

Natural Source – In addition to man-made air pollution, there are significant quantities of pollutants from natural sources. Natural sources include biological and geological sources, wildfires, windblown dust, and biogenic emissions from plants and trees. Emissions from natural sources are estimated by ARB.

Detailed information regarding current emissions inventory for the San Joaquin Valley Air Basin can be found on the ARB website at: http://www.arb.ca.gov/ei/emissiondata.htm.

SIGNIFICANT SOURCE CATEGORIES

The District has projected the top 10 sources for emissions in the San Joaquin Valley Air Basin, which are identified in **Table A-1**.

Table A-1
Top 10 Sources – Criteria Pollutant Emissions

NOx	VOC	PM2.5
Heavy Heavy-Duty Diesel Trucks	Farming Operations	Managed Burning and Disposal
Off-Road Equipment	Oil and Gas Production	Residential Fuel Combustion
Farm Equipment	Consumer Products	Farming Operations
Trains	Pesticides/Fertilizers	Heavy Heavy-Duty Diesel Trucks
Medium Heavy Duty Diesel Trucks	Light Duty Passenger Vehicles	Fugitive Windblown Dust
Light Duty Passenger Vehicles	Heavy Heavy-Duty Diesel Trucks	Paved Road Dust
Light Duty Trucks – LDT2	Off-Road Equipment	Unpaved Road Dust
Food and Agricultural Processing	Recreational Boats	Cooking
Oil and Gas Production	Light Duty Trucks – LDT2	Off-Road Equipment
Medium Duty Trucks	Food and Agriculture	Chemical Industrial Processes

ATTAINMENT DESIGNATIONS AND STATUS

The ARB and the federal EPA have established criteria air pollution standards in an effort to protect human health and welfare. Geographic areas are deemed "attainment" if these standards are met or “nonattainment” if they are not met. Nonattainment status is classified by the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious.

At the federal level, the District is currently designated as serious nonattainment for the 8-hour

ozone standard, attainment for PM10 and nonattainment for PM2.5. A new finding of "extreme" nonattainment with the 8-hour ozone standard is currently pending, and is expected to be approved by the federal EPA. At the state level, the District is designated as nonattainment for the 1-hour ozone, 8-hour ozone, PM10, and PM2.5 standards. Current state and federal designations in the SJVAB and the respective attainment status for each criteria pollutant are shown in **Table A-2**.

Table A-2
San Joaquin Valley Air Basin Attainment Status

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – One hour	No federal standard[1]	Nonattainment/Severe
Ozone – Eight hour	Nonattainment/Serious[2]	Nonattainment
PM10	Attainment[3]	Nonattainment
PM2.5	Nonattainment[4]	Nonattainment
CO – Kern (SJVAB portion)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide – Kern (SJVAB portion)	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: San Joaquin Valley Air Control District Website, May 2010

[1] Effective June 15, 2005, the US EPA revoked in the federal 1-hour ozone standard, including associated designations and classifications. However, EPA had previously classified the SJVAB as extreme nonattainment for this standard. Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to the SJVAB.

[2] On April 30, 2007 the Governing Board of the San Joaquin Valley Air Pollution Control District voted to request EPA to reclassify the San Joaquin Valley Air Basin as extreme nonattainment for the federal 8-hour ozone standards. The California Air Resources Board, on June 14, 2007, approved this request. This request must be forwarded to EPA by the California Air Resources Board and would become effective upon EPA final rulemaking after a notice and comment process; it is not yet in effect.

[3] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.

[4] The Valley is designated nonattainment for the 1997 federal PM2.5 standards. EPA released final designations for the 2006 PM2.5 standards in December 2008 (effective 2009), designating the Valley as nonattainment for the 2006 PM2.5 standards.

ITEM 2: LOCAL, DISTRICT, STATE, AND FEDERAL POLICIES, PROGRAMS, AND REGULATIONS

All levels of government have some responsibility for protecting air quality. This section outlines the responsibilities of federal, state, regional, and local government agencies in air quality matters and explains how they interact.

FEDERAL

At the federal level, the Environmental Protection Agency (EPA) has been charged with implementing national air quality programs which are primarily drawn from the federal Clean Air Act (CAA) that was passed into law in 1963 and has been subsequently amended in 1970, 1977 and 1990.

The EPA deals with global, international, national, and interstate air pollution issues. Their primary role at the state level is one of oversight of state air quality programs. The EPA sets federal standards for vehicle and stationary sources and provides research and guidance in air pollution programs.

The CAA requires the EPA to set National Ambient Air Quality Standards (NAAQS) for several problem air pollutants on the basis of human health and welfare criteria. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare (e.g., crops, forests, visibility, etc.). Primary NAAQS have been established for the following air pollutants:

- carbon monoxide (CO)
- ozone (0_3)
- respirable particulate matter (PM10)
- fine particulate matter (PM2.5)
- nitrogen dioxide (NO_2)
- sulfur dioxide (SO_2)
- lead (Pb)

The primary NAAQS standards are intended to protect persons most susceptible to respiratory distress, such as people suffering from asthma or other illness, the elderly, very young children, or others engaged in strenuous work or exercise.

In addition to the federal NAAQS, the CAA requires individual states to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA; however, states can establish their own standards provided the state standards are at least as stringent as the NAAQS. Therefore, California has established the California Ambient Air Quality Standards (CAAQS).

Additionally, the federal CAA act requires areas with air quality in violation of the (NAAQS) to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains strategies and control measures that states, including California, will use to achieve and maintain the NAAQS. The SIP is meant to be a living document that may be amended periodically to incorporate additional control measures and to reflect the latest emissions inventories, planning documents, rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA is required to review all SIPs to determine if they conform to the federal CAA amendments and will achieve air quality goals when implemented. If the EPA determines that a SIP is inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and impose additional control measures.

In addition to setting health-based standards for air pollutants, the EPA also oversees state and local actions to improve air quality. The following list provides a brief explanation of important regulations set forth by EPA:

Federal Clean Air Act (CAA)

- Requires air quality plans to include measures necessary to achieve NAAQS.
- Requires all plans, programs, and projects that require federal approval, including transportation plans, to conform to air quality plans.
- Requires sanctions if all feasible measures are not expeditiously adopted.

Intermodal Surface Transportation Efficiency Act (ISTEA)

- Requires transportation projects to not impact the ability to attain air quality standards.
- Requires demonstration of expeditious implementation of Transportation Control Measures (TCMs).

Federal Transportation Funding Reauthorization

- Provides funding for transportation projects that enhance air quality (e.g. Congestion Mitigation Air Quality (CMAQ), Transportation Enhancement, and Bicycle and Pedestrian Funding).
- Provides funding source for expeditious implementation of TCMs included in air quality plans.

STATE

States are required to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. States may also establish their own standards, provided the state standards are at least as stringent as the NAAQS. The California Legislature established the California Air Resources Board (ARB) in 1967. The ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988 (CCAA).

Through the CCAA, California has established a planning framework for attainment of the California Ambient Air Quality Standards (CAAQS). The CAAQS classifies non-attainment areas as moderate, serious, severe and extreme based on the severity of the violation of the state ambient air quality standards. For each class, the CCAA specifies air quality management strategies that must be adopted. For all non-attainment categories, attainment plans are required to demonstrate 5% per year reduction in nonattainment air pollutants or their precursors over a 3 year period.

Other ARB duties include monitoring air quality in conjunction with air monitoring networks maintained by air pollution control districts (APCDs) and air quality management districts (AQMDs), establishing CAAQS, setting emission standards for new motor vehicles, and reviewing district input for the SIPs. The SIP consists of the emissions standards for vehicular sources set by the ARB as well as attainment plans adopted by the APCD or AQMD and approved by the ARB.

The State of California, through the ARB and Bureau of Automotive Repair, develops programs to reduce pollution from vehicles and consumer products. The following list provides a brief explanation of important regulations set forth by the State of California:

California Clean Air Act (CCAA)

- Requires all feasible control measures, including transportation control measures, to reduce emissions.
- Provides for indirect source programs in attainment plans.
- Contains targets for emission reductions, vehicle miles traveled, and average vehicle ridership.

AB (Assembly Bill) 170

- In adding Section 65302.1 to the Government Code, requires cities and counties in the Valley to incorporate strategies to improve air quality in their general planning efforts.

SB (Senate Bill) 709:

- Adds Chapter 5.7 to Part 3 of Division 26 of the Health and Safety Code, giving the District more responsibility in terms of permitting, fee implementation, and agricultural assistance, but also gives the District the authority to require the use of best available control technology for existing sources, promote cleaner-burning alternative fuels, and encourage and facilitate ridesharing.
- Adds Section 9250.16 to the Vehicle Code to allow the District to adopt a surcharge on motor vehicle registration fees in counties within the District.

California Government Code Section 65089:

- Requires trip reduction and travel demand management in Congestion Management Programs.

REGIONAL

Because air pollution does not respect political boundaries, the State has taken a regional approach to managing air quality problems. As a result of this regional policy, the San Joaquin Valley Air Pollution Control District (District) was established in 1991 and consists of the 8 southernmost counties in the San Joaquin Valley, with the exception of eastern Kern County which is in the Mojave Air District Basin.

With the passage of the CCAA, air districts were no longer just responsible for stationary sources of pollution; they were also required to implement transportation control measures and adopt an indirect source review control program to reduce mobile source emissions. To that end, the District entered into a memorandum of understanding with the transportation planning agencies in 1992 to ensure a coordinated approach in the development and implementation of transportation plans throughout the Valley.

The District develops plans and implements control measures in an effort to advance Valley attainment of CAAQS and NAAQS. The District has developed plans to attain state and federal standards for ozone and particulate matter. The District's air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control methods have worked, and to show how air pollution will be reduced. The plans also use computer modeling to estimate future levels of pollution and make sure that the Valley will meet air quality goals on time. The District Governing Board approved three major plans in 2007-2008.

2007 Ozone Plan

- The District approved the 2007 Ozone Plan on April 30, 2007. This plan included an indepth analysis of all possible control measures and projected that the Valley will achieve the 8-hour ozone standard (as set by EPA in 1997) for all areas of the SJVAB no later than 2023.
- This plan went above and beyond minimum legal requirements by including a "Fast Track" control strategy. Through Fast Track, new strategies produce real reductions (even though they can not be legally counted in the plan at this time) and will clean the air before the deadline.
- The ARB approved the 2007 Ozone Plan on June 14, 2007.

2007 PM10 Plan

- The District has compiled a series of PM10 Plans, with the first one in 1991. Based on PM10 measurements from 2003-2006, EPA found that the SJVAB had reached the federal PM10 standard.
- The District's 2007 PM10 Maintenance Plan and Request for Redesignation, approved on September 21, 2007, assures that the Valley will continue to meet the PM10 standard and requests that EPA formally redesignate, or label, the Valley to attainment status. On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.

2008 PM2.5 Plan

- The District approved the 2008 PM2.5 Plan on April 30, 2008. Building upon the strategy used in the 2007 Ozone Plan, the District agreed to additional control measures to reduce directly produced PM2.5. The 2008 PM2.5 Plan estimates that the SJVAB will reach the PM2.5 standard (as set by EPA in 1997) in 2014.
- The ARB approved the Plan on May 22, 2008, and the plan has been submitted to EPA.

LOCAL

Local government's responsibility for air quality increased significantly with the passage of the CCAA and the federal CAA amendments. Local government's responsibilities for air quality are found in four (4) areas: (1) land use planning; (2) reviewing and mitigating the environmental impacts of development projects; (3) developing and maintaining the transportation

infrastructure in the community, including transit systems; (4) implementing local air quality programs such as commuter-based trip reduction and rideshare.

Land Use – State law places the responsibility for land use planning in the hands of city and local governments. The city uses the General Plan, Zoning Ordinance, Subdivision Ordinance and Building Codes to ensure that development is done in such a way to limit a project's impact on air quality.

CEQA Review – The California Environmental Quality Act (CEQA) was enacted to inform decision makers and the public about potential impacts to the environment, identify ways to avoid or reduce environmental damage and if necessary propose changes to projects. The local planning agency is responsible for administering CEQA and therefore has the responsibility to determine what if any impacts could result from a project and develop mitigation measures to reduce any adverse impacts the project may have on the environment.

The District has prepared three guidance documents to aid agencies in performing environmental reviews. The documents are briefly described below:

- ***Air Quality Guidelines for General Plans (AQGGP)*** – The AQGGP is a guidance and resource document for cities and counties to use to address air quality in their general plans. The AQGGP includes goals, policies, and programs to reduce vehicle trips, reduce miles travelled, and improve air quality. The AQGGP can be found on the District's website.

- ***Guideline for Assessing and Mitigating Air Quality Impacts (GAMAQI)*** – The GAMAQI is an advisory document that provides Lead Agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The document includes a discussion of the District's role in the CEQA process, identifies actions that can be taken by land use agencies to reduce air quality impacts, and the District's thresholds of significance. The document contains information for use in air quality assessments, such as air quality data, regulatory setting, climate, topography, etc. The GAMAQI can be found on the District's website.

- ***Environmental Review Guidelines (ERG) –*** The ERG fulfills CEQA requirements for agencies to adopt procedures and guidelines for implementing CEQA. The document is intended to guide District staff in carrying out CEQA and to assure the public that environmental impacts related to District actions are thoroughly and consistently addressed. The ERG can be found on the District's website.

Transportation Infrastructure – The federal CAA amendments require transportation plans to conform to the air quality goals of the SIP. This means that states must assure that transportation programs do not undermine the attainment of air quality standards. The

Regional Transportation Planning Agencies are responsible for making the conformity finding. The District's role in this process is one of consultation.

Local agencies, regional planning agencies, the California Department of Transportation and the federal Department of Transportation need to work together due to the multiple levels of funding. It is through this comprehensive approach to development of transportation infrastructure that many adverse impacts to air quality can be avoided by ensuring that the transportation network is built on a regional level.

Local Air Quality Programs – The CCAA allows air districts to delegate the implementation of transportation control measures to any local agency provided the local agency submits an implementation plan to the district for approval and the agency must adopt and implement measures at least as stringent as those found in the District's plan and the district must adopt procedures for reviewing the performance of the local agency in implementing the measures. Because of the requirements stated above, most agencies defer adopting their own implementation plan and rely on the District's plan.