

---

## **Executive Summary**

This page intentionally blank.

## **Executive Summary**

The San Joaquin Valley's severe air-quality problems present a unique opportunity for the Valley to shine. Building on our past efforts, we can take the Valley to a place where our collective ingenuity and hard work on air quality will be a source of pride for all Valley residents. Despite uniquely difficult geographical and meteorological conditions, the Valley has a history of success when battling air-quality challenges. The *2007 Ozone Plan* is a continuation of the San Joaquin Valley Air Pollution Control District's (District) mission to improve the air quality in the San Joaquin Valley.

### ***Plan prepared with extensive public input***

The *2007 Ozone Plan* was developed with numerous opportunities for the general public, environmental and community advocacy groups, and industry representatives to offer critique and suggestions. In the summer of 2006, the District held a series of six Town Hall meetings throughout the Valley in Bakersfield, Delano, Fresno, Huron, Modesto, and Stockton. About 300 participants (many of whom took advantage of the Spanish translation made available) attended these meetings. After District staff outlined the Valley's air quality progress and challenges, participants were invited to give verbal comments. Written comments were also received over the weeks following the Town Hall meetings. These comments are summarized in Appendix G of this plan.

The District held public workshops on the Draft *2007 Ozone Plan* on October 17, 2006 and on February 8, 2007. Verbal comments were received during the workshop, and written comments were accepted during specified periods after the workshops. Workshop comments and responses are summarized in Appendix L, and responses have also been incorporated into Appendix I as well as other portions of this plan.

Subsequent to the Town Hall meetings and the public workshop, the District staff held a number of meetings with various environmental organizations and business representatives to discuss various components of the plan and to solicit further suggestions for control strategies.

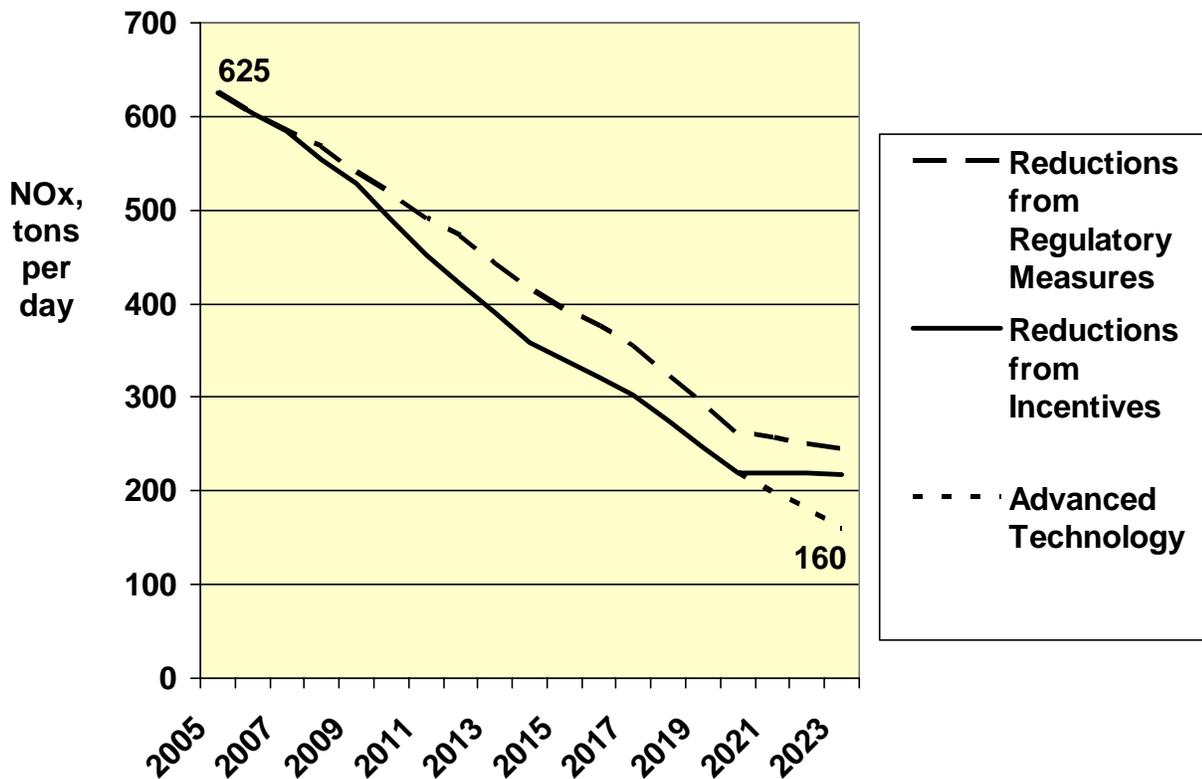
In considering public comments, reviewing plans and control measures from other air districts, and completing an exhaustive analysis of all sources of smog-forming emissions in the San Joaquin Valley, the District has left no stone unturned in developing this plan. There will be future opportunities for public involvement. A final, noticed 30-day public comment period was held from March 8, 2007 through April 6, 2007. The public hearing before the District Governing Board to consider the *2007 Ozone Plan* is scheduled for April 30, 2007. Once the plan is adopted, the public will have additional opportunities for involvement as the individual strategies, programs, and rules in the plan are developed over the coming years.

**What will this plan do?**

This plan contains a comprehensive and exhaustive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the Valley. Additionally, this plan calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution, and a significant increase in state and federal funding for incentive-based measures to create adequate reductions in emissions to bring the entire Valley into attainment with the federal ozone standard.

The proposed plan calls for a 75% reduction in ozone-forming oxides of nitrogen (NOx) emissions. These reductions come on the heels of past successful efforts in the Valley that have already reduced ozone precursor emission by nearly 50%. As illustrated in Figure ES-1 below, regulatory measures for mobile and stationary sources will reduce NOx emissions by 382 tons per day (61%) by 2023. The remaining 14% would come from incentives and the deployment of advanced technologies. The incentive-based measures contained in this plan generate NOx reductions of 50 tons per day in 2012, 56 tons per day in 2015, 41 tons per day in 2020, and 26 tons per day in 2023.

**Figure ES-1 San Joaquin Valley NOx Emissions, 2005-2023**



In addition to the above-mentioned reductions in NO<sub>x</sub> emissions, full implementation of this plan will reduce Volatile Organic Compound (VOC) emissions by 111 tons per day through regulatory measures, which equates to a 25% reduction.

Under this plan, all proposed local measures will be adopted by the San Joaquin Valley Air Pollution Control District before 2012. Additional measures requiring technology advancement or new incentive funding will also be adopted and implemented as expeditiously as they become available. As this plan is implemented, the ambient ozone concentrations will decrease dramatically over time in all areas of the Valley. All Valley residents will experience cleaner air quickly and continually. By 2015 over 50% of the Valley's population will reside in areas meeting the federal ozone standard. The segment of Valley population residing in areas meeting the federal ozone standard will increase to 90% by 2020.

Although ozone concentrations will drop measurably throughout the entire Valley, areas east of Arvin and in Northwest Fresno will require additional reductions in emissions to meet the federal ozone standard. These additional reductions in emissions require further advancements in technology and are expected to occur after 2020 but no later than 2023.

### ***Guiding Principles***

The degree of difficulty and the enormity of the challenge faced by the Valley in meeting the new federal ambient air quality standards are unmatched by any other region in the nation. This plan is designed to gain state and federal approval, comply with all applicable laws and regulations, and bring the entire Valley into attainment with the federal health-based ozone standard. For this reason, the District has adhered to the following guiding principles in formulating this Plan:

1. With public health as our number one priority, meet the federal ambient air quality standards as expeditiously as practicable.
2. Recognize that the Valley's economic vitality and prosperity are essential to having the resources necessary to achieve our public health goals.
3. Recognize that no "silver bullet" exists – every sector, from the public through all levels of government, business, and industry, must reduce emissions.
4. Achieve emission reductions in the most cost-effective way possible to get the "biggest bang for the buck."
5. When scheduling regulatory actions such as rules and strategies, allow adequate time for full public participation.

6. Consider total impact on businesses; allow reasonable time for implementation of current and future rules.
7. Give precedence to nitrogen oxides (NOx) emissions reductions to assist with attainment of the federal standard for particulate matter (PM). NOx emissions contribute to both ozone and PM formation.
8. Take advantage of imminent new technologies and allow time to get more reductions if needed.
9. Do not let “one-size-fits-all” governmental policies and bureaucracy stand in the way of timely, innovative, and cost-effective emission reductions.
10. Use sound science in assessing public health impacts, the magnitude of emissions from various source categories, and the availability, effectiveness, and feasibility of emissions control measures.
11. Do not rely exclusively on the state and federal government to reduce mobile source emissions. Consistent with state and federal laws, find effective and innovative regulatory and incentive measures at the local level to address mobile source emissions.
12. Consider seasonal, episodic, and regional measures to more strategically target limited resources for optimum air quality benefits throughout the Valley.

***Why has this plan been prepared?***

Ozone, the primary ingredient of summertime smog, is a colorless and odorless gas that can be harmful to human health at certain concentrations. To protect public health, the U.S. Environmental Protection Agency (EPA) has established standards for ozone concentrations in ambient – or outdoor – air, as averaged over the course of eight-hour periods. The District’s plan to meet the 8-hour ozone standard is due to the EPA by June 15, 2007. At completion, this plan will meet federal requirements, including those for permitting and controls on major stationary sources of air pollution, demonstrating “reasonable further progress,” and providing contingency provisions. The District is committed to meeting all of the EPA’s requirements for an 8-hour ozone plan, thereby improving air quality for Valley residents. Chapter 2 presents current federal mandates for 8-hour ozone.

As discussed in Chapter 1 and Appendix A, the San Joaquin Valley’s ozone “design values” indicate nonattainment at 17 of the Valley’s 21 monitoring stations. In 2005, the Valley’s highest design value was approximately 35 percent above the federal ozone standard. While this value may be less than those recorded in the South Coast Air Basin or Houston, Texas, the San Joaquin Valley tends to record as many or more days with 8-hour ozone averages above the level of the federal standard (or “exceedance

days”) than the other regions. During the years 2003 through 2005, the San Joaquin Valley recorded an average of 105 exceedance days per year. Because exceedance days are counted at more than 20 monitoring sites covering the 25,000 square miles of the San Joaquin Valley, the Valley-wide exceedance total does not fairly represent the air quality in any one community. In fact, the Valley’s urban populations appear to be exposed to far fewer 8-hour exceedance days than certain downwind rural areas. For example, in 2005, the Valley’s urban monitoring site with the highest number of exceedance days was the Bakersfield Golden State Avenue site, with 33 days over the standard. Typically, however, more exceedance days occur in areas downwind of the Valley’s urban centers. For instance, in 2005, the monitors east of Arvin and in Sequoia Kings Canyon National Park both registered 54 exceedance days, the most in the Valley.

### ***Valley’s challenge is greater than any other region in the nation***

The same characteristics that make the Valley the world’s most fertile agricultural region and a beautiful place to live also create optimal conditions for creating and trapping air pollution. Surrounding mountains, stagnant weather patterns, hot summers, and foggy winters make the formation of air pollution in the Valley inevitable and prevent air pollutants from dispersing. The Valley air basin has a natural propensity to form and retain ozone. Figure ES-2 below provides a graphical illustration of how pollution is trapped within the Valley during winter months. Due to temperature inversions, the same phenomenon occurs during summer months and the rest of the ozone season.

**Figure ES-2 Unique Valley Conditions Trap Air Pollution**



Due to Valley's unique geography and meteorology, no other region in California faces the enormous degree of difficulty that the Valley faces in meeting the ambient air quality standards for ozone and particulates. This is illustrated by the fact that the San Joaquin Valley has far fewer pollutant emissions per square mile ("emission density") than other regions in California that have equivalent or even better air quality (as shown in Figure ES-3). The Valley has reduced its emissions at the same rate or better than other areas in California. Nonetheless, despite the Bay Area having six times more emissions per square mile than the Valley, that region enjoys good air quality most of the time because of the sea breezes that disperse its emissions. Los Angeles, which also has more favorable meteorology and topography, has a pollution density 10 times greater than ours, yet their air quality is only marginally worse.

Although ozone concentrations and the frequency of exceeding the federal ozone standards in Southern California are somewhat higher than those for the Valley, that region has experienced a more dramatic reduction in ozone levels since 1990. This is despite the fact that (as shown in Figure ES-4) the total NO<sub>x</sub> emissions in the Valley have been reduced at a faster rate than those in Southern California.

**Figure ES-3 VOC + NO<sub>x</sub> per Square Mile in the SJV and Other Areas in California**  
(Based on ARB's 2006 Almanac)

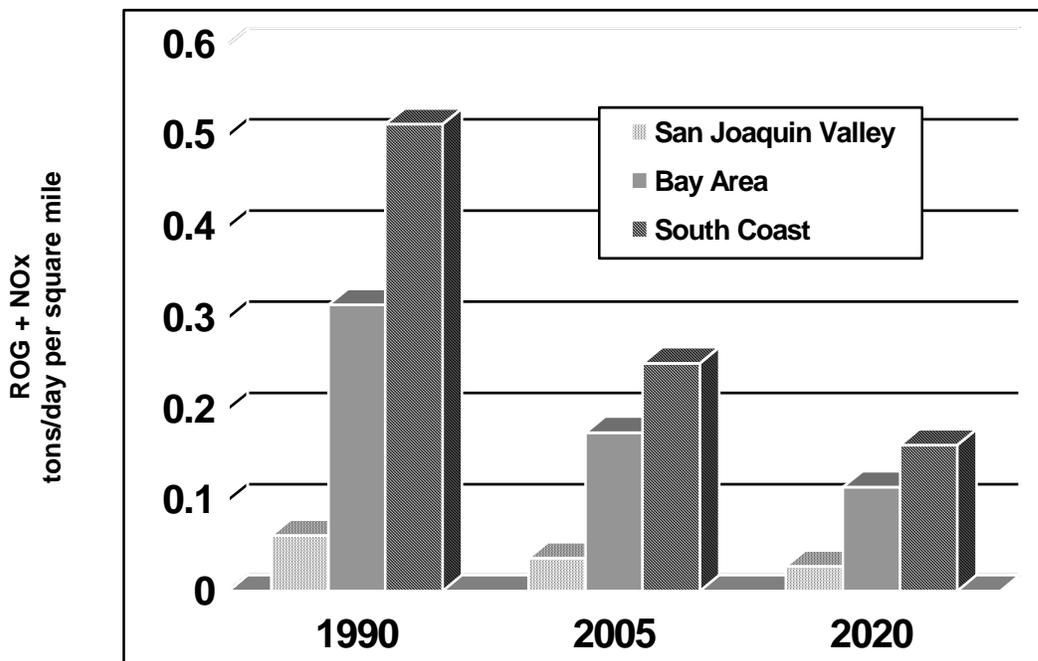
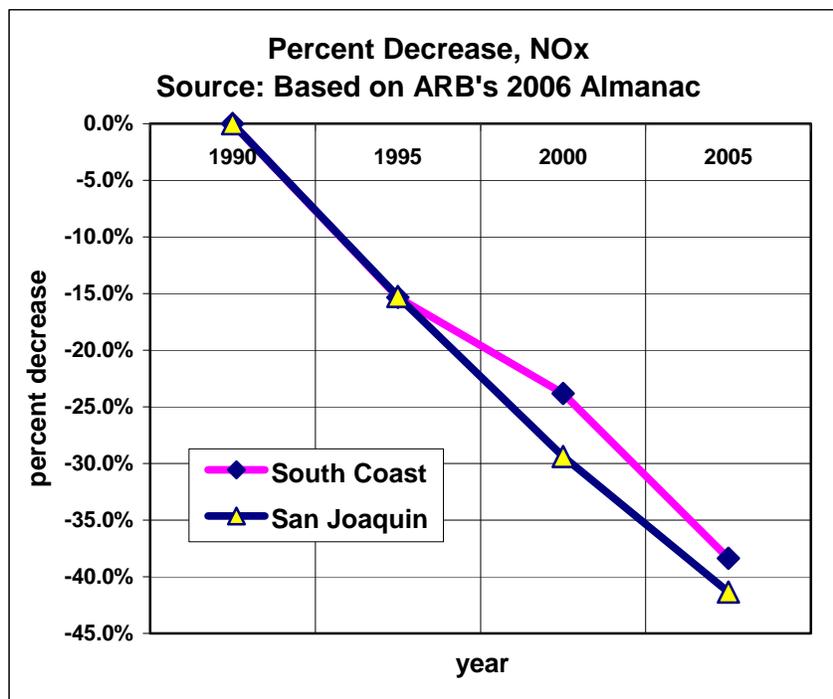


Figure ES-4 Past Efforts to Reduce Air Pollution by Region



### ***Building on past efforts to achieve cleaner air***

Our past successes give us confidence that similar measures will be effective in the future. Given the enormity of the problem and the added challenge with the 8-hour versus 1-hour standard, we need to expand beyond past measures. The District has a history of success in reducing the two types of smog-forming chemicals -- NOx and volatile organic compounds (VOCs) -- as well as significantly reducing particulate emissions. The effectiveness of the District's groundbreaking rules, such as Indirect Source Review, Conservation Management Practices, wine fermentation, and residential fireplaces, is evidenced by improvements in the Valley's air quality. Based on the ARB's 2006 Almanac, from 1990 through 2005, Valley-wide NOx emissions have decreased by 42 percent and VOC emissions have decreased by 37 percent. These reductions represent an impressive accomplishment, especially in light of the 37-percent increase in population in the San Joaquin Valley over the same time period. These emissions reductions are, in part, the result of the 500-plus rules and rule amendments the District has adopted since its formation in 1992, expenditure of over \$100 million in incentive grants, plus state and federal measures for reducing mobile source emissions.

As a result of the significant emissions reductions, air quality has improved in the Valley. We have reached attainment for PM10. With regard to ozone, design values at every monitoring site in the Valley are lower in 2005 than in 2003, indicating progress towards meeting the 8-hour standard. Also, each site in the Valley is experiencing fewer days with ozone concentrations above the level of the 8-hour ozone standard, reducing the public exposure to harmful air. Even more progress had been made toward the federal 1-hour ozone standard, which, though now revoked, was the focus of the District's previous ozone plan. The District's progress, ambient air quality data, and emissions inventories are discussed in further detail in Chapter 1 and associated appendices.

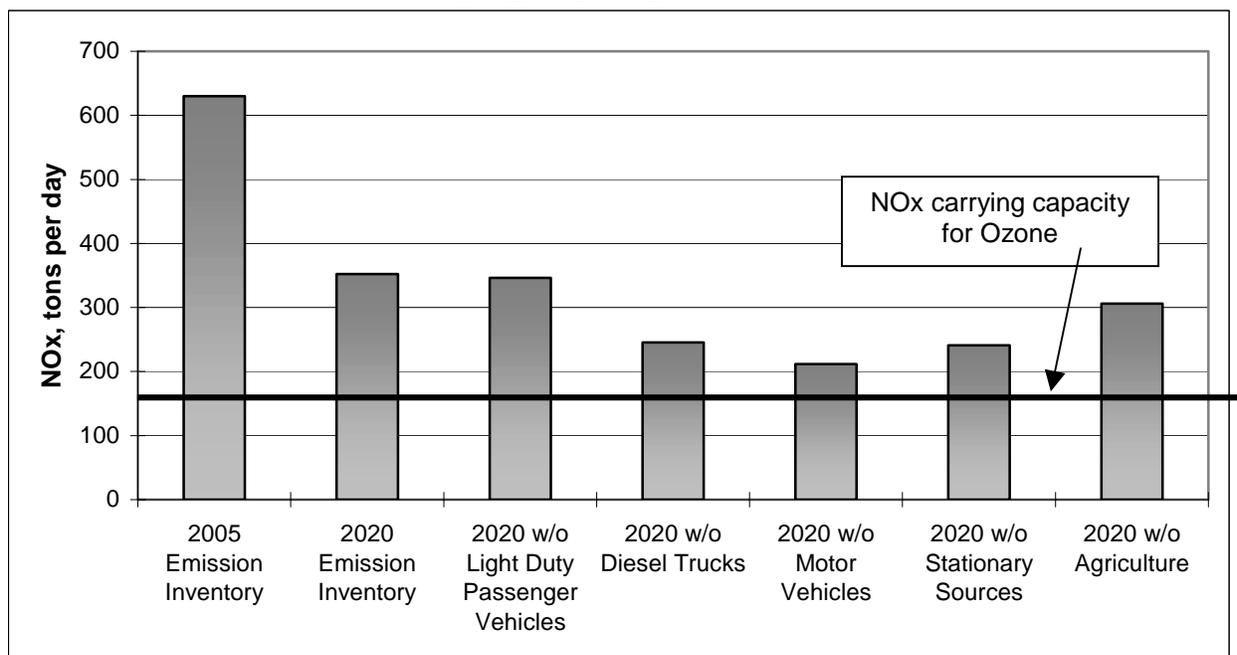
### ***What amounts of additional reductions are needed?***

Although the Valley has fewer emissions per square mile than other areas, significant emission reductions will be needed to meet the 8-hour ozone standard. To predict ozone concentrations in future years, air-quality models are used to simulate the formation, transport, and removal of ozone from the lower atmosphere. The models are used to develop an emission-control strategy to meet the 8-hour ozone standard. For this ozone plan, computer models predict ozone levels based on various degrees of emission reductions. Modeling results are then used to develop a corresponding control strategy. The model suggests that the San Joaquin Valley needs NOx emissions to be no higher than about 160 tons per day to meet the 8-hour ozone standard. As the Valley's NOx emissions in 2005 were approximately 624 tons per day, attainment of the ozone standard requires a Valley-wide reduction of approximately 75% from the 2005 level. VOC emission reductions are less critical for attainment, but serve to expedite air quality improvements from current levels in the less impacted areas. A detailed discussion of the impact on ambient ozone levels from NOx and VOC reduction strategies is presented in Chapter 3.

### ***How difficult is it to reduce NOx emissions by another 75%?***

As stated above, the latest modeling indicates that bringing the entire Valley into attainment will require a 75% reduction in NOx emissions. With our natural low capacity for pollution, attaining the tough, federal health-based standards in the timelines required by federal law will be a daunting task. To put this in perspective, we would not meet this goal if we in the Valley undertook any one of the following actions: shutting down all businesses; shutting down agriculture; removing all truck traffic; or removing all passenger cars (see Figure ES-5). Of course, these are extreme and unrealistic measures offered only to illustrate the magnitude of our problem. Our ultimate strategy will require investment and participation from all sectors.

**Figure ES-5 How Difficult is Achieving the Valley's NO<sub>x</sub> Carrying Capacity for Ozone?**



***How do legal jurisdictional boundaries assigned to various governmental entities affect the design and implementation of this plan?***

The US EPA is responsible for regulating emissions from locomotives, aircraft, heavy-duty trucks used in interstate commerce, and other sources, such as off-road engines that are either exempt from state control or best regulated at the national level. Under state authority, ARB is responsible for regulating on-road motor vehicles, some off-road sources, and consumer products, such as spray paint, household cleaners and hairspray. ARB also establishes fuel specifications for California. Local governments, such as cities and counties, can influence air quality by addressing emissions from vehicles in their land-use and transportation planning processes and projects. For example, reducing urban sprawl and increasing street connectivity reduce emissions and help improve air quality.

The District has primary responsibility for regulating stationary sources, such as power plants and manufacturing facilities, as well as some area sources, such as agricultural operations. However, state and federal laws preempt the District's authority to directly or indirectly regulate or establish tail-pipe emission standards for mobile sources. Nonetheless, consistent with our guiding principle number 11 above, this plan contains local regulatory and incentive-based measures aimed at reducing the use or providing for mitigation of emissions from mobile sources.

In spite of the lack of regulatory jurisdiction as described above, the District is still charged with developing and adopting this plan, as well as with the ongoing tracking

and reporting on the progress called for in this plan. The plan includes local, state, and federal measures necessary to reach attainment.

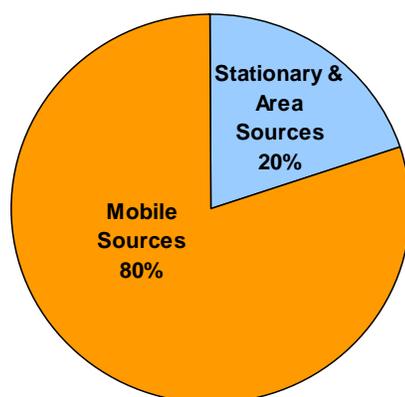
### ***What is the strategy for attainment?***

A successful and comprehensive strategy to bring the entire Valley into attainment with the 8-hour ozone standard will require effective partnerships with the local, state, and federal agencies to address all sources of air pollution. This plan has been prepared in close coordination with the state Air Resources Board (ARB) and in consultation with the Region IX of the federal Environmental Protection Agency (EPA). The District and ARB have a long history of working effectively together in advancing the science of air pollution, and jointly implementing a number of regulatory and incentive-based measures. The degree of difficulty that the Valley faces will require a further strengthening of the local, state, and federal partnerships to address major sources of pollution in the Valley. This is true especially in light of the fact that mobile sources, the largest contributors to the Valley's ozone and particulate problems, are primarily under the jurisdiction of the state and federal governments.

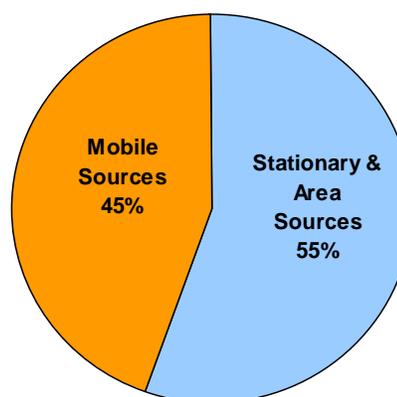
Reducing mobile source emissions is key to the success of this Plan. Mobile source emissions, as illustrated in Figure ES-6, make up the overwhelming majority of NOx emissions in the Valley in 2005. Furthermore, emissions from stationary sources, under the District's jurisdiction, have already been controlled through several generations of strict regulations.

**Figure ES-6 Ozone Precursors by Major Category<sup>1</sup>**  
(Based on 2005 Summer Emissions Inventories, O3 SIP (v1.06\_RF980)<sup>2</sup>)

#### **Oxides of Nitrogen (NOx)**



#### **Volatile Organic Compounds**



<sup>1</sup> Please note that Mobile Sources includes on-road and off-road sources. For NOx, 67% of the total mobile source emissions in 2005 come from on-road sources, and 33% of the total mobile source emissions come from other mobile sources. For VOC, 57% of the total mobile source emissions come from on-road sources, and 43% of the total mobile source emissions comes from other mobile sources.

<sup>2</sup> With NOx adjustment in heavy heavy duty diesel trucks.

The emission control strategy of the *2007 Ozone Plan* consists of four main facets:

- **District Regulatory Control Measures for Stationary Sources:** Stationary sources in the District are already subject to some of the toughest regulatory requirements in the nation. The enormity of air quality problems, however, requires further reductions from these sources through feasible control measures. After exploring all possible measures to enhance stationary controls, under this plan, the District will promulgate approximately 19 new and amended rules to control NOx and VOC emissions, and 20 additional mid-term measures based upon the results of Feasibility Studies. Included in these control measures is a regulation requiring Valley employers to establish ridesharing programs. For additional details on stationary control measures, please refer to Chapter 6 and Appendix I.
- **Incentive-based Measures:** Even with an aggressive regulatory component as proposed in this plan, regulations alone cannot bring about all the reductions that are necessary to reach attainment. Stationary sources are already heavily controlled, and more stringent tail-pipe standards for new vehicles will not produce reductions until the old engines are replaced with cleaner new engines. With incentives, the full benefit of the new engine standards will be accelerated by several years. Incentive grants can also allow for adoption of cleaner technologies that may otherwise be unaffordable.

As this plan is implemented, over 50% of the Valley's population will see attainment of the 8-hour ozone standard in 2015, with over 90% reaching attainment in 2020. Without the incentive funds identified in this plan, these figures will be reduced to 35% in 2015 and 65% in 2020. Therefore, without the incentive measures proposed in this plan, attainment of the ozone standard will be delayed to after 2020 for over 1,000,000 Valley residents. Furthermore, without the proposed incentives, the Valley may not reach attainment of the PM 2.5 federal standard by 2015 as currently mandated by the federal Clean Air Act.

The amount of state and local funds currently available for incentive-based programs is approximately \$40 million per year. The primary sources for these funds are the expected revenues from the District's Indirect Source Review rule, voluntary development mitigation agreements, local DMV surcharge fees, and the state's Carl Moyer program. This plan calls for a significant increase in incentives to bring a large segment of the Valley population into attainment earlier than otherwise possible and to allow for the application of advanced technologies that will be required for the bringing the entire Valley into attainment. To reach this goal, the Valley will need an average of \$188 million in incentive funding annually until attainment is reached. Chapter 7 provides a detailed action plan for securing and expending the proposed incentive funds. As binding commitments (e.g., state and/or federal legislation) securing the proposed funding levels for incentive measures are put in place, the magnitude of the black box will decrease.

- **Innovative Strategies and Programs:** As mentioned earlier, the enormity of our challenge requires strategies that go beyond the traditional approaches and can better target our limited resources. Consistent with our guiding principle number 3, this plan calls for innovative strategies and programs that will involve wide-ranging public and private participation. Furthermore, consistent with guiding principle number 11, the District will not solely rely on the state and federal government to address mobile source emissions. To the extent permissible by the state and federal laws, under this plan the District will enact innovative measures to reduce mobile and area source emissions.

The list of these innovative programs includes the following: Green Contracting, Expanded Spare - the - Air, Employer-based Trip Reduction, Heat Island Mitigation, Alternative Energy Production, Energy Conservation, Enhanced Indirect Source Review, Episodic and Regionally-focused Control Measures, and Advanced Emission Reduction Options (AERO). Please refer to Chapter 8 for additional details on these programs.

- **Local, State, and Federal Controls:** With mobile source emissions constituting 80% of the Valley's total NOx emissions, the bulk of the necessary emissions reductions must come from state and federal control measures for mobile sources. The District will work diligently with the state and federal government, through the regulatory and legislative process, to ensure adequate controls on mobile sources are promulgated and implemented. These measures will include more stringent tail-pipe standards for new on-road and off-road mobile sources, and regulations designed to accelerate the deployment of newer, cleaner engines. The District will also work to expedite emission reductions from the mobile sources through District-administered incentive programs.

Mobile source emissions will be reduced by implementing land-use and transportation policies that reduce vehicle miles traveled. To reach this goal, the District will work with the local lands-use and transportation agencies, and will provide guidance for air-friendly growth and community designs.

Other sources requiring state measures are consumer products, pesticides, and fuel formulation. For more details on local, state, and federal strategies, please refer to Chapter 9.

### ***Why is an "Extreme" attainment plan required?***

The ultimate goal of this plan is to bring the entire Valley into attainment with the federal health-based 8-hour ozone standard. The Valley's classification establishes the Valley's attainment date of the ozone standard.

Under the federal Clean Air Act and its implementing regulations, the region's non-attainment designation is determined by measuring air quality during the worst days at the worst spots in the Valley. Although over 90% of the Valley will be in attainment by 2020, since reductions from technologies that are not yet available are needed for areas east of Arvin and in northwest Fresno to reach attainment, the Valley is left with no choice but to seek an "Extreme" nonattainment classification.

To bring the entire Valley into attainment, the summer-day NOx emissions must be reduced to 160 tons per day. Reducing VOC emissions, although useful for some early reductions in ozone concentrations in certain areas, will not change the fact that the summer-day NOx emissions must be reduced to 160 tons per day. In 2005, the Valley's NOx emissions were at approximately 624 tons per day. With the stationary and mobile source control measures proposed in this plan and with the reductions in emissions that result from the natural turnover of older and dirtier vehicles and engines, the Valley's NOx emissions will be reduced to the following levels:

- 2012 NOx emissions = 459 tons per day (26% reduction since 2005)
- 2020 NOx emissions = 259 tons per day (58% reduction since 2005)

With the above reductions, the gaps for attainment will be as follows:

- 2012 attainment gap = 299 tons per day of NOx
- 2020 attainment gap = 99 tons per day of NOx

Consistent with our guiding principle number 1, the District's position has been that an "Extreme" designation will only be sought if no other option is possible. In pursuit of the earliest possible attainment date, the District has examined all regulatory and incentive-based options and has reached the following conclusions:

- Even if all financial and logistical constraints were to be disregarded, it is not possible to reduce NOx emissions by sufficient quantities to fill the attainment gaps in 2012 or 2020. Based on our estimates, assuming no constraints, if all light, medium, and heavy duty vehicles, locomotives, and all off-road engines are replaced with the latest and cleanest available units, NOx emissions could be reduced by another 144 tons per day in 2012, and 77 tons per day in 2020. The cost would well over \$60 billion and the reductions well short of the attainment gap. Please see Chapter 7 for further details and the estimates for the "no-constraint" emission reductions.
- \$188 million per year is an ambitious but a reasonable amount of incentive funding to seek. At this time, the District is assured of approximately \$40 million per year from 2007 through 2015, and approximately \$25 million per year thereafter. This estimate reflects projected revenues from the District's Indirect Source Review Rule mitigation fees, local DMV surcharges, and the Moyer program. Based on our conversations with and commitments from California's U.S. Senators and the Valley's entire congressional delegation we are looking for

\$100 million per year in incentive funds from federal government. The remaining \$60 million per year will be sought from the state of California.

If we are able to secure the above funding, we can generate additional reductions totaling 48 tons per day in 2012; 56 tons per day in 2015; and 41 tons per day in 2020. These reductions will shrink the attainment gap and will bring larger segments of the Valley into attainment before 2015 and 2020. However, these reductions will not be sufficient to fully bridge the attainment gap.

Please refer to Chapter 7 for a detailed plan for incentive fund expenditures, projected reductions, and the District's legislative action plan to secure the necessary funding.

- Expected reductions from new funding that is not yet secured cannot be used in an approvable plan to show attainment. Therefore, as long as any portion of the reductions necessary for attainment relies on yet to be secured funding, the District cannot claim attainment in a serious or severe ozone area plan.
- Currently available pollution control technology and the known technology scheduled for future availability cannot produce sufficient reductions to satisfy the Valley's attainment gap. This is the case even if money were no object. Bringing the Valley into attainment will require major advancement in pollution control technology for mobile and stationary sources.

Pursuant to the federal Clean Air Act, section 182(e)(5), the "Extreme" non-attainment classification is the only one that allows for an approvable plan that relies on future advancements in technology. With proposed control measures in this plan, in 2023, 82 tons per day of NO<sub>x</sub> reductions are needed that can only be achieved through the development and application of advanced control technologies that do not yet exist (see Table 11-1). Please refer to Chapter 7 for a detailed plan for incentive fund expenditures and projected reductions.

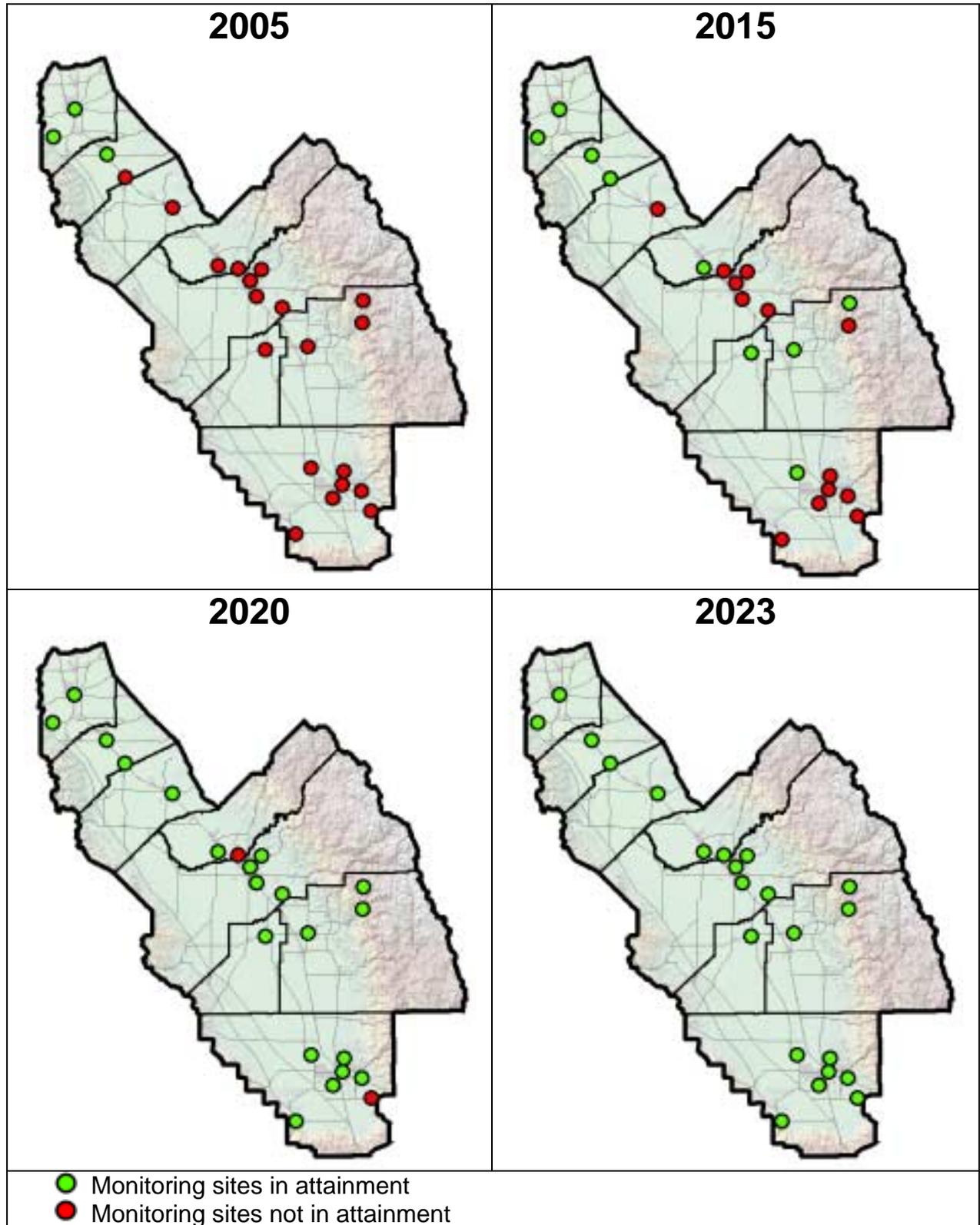
Considering the above conclusions, the Valley has no choice but to step up to an "Extreme" non-attainment classification.

### ***Journey to Attainment***

Several areas of the San Joaquin Valley currently comply with the 8-hour ozone standard, and all areas of the Valley will come into attainment as emissions are reduced pursuant to this plan. All areas of the Valley will see short term improvement in ozone concentrations and will continue to experience cleaner air on an ongoing basis.

Figure ES-7 provides a graphical illustration of the Valley's journey to attainment under this plan. The green dots in Figure ES-7 indicate monitoring sites that have a design value below the level of the 8-hr ozone standard for the year specified. The red dots identify sites whose design values are expected to exceed the 8-hr ozone

Figure ES-7 Journey to Attainment



standard. Figure ES-7 is based on carrying capacities generated through modeling, coupled with the emissions reductions identified in this plan. Because of analytical limitations, the Figure does not adequately reflect the expected reduction in the number of days over the ozone standard or the decline in ozone design values.

### ***Could a different approach ensure earlier attainment?***

The International Sustainable Systems Research Center (ISSRC), a Southern California-based non-profit organization, was tasked by community and environmental organizations under funding from the William and Flora Hewlett Foundation with developing an “alternative SIP” that could show attainment with the 8-hour ozone standard by 2013. ISSRC took on this enormous task without participating in the District’s public plan-development process and without communication with the District staff. ISSRC released their first version of the “Alt SIP” on February 6, 2007, and published a “Revised Alt SIP” on February 19, 2007. Three main strategic elements in the Alt SIP are: operational restrictions; increased funding for incentives; and additional stationary source control measures. Upon close review of the “Alt SIP” proposals, the District found the following:

- Operational restrictions: The “Alt SIP” effectively proposes to prohibit driving, farming, and construction on up to 100 days each year. These restrictions are unenforceable, are beyond District authority, and could cripple the Valley’s economy. The reductions would not achieve the emission levels needed for attainment.
- Incentive funding: The “Alt SIP’s” proposed incentive measures rely on \$450 million per year in unsecured funding and would therefore not be federally approvable in a State Implementation Plan for attainment in 2013. The “Alt SIP’s” expenditure plan is also impractical and would not achieve the proposed reductions.
- Stationary source control measures: Most reductions from the “Alt SIP’s” stationary source measures reflect double-counting. Existing and proposed District measures are more stringent.

While the February 19 version of the “Alt SIP” conceded to achieving only 95% of their own estimate of NO<sub>x</sub> reductions necessary for attainment, the District found that most of the emission reductions proposed in the “Alt SIP” were double-counted or would not be legal for the District to claim or pursue. The “Alt SIP” also concluded that attainment can be achieved by reducing Valleywide emission levels to 195 tons per day of NO<sub>x</sub> and 230 tons per day of VOC. The District found, based on a proper application of photochemical modeling results, that these emission levels would not provide for ozone attainment.

Despite the above shortcomings, the District carefully considered and evaluated all control measures proposed by ISSRC for inclusion in the *2007 Ozone Plan*. Although the District concluded that the “Alt SIP” is not able to achieve attainment, several concepts are viable, and these were added to the *2007 Ozone Plan*.

The “Alt SIP” analysis confirms that there is no more expeditious path to ozone attainment than the path identified by the *2007 Ozone Plan*.

***What additional requirements are triggered by an “Extreme” classification?***

A reclassification to an Extreme for the federal 8-hr ozone air quality standard will trigger additional permitting and pollution control requirements. As noted in Chapter 2, the federal Clean Air Act requires extreme non-attainment areas to define a major source as one whose potential emissions of ozone precursors meets or exceed 10 tons per year. This lower major source threshold will mean more facilities will be required to obtain Title V permits under the Extreme classification. The extreme classification also impacts New Source Review and Reasonably Available Control Technology requirements for major sources. See Chapter 11 for more details on the additional requirements triggered under the extreme classification.

***“Extreme” classification has onerous ramifications. Is not submitting a plan an option?***

Failure to prepare a federally approvable plan, to submit it on time to EPA<sup>3</sup>, and to fully implement its commitments would have major public health, legal, and financial consequences. Regarding public health, Valley residents will continue to be exposed to ozone levels in excess of the health-based federal ambient air quality standard. Adverse health impacts will also result in economic cost to the Valley due to costs associated with health care, absenteeism, and loss of productivity.

Failure to submit a timely and approvable plan and to implement its commitments would also result in two federal sanctions. The first sanction would make it extremely costly for new businesses to locate in the Valley, and for existing businesses to expand, due to 2:1 offset requirements for permitting major sources in the Valley. The second sanction would result in loss of federal highway funds to the Valley estimated at \$250 million per year. The offset sanction applies in an area 18 months after the date on which EPA makes its finding for such an area, and the highway sanctions apply in that area 6 months following application of the offset sanction (59 FR 39832). EPA has discretion to change the sanction sequence. Additionally, the Federal Clean Air Act (Section 110(c)) requires EPA to impose a federal implementation plan (FIP) 24 months after the final rulemaking on a failure to submit or implement a SIP to remedy the deficiencies identified by EPA. A FIP would result in a loss of local control.

---

<sup>3</sup> Nonattainment designations were made in *Air Quality Designations and Classifications for the 8-hour Ozone National Ambient Air Quality Standards* (69 FR 23858-23951), effective June 15, 2004. Section 172(b) of the Clean Air Act requires attainment plans to be submitted within three years of the date of the nonattainment designation. On December 22, 2006, D.C. Circuit court decision vacated the *Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard – Phase 1* (69 FR 23951-24000). However, the deadline for 8-hour ozone plans is apparently unaffected by the vacating of Phase 1 since designations were made in a separate ruling. EPA has requested rehearing on the Phase 1 decision and has urged air districts to move forward on attainment plans and observe the June 15, 2007 deadline.

***Public Accountability***

The District will prepare annual reports to show progress in fulfilling its ozone and PM plan commitments. These reports, which will help ensure public accountability and provide for public assessment of the performance of the local, state, and federal agencies in relation to their responsibilities under this plan, will be made available to the public and will be presented to the Governing Board annually, beginning in 2008. The reports will include ambient air quality data, a summary of rules adopted during the previous year, detailed account of the incentive funding expenditures and resulting reductions in emissions, as well as other pertinent information. Please see Chapter 5 for more details on these annual reports.