

Chapter 9

Local, State, and Federal Controls

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Chapter 9: Local, State, and Federal Controls

9.1 INTRODUCTION

This chapter presents the fourth facet of the District's control strategy: local, state, and federal controls. The eight Councils of Government that serve the San Joaquin Valley have provided the local control information.

9.2 LOCAL COMPONENT: MEASURES TO REDUCE EMISSIONS BY IMPROVING VEHICLE USE

Motor vehicles are a large source of ozone precursor emissions in the San Joaquin Valley. The District is in a partnership with federal, state, and local agencies to combine efforts to reduce the impact of motor vehicles on air quality. This cooperative integration of numerous agencies addresses the difficult challenge of balancing the need to provide increased mobility for the enhancement of the social and economic well being of our valley, with the equally important goal of attaining healthy air quality for all the residents. The District is involved in reducing emissions from motor vehicle use primarily through its Indirect Source Review (ISR) and school bus replacement programs; additional District control options for motor vehicle use (including incentives) are presented in Chapter 7, Chapter 8, and Appendix I in this Plan. Also, ARB controls motor vehicle emissions by establishing motor vehicle emissions standards and motor vehicle fuel formulations; additional ARB measures developed for 8-hr ozone are described in section 9.3 of this Plan.

The San Joaquin Valley has eight federally designated Metropolitan Planning Organizations (MPOs), which represent the eight counties of the San Joaquin Valley Air Basin. Collectively, the San Joaquin Council of Governments, the Stanislaus Council of Governments, the Merced County Association of Governments, the Madera County Transportation Commission, the Council of Fresno County Governments, Kings County Association of Governments, the Tulare County Association of Governments and the Kern Council of Governments work in concert with their numerous cities, public interest groups, the District, state, and federal agencies in order to create regional transportation plans (RTPs). The eight MPOs are also referred to as the Regional Transportation Planning Agencies (RTPAs) for the San Joaquin Valley.

9.2.1 Legislative Requirements

The federal Clean Air Act (CAA) regulates air pollutant emissions from area, stationary, and mobile sources. In addition, the CAA authorizes the EPA to establish NAAQS to protect public health and the environment. The goal of the CAA is to set maximum pollutant standards and direct the states to develop SIPs for achieving and maintaining these standards.

Because emissions from motor vehicles make a significant contribution to air pollution, the SIP establishes an emissions budget for each pollutant for the attainment year, as well as reasonable further progress milestone years. This serves as a regulatory limit for on-road mobile source emissions. As a condition to receive federal transportation funding, transportation plans, programs, and projects are required to meet those emission budgets through strategies that increase the efficiency of the transportation system and reduce motor vehicle use.

Transportation plans and programs within the San Joaquin Valley Air Basin are also required to conform with the air quality plans in the region, as established by the Clean Air Act and reinforced by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFTEA-LU). This act is the foundation for federal surface transportation laws. Transportation conformity is discussed in Section 9.2.3 and in Appendix C of this Plan, which includes supporting documentation for the development of the conformity budgets.

The Valley MPOs have limited legal authority to implement emission reduction measures. However, their status as Regional Transportation Planning Agencies places them in a position to help coordinate and facilitate consensus among their member jurisdictions, which do have authority to implement local measures.

The MPOs and their member jurisdictions have adopted Reasonably Available Control Measures (RACM) affecting motor vehicle use in the Valley. Three sets of RACM have been adopted in the past five years for the following District-adopted air quality plans: (1) The *2002/2005 Amended Rate of Progress Plan for San Joaquin Valley Ozone*; (2) The *Amended 2003 PM10 Plan (as amended on December 20, 2003)*; and (3) The *2004 Extreme Ozone Attainment Demonstration Plan*.¹ Of these, EPA has only approved the measures for the *2003 PM10 Plan* into the SIP.² The transportation RACM for the *2003 PM10 Plan* provide for the reduction of NO_x and direct PM₁₀ emissions for attainment of the PM₁₀ standards by December 31, 2010. Implementation of these measures is underway.

For the *2007 Ozone Plan*, the SJV MPOs drafted the local RACM approach for the 8-hour Ozone Plan. Documentation regarding the proposed implementation of the recommended RACM strategy was transmitted for interagency consultation. A response to comments received was prepared. It is important to note that the NO_x measures developed for the *2003 PM10 Plan* will help attain the federal 8-hour ozone standards; however, since they are already federally approved, they are not included in this plan by reference.

Another local planning effort worth noting is the San Joaquin Valley Regional Blueprint Planning Process. This process will result in a "visioning" plan for the Valley on behalf of the eight San Joaquin Valley regional planning agencies. The goal of the SJV

¹ See each individual plan for a description of the measures and the process used to develop the measures.

² As of March 15, 2007, EPA has taken no final approval action on the *Amended 2002/2005 Rate of Progress Plan for San Joaquin Valley Ozone* or the *2004 Extreme Ozone Attainment Demonstration Plan*.

Blueprint is to develop a 2050 vision for the valley that is created and shared by its residents. The Blueprint is being prepared over a 2-year period from 2006 - 2008. Public workshops will be held on a regular basis during that time to engage the public on topics of regional vision, goals, evaluation of alternative planning scenarios, and programs and policy development. Once complete, the San Joaquin Valley Blueprint Planning Process will include policy and program tools to encourage local governments, business, and agriculture to implement the vision. The SJVUAPCD is an active participant in the Blueprint Process and is a sponsor of the project.

9.2.2 Local Reasonably Available Control Measure (RACM) Strategy

The Clean Air Act (Section 172 (c)(1)) requires State Implementation Plans (SIPs) to contain Reasonably Available Control Measures (RACM) to provide for attainment of the air quality standard as expeditiously as practicable. The San Joaquin Valley Air Pollution Control District (SJVAPCD) requested that the Valley Metropolitan Planning Organizations (MPOs) develop Local RACM for the 8-hour Ozone SIP.

In December, 2006, the SJV MPOs prepared documentation for the Draft Implementation of Local Reasonably Available Control Measure (RACM) strategy (see Appendix C). The strategy consisted of two parts: (1) evaluation of potential RACM for advancing the attainment date and (2) the adoption of a Congestion Mitigation and Air Quality (CMAQ) policy to fund cost-effective emission reduction projects. The draft approach was transmitted for interagency consultation and the response to comments received is included in Appendix C.

Evaluation of Potential RACM for Advancing Attainment Date

The MPOs have applied EPA's final rule to implement the 8-hour ozone standard for identifying the RACM commitments. If it is demonstrated that the combined local RACM can not advance the attainment date by at least one year, then those additional measures are not deemed "reasonably available" under EPA policy and do not need to be included in the State Implementation Plan (SIP). It is important to note that the Draft approach transmitted for interagency consultation was modified slightly to address the Extreme classification addressed in this Plan. The evaluation of potential RACM for advancing the attainment date is presented in three steps as documented below.

Step 1: A list of local control measures was developed for possible consideration. This list was developed from previous San Joaquin Valley RACM processes, more recent guidance materials, applicable SIPs, and measures suggested by the public during the SJVAPCD Town Hall meetings. The list is organized by CAA Section 108(f) transportation control measure categories.

Documentation for development of the list of control measures for possible consideration is contained in Appendix C. Steps 1 – 6 resulted in an extensive list of control measures for consideration and demonstrates due diligence in identifying potential local RACM. It is important to note that Step 1 begins with the previous San

Joaquin Valley RACM processes which have been federally approved by EPA as part of the Amended 2003 PM-10 Plan. Step 2 addresses measures suggested by the public during the development of the Draft 2007 Ozone Plan. In addition, Steps 3 – 5 address more recent EPA guidance materials. Seven additional SIPs were considered as part of Step 6. In total, over 65 documents were referenced in developing the list of control measures for consideration.

The resulting list of control measures for consideration contains approximately 20 new measures that were not considered specifically in previous analyses. However, it is important to note that the measures are similar to measures previously considered. In addition, the TCM categories in general were addressed in the emission reduction estimates described below. Since the emission reduction analysis concludes that the TCM categories will not advance attainment, the additional measures identified do not need to be considered explicitly.

Step 2: Emission reduction estimates were developed for the Section 108(f) categories to assess the local RACM list developed above. There are 16 broad categories of TCMs described under Section 108(f) of the Clean Air Act (CAA). These categories are summarized in Table 9-1.

Table 9-1 Clean Air Act Section 108(f) Transportation Control Measures	
Category	Control Measure Summary
i	Improved Public Transit
ii	High-Occupancy Vehicle (HOV) Lanes
iii	Employer-Based Plans and Incentives
iv	Trip-Reduction Ordinances
v	Traffic Flow Improvements
vi	Fringe and Transportation Corridor Parking Facilities for Carpool/Vanpool and Transit
vii	Limit or Restrict Vehicle Use in Downtown Areas
viii	HOV and Ride-Sharing Programs
ix	Limit Access to Roads/Sections of Metro Area to Non-Vehicular or Pedestrian Use
x	Bicycle Facilities
xi	Control Extended Idling of Vehicles
xii	Reduce Extreme Cold Start Emissions
xiii	Employer-Sponsored Flexible Work Schedules
xiv	Planning and Development Efforts that Reduce Single-Occupancy Vehicle (SOV) Travel
xv	Construction/Re-construction of Paths, Tracks or Areas for Non-Motorized Transportation or Pedestrian Use
xvi	Pre-1980 Model Year Light-Duty Vehicle Scrappage

For the San Joaquin Valley Air Basin, each of the TCM categories in Table 9-1 was considered for implementation. Each TCM was evaluated for its applicability to the San Joaquin Valley. For those measures determined to be applicable, a careful review of the literature was conducted to determine the maximum feasible travel reductions attributable to them. NO_x reductions were then computed from the estimate of the travel reductions. Key assumptions used to ensure that the travel and NO_x reduction estimates represent the maximum feasible reductions in San Joaquin Valley, include:

- Travel reductions were obtained from a recent literature review of 86 separate reports documenting community experience in implementing TCMs. Most of the communities addressed in these reports are large urban areas (e.g., Chicago, Philadelphia, Houston, etc.) with high population densities and high levels of travel. Mean travel reductions (i.e., not percent but absolute reductions in vehicle miles traveled) reported for these communities were used to represent an upper bound estimate of the reductions that could be expected for implementing these measures in San Joaquin Valley communities.
- TCM effectiveness is significantly influenced by population density. Portions of the Valley are rural and TCMs will achieve limited travel reductions when implemented in those areas (e.g., measures implemented in Fresno will provide substantially greater reductions on both a percentage and absolute basis than measures implemented in Kings County). This analysis assumes that mean travel reductions observed for measures implemented in other communities will be achieved throughout the entire San Joaquin Valley regardless of differences in population density.
- The travel reduction estimates are based on the implementation of multiple measures for most of the applicable TCM categories. The literature review documented the implementation of 17 categories of control measures. Thus, for example, three separate categories of transit programs were documented (1) new shuttle and/or feeder services, (2) new fixed guideway systems or equipment, and (3) conventional transit improvements. The travel reductions used to compute the NO_x reductions for “Improved Public Transit” represents the sum of the mean travel reductions for all three transit program categories.
- Travel reductions from TCMs are not additive, they are typically multiplicative. Most measures target commute trips and if all are implemented at the same time their impacts overlap each other (e.g., transit, rideshare, park & ride, HOV lanes, etc.). This analysis summed the travel reductions for multiple measures where applicable for each of the individual TCM categories. NO_x reductions were computed for each of these categories on the basis of those reductions. The overall estimate of the NO_x reduction potential for all applicable TCMs is based on the addition of the reductions estimated for each category. Thus, the analysis assumes that all of the travel reductions achieved by each of the individual TCM categories can be achieved when they are implemented together.

Table 9-2 shows the measures that were found to be applicable to the San Joaquin Valley, along with their maximum feasible emission reductions. As shown, the total reduction in NO_x emissions that could be achieved from implementing all the TCMs is approximately 7 tons per day (tpd) in 2020 and 5 tpd in 2023.

Table 9-2 Maximum Feasible NO_x Emission Reductions from TCMs in the San Joaquin Valley in 2020 and 2023		
Control Measure Category	NO_x Reduction (tpd)	
	2020	2023
(i) Improved Public Transit	0.11	0.09
(ii) High-Occupancy Vehicle (HOV) Lanes	0.06	0.05
(iii) Employer-Based Plans and Incentives	0.72	0.56
(iv) Trip-Reduction Ordinances	0.62	0.49
(v) Traffic Flow Improvements	0.06	0.05
(vi) Fringe and Transportation Corridor Parking Facilities for Carpool/Vanpool and Transit	0.02	0.02
(vii) Limit or Restrict Vehicle Use in Downtown Areas	0.31	0.25
(viii) HOV and Ride-Sharing Programs	0.01	0.01
(ix) Limit Access to Roads/Sections of Metro Area to Non-Vehicular or Pedestrian Use	4.23	3.41
(x) Bicycle Facilities	0.005	0.004
(xi) Control Extended Idling of Vehicles	n/a	n/a
(xii) Reduce Extreme Cold Start Emissions	0.00	0.00
(xiii) Employer-Sponsored Flexible Work Schedules	0.04	0.03
(xiv) Planning and Development Efforts that Reduce SOV Travel	0.11	0.09
(xv) Construction/Re-construction of Paths, Tracks or Areas for Non-Motorized Transportation or Pedestrian Use	0.003	0.002
(xvi) Pre-1980 Model Year Light-Duty Vehicle Scrappage	0.43	0.41
All TCMs Maximum Feasible NO_x Emission Reduction	6.73	5.45

Step 3: The emission reduction estimates were compared against the attainment demonstration information contained in the January 29, 2007 version of the Draft 2007 Ozone Plan to determine if they collectively advance attainment by a full year. Three possible threshold estimates of the NO_x reductions were identified that would be needed to advance attainment of the 8-hour ozone plan by one year.

1. According to Table 11-1 of the January 29, 2007 version of the Draft 2007 Ozone Plan, "Black Box" measures will need to supply an additional 85 tons per day in NO_x reductions to achieve attainment in 2023. Thus, one measure of the reductions needed to advance attainment by one year is the shortfall in reductions needed to ensure that attainment occurs in 2023.
2. A more stringent estimate of the reductions needed to advance attainment by one year can be found by interpolating the 101 tons per day NO_x reductions

needed between 2020 and 2023 to demonstrate attainment. A straight line allocation of those reductions over a three year period indicates that roughly 34 tons per day would be needed to advance attainment by one year.

3. The most stringent estimate of the reductions needed to advance attainment by one year comes from determining the NO_x reductions required to achieve a 1 ppb decrease in ozone (i.e., the smallest change that is measurable at controlling monitors). The isopleths for the Arvin and Fresno-Sierra Sky Park monitors show that an 8.8 tons per day reduction in NO_x will be required to achieve a 1 ppb decrease in ozone concentrations at those monitoring sites.

As discussed earlier, the methodology used to compute the maximum feasible travel and NO_x reductions took no short cuts in limiting the potential reductions for the applicable control measures. Since this analysis shows that the maximum feasible NO_x reductions from implementing all applicable TCMs will be approximately 7 tons per day in 2020 and 5 tons per day in 2023, it will not be possible to advance 8-hour ozone attainment in San Joaquin Valley by a single year using any of the criteria identified above.

Since the analysis indicates that the combination of local RACM will not advance attainment by a full year, no further efforts to adopt local commitments for the Plan are necessary.

It is important to note that Table 11-1 has been updated for the Revised Proposed 2007 Ozone Plan. However, the modifications are minor (i.e., attainment gap in 2020 modified from 101 to 99 and attainment gap in 2023 modified from 85 to 82) and do not impact the conclusions of this RACM evaluation.

Adoption of a Congestion Mitigation and Air Quality (CMAQ) Policy

The purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (PM). While all CMAQ funding must go to transportation-related projects that demonstrate an air quality benefit, the eight SJV MPOs currently have different criteria and processes for allocating funding to eligible agencies. There is currently no minimum cost-effectiveness established for the CMAQ program, and according to recent studies, the numbers vary widely across the country.

In addition to the local RACM approach, the SJV MPOs are voluntarily developing a standardized process across the Valley for distributing 20 percent of the CMAQ funds to projects that meet a minimum cost-effectiveness beginning in FY2011. This policy will focus on achieving the most cost-effective emission reductions, while maintaining flexibility to meet local needs.

The policy is scheduled to be implemented in FY 2011 because the current federally approved 2007 Federal Transportation Improvement Programs (FTIPs) have committed CMAQ funds through FY 2009 and in some cases, regional commitments through FY 2010. In addition, the current CMAQ programming assists in implementing approved local RACM (Amended 2003 PM-10 Plan) that are currently committed through 2010. Due to changes in project costs and technology over time, the MPOs will revisit the minimum cost-effectiveness standard, as well as policy feasibility. A periodic review of the policy is necessary due to potential changes in federal transportation legislation, apportionments, and project eligibility. Should future transportation legislation not include CMAQ funding, this policy will no longer be in effect.

9.2.3 Conformity Budgets

Section 176(c) of the FCAA outlines the conformity provision of the Clean Air Act. Federal actions are required to conform to the SIP's purpose of eliminating or reducing the severity and number of exceedances of the NAAQS and achieving expeditious attainment of these standards. The FCAA distinguishes transportation actions [those undertaken by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA)] from all other federal actions.

Metropolitan Planning Organizations (MPOs) must make findings that the regional transportation plans (RTPs) and transportation improvement programs (TIPs) conform to the SIP. They submit this conformity finding along with the RTP and TIP, to FHWA and FTA for approval. The conformity finding must demonstrate that the emissions associated with the RTP and TIP do not exceed "emission budgets" that are contained in the SIP.

The District's *Amended 2002 and 2005 Rate of Progress Plan for San Joaquin Valley Ozone* established subarea emissions budgets for each county for VOC and NO_x for 2005; in addition, the *2003 PM₁₀ Plan* established subarea emissions budgets for each county for NO_x and PM for 2005, 2008 and 2010 and includes a trading mechanism. The *Extreme Ozone Attainment Demonstration Plan* established subarea county emissions budgets for VOC and NO_x for 2008 and 2010. EPA published the notice of adequacy determination in the February 15, 2005 Federal Register, effective March 2, 2005. This Revised Proposed 2007 Ozone Plan establishes subarea county emission budgets for ROG and NO_x for the Extreme Classification horizon years 2008, 2011, 2014, 2017, 2020, and 2023.

The emission budgets are based on the latest MPO VMT data and speed distributions (see Draft 2007 Conformity Analyses) where available. The EMFAC 2007 model runs include the updated VMT through adjustments to vehicle population per the EPA approved ARB Recommended Methods for use of EMFAC2002 To Develop Motor Vehicle Emissions Budgets and Assess Conformity (note that ARB has indicated the methods will remain unchanged with the transition to EMFAC 2007). Updated speed distributions are input directly. If updated MPO VMT data and speed distributions were not available, the EMFAC 2007 default data was used.

It is important to note that the EMFAC 2007 model requires a WIS interface adjustment for the population function. As a result, the individual MPO runs are executed for the San Joaquin Valley Air Basin by Sub-Area. These budgets will be adjusted with the updated EMFAC 2007 model prior to ARB adoption of the Plan.

Both District and ARB control measures that are included in the Plan that affect on-road mobile sources have been included in the conformity emission budgets. District controls include:

- existing Indirect Source Mitigation and School Bus Fleets rules (see Table B-1)
- proposed Employee Trip Reduction (see Table 8-1).

ARB controls include:

- existing Reflash, Idling, and Moyer (see Table B-2)
- proposed passenger vehicle and truck measures included in the Draft State Strategy (see Table 9-4).

While valley-wide emission reductions are presented throughout the Plan, by County, emission reduction estimates have been estimated for inclusion in the conformity emission budgets. In general, by County emission estimates were calculated by distributing the valley-wide emission reductions by population or ratio of emissions sub-category to total motor vehicle estimate (e.g., heavy-duty truck emissions/total motor vehicle emissions). Table 9.3 reflects these emission reductions. Detailed documentation supporting the conformity emission budget development is contained in Appendix C.

The budgets are derived starting with the projections from ARB's EMFAC 2007 on-road mobile source emission factor model (using the San Joaquin Valley Air Basin by Sub-Area option). These are adjusted to account for any baseline emission reductions not included in the model. New emission reduction commitments are also subtracted from the adjusted baseline to arrive at the conformity budgets. It is important to note that Section 93.124(e) of the federal conformity rule indicates that nonattainment areas with more than one MPO may establish motor vehicle emission budgets for each MPO in the implementation plan. As a result, County-level emission budgets are provided in this plan. The following is the 2023 budget calculation for Fresno County. The calculation methodology for the other years and counties is identical.

	ROG	NOx
Emissions Baseline		
Baseline EMFAC 2007	9.08	22.89
Existing Local Reductions	0.00	0.31
Existing State Reductions	0.01	2.71
Adjusted Baseline	9.07	19.87
New/Proposed Control Measures		
Local Reductions	0.16	0.06
State Reductions	1.14	4.21
Conformity Emissions Budgets*	7.8	15.7

* Rounded up to the nearest tenth.

Table 9.3 Transportation Conformity Budgets¹

County	2008		2011		2014		2017		2020		2023	
	ROG	NOx	ROG	NOx	ROG	NOx	ROG	NOx	ROG	NOx	ROG	NOx
Fresno	18.6	58.5	15.5	47.9	12.9	37.2	11.1	29.1	8.0	16.9	7.8	15.7
Kern (SJV)	18.1	93.9	15.7	79.4	13.5	64.1	11.6	49.5	8.5	28.4	8.1	24.8
Kings	3.9	18.3	3.4	15.9	2.8	12.3	2.3	9.4	1.7	5.3	1.6	4.7
Madera	4.5	14.6	3.7	12.2	3.1	9.8	2.6	7.8	1.9	4.8	1.9	4.4
Merced	7.4	35.5	6.2	28.8	5.1	22.3	4.2	17.1	2.9	9.9	2.8	9.0
San Joaquin	13.9	39.9	12.1	34.7	10.1	27.8	8.6	21.3	6.3	12.7	6.3	11.9
Stanislaus	10.5	26.7	9.0	22.3	7.5	17.2	6.5	13.4	4.9	8.0	4.6	7.1
Tulare	10.5	23.4	9.2	20.9	7.7	16.6	6.7	13.1	5.2	8.4	4.8	7.4

¹ All emissions are expressed as summer tons/day, and were derived using EMFAC2007, (November 1, 2007) with updated vehicle population and vehicle miles traveled data where available. The budget was established by taking the EMFAC results, subtracting by County, emission reductions from District and ARB control measures and rounding up to the nearest tenth if the hundredths place was "1" or higher. See Appendix C for detailed documentation supporting the conformity emission budget development.

9.3 SUMMARY OF THE NEW STATEWIDE STRATEGY UNDER EVALUATION BY THE AIR RESOURCE BOARD STAFF

The ARB is developing a new statewide emission reduction strategy to achieve additional reductions needed to bring areas of the State into attainment of both the federal PM_{2.5} and ozone standards. The State Strategy currently under development will provide the next installment of new reductions. The currently quantified emission reduction estimates from the mix of concepts being evaluated for the statewide strategy are shown in Table 9-4. We have also included a list of short descriptions of the measures under evaluation by ARB staff.

ARB staff continues to provide opportunities for the public to provide input on the California's State Implementation Plan efforts. ARB staff held a SIP Symposium in October of 2006 and a workshop in November. ARB staff participated in SIP workshops conducted by the staff of the San Joaquin Valley APCD to discuss how the statewide control measures fit into local 8-hour ozone strategy. Additionally, ARB staff will hold workshops around the State to get input on the control measures under consideration in Spring of 2007. ARB staff will bring the proposed Statewide Strategy before the Air Resources Board for consideration in the Spring of 2007. In June 2007, the Air Resources Board will consider the Valley's ozone SIP, which will incorporate the emission reduction benefits in the San Joaquin Valley of the proposed State Strategy.

Table 9-4 Emission Reduction Estimates* for the San Joaquin Valley from Near Term Measures Under Evaluation for State and Federal Measures

Proposed New SIP Measures	2014		2020		2023	
	NOx	ROG	NOx	ROG	NOx	ROG
ON-ROAD SOURCES						
Passenger Vehicles	3.8	6.5	2.7	4.1	2.1	3.3
Smog Check Improvements (BAR)	3.3	2.9	2.4	2.2	2.1	1.9
Expanded Vehicle Retirement	0.5	0.7	0.3	0.3	0.0	0.1
Modifications to Reformulated Gasoline Program	--	2.9	--	1.6	--	1.3
Trucks	61.4	6.4	30.2	3.3	21.2	2.3
Cleaner In-Use Heavy-Duty Trucks	61.4	6.4	30.2	3.3	21.2	2.3
On-Road Sub-Total for Conformity Budgets	NA	NA	32.9	7.4	23.3	5.6
GOODS MOVEMENT SOURCES	7.2	0.5	15.6	1.2	16.4	1.3
Auxiliary Ship Engine Cold Ironing and Other Clean Technology	--	--	--	--	--	--
Cleaner Main Ship Engines and Fuel	--	--	--	--	--	--
Port Truck Modernization	--	--	--	--	--	--
Accelerated Introduction of Cleaner Line-Haul Locomotives*	7.2	0.5	15.6	1.2	16.4	1.3
Clean Up Existing Harbor Craft	--	--	--	--	--	--
OFF-ROAD SOURCES						
Off-Road Equipment	4.8	0.8	4.9	0.8	4.0	0.6
Cleaner In-Use Off-Road Equipment (over 25hp)	4.8	0.8	4.9	0.8	4.0	0.6
Agricultural Equipment	NYQ	NYQ	NYQ	NYQ	NYQ	NYQ
Other Off-Road Sources	0.1	4.0	0.4	8.9	0.6	11.5
New Emission Standards for Recreational Boats	0.1	1.2	0.4	3.8	0.6	5.3
Expanded Off-Road Recreational Vehicle Emission Standards	--	2.2	--	4.0	--	4.8
Portable Outboard Marine Tank Evaporative Standards	--	0.3	--	0.5	--	0.5
Refueling Gasoline Storage Tank Evaporative Standards	--	0.1	--	0.4	--	0.6
Gas Station Fueling Hose Evaporative Standards	--	0.2	--	0.2	--	0.3
Enhanced Vapor Recovery for Above Ground Storage Tanks	--	NYQ	--	NYQ	--	NYQ
AREAWIDE SOURCES						
Consumer Products	--	3.2	--	3.6	--	3.8
Consumer Products Program	--	3.2	--	3.6	--	3.8
Pesticides	--	NYQ	--	NYQ	--	NYQ
DPR 2008 Pesticide Plan	--	--	--	--	--	--
Total Emission Reductions from Proposed New Measures	77	21	54	22	44	23

NYQ – Not Yet Quantified

* Estimated benefits of the State Strategy are subject to change and are not considered final until the Air Resources Board adopts them as the 2007 State Strategy. The State of California's commitments for ozone attainment in the San Joaquin Valley will be for emission reductions in 2020 and 2023. Benefits in 2014 are provided for informational purposes only and may be revised as the District develops the Valley's PM_{2.5} Attainment Plan.

** Requires U.S. EPA Action

*** The California Department of Pesticide Regulation (CDPR) is developing a suite of new pesticide emission reductions measures for inclusion in the Statewide Strategy. CDPR will provide the estimated benefits of these measures in the future as part of the State Strategy.

Overview of the Statewide Strategy Under Development

Responsibility for implementing emission reduction measures is shared between the agencies with primary responsibility for controlling air pollution in California: the State Air Resources Board (ARB), 35 local air pollution control and air quality management districts (air districts), and the U.S. Environmental Protection Agency (U.S. EPA).

ARB is responsible for controlling emissions from mobile sources (except where federal law preempts ARB's authority) and consumer products, developing fuel specifications, establishing gasoline vapor recovery standards and certifying vapor recovery systems, providing technical support to the districts, and overseeing local district compliance with State and federal law. The State Department of Pesticide Regulation is responsible for control of agricultural, commercial and structural pesticides, while the Bureau of Automotive Repair runs the State's Smog Check programs to identify and repair polluting cars.

In the San Joaquin Valley, emission reductions from the existing federal, State, and local source control program are not enough to attain the federal standards, further emission reductions from new strategies must be achieved in order meet the emission reduction target. Generally, the new strategies under consideration by ARB staff are summarized below. More information on the Air Resources Board staff's ozone planning activities is available online at:

<http://www.arb.ca.gov/planning/sip/2007casip.htm>

Passenger Vehicles

Improvements and Enhancements to California's Smog Check Program

Low Pressure Evaporative Test. Require low pressure evaporative system testing and repair of evaporative system leaks for all vehicles subject to Smog Check inspection.

More Stringent Cutpoints. More stringent pass/fail cutpoints would require more cars to be repaired, and help ensure more complete and durable repairs.

Annual Inspections for Older Vehicles. Inspect older vehicles annually rather than every two years. Older vehicles tend to have greater deterioration of emission controls, and consequently, higher emissions.

Annual Inspections for High Annual Mileage Vehicles. Inspect annually, rather than every two years, vehicles that accrue very high mileage on an annual basis. High mileage vehicles tend to have greater deterioration of emission controls, and consequently, higher emissions.

Add Visible Smoke Test. As part of the Smog Check test, include a check for visible smoke to identify vehicles with excess particulate matter (PM) emissions.

Inspection of Light and Medium Duty Diesels. Include light and medium duty diesel vehicles in the Smog Check program to provide for improved maintenance and reduced emissions for this part of the fleet, and require the repair of poorly maintained or old emission systems.

Inspection of Motorcycles. Include motorcycle inspections as part of Smog Check. Studies indicate that motorcycles are subject to high rates of exhaust system tampering.

Expanded Passenger Vehicle Retirement. Increase the number of vehicles that are voluntarily retired by implementing a scrappage program for vehicles that are off cycle from their Smog Check inspections.

Modifications to Reformulated Gasoline Program. Modify California's Reformulated Gasoline Program to offset ROG emissions due to the increased use of ethanol. This rulemaking activity is currently underway and is intended to fully mitigate the emission increase, which has been incorporated in the current emissions inventory.

Trucks

Cleaner In-Use Heavy-Duty Trucks. This proposed measure is a comprehensive in-use diesel truck emissions reduction program that includes a fleet modernization rule and an enhanced screening and repair program. Fleet modernization would focus on overcoming the typically slow rate of heavy-duty truck turnover by requiring truck owners to meet specified emission levels through replacing or cleaning up the oldest trucks in their fleets, and would also include a program for out-of-state trucks. ARB's roadside heavy-duty vehicle inspection program would be expanded to more effectively identify and screen trucks that need emission control system repairs.

GOODS MOVEMENT SOURCES

Auxiliary Ship Engine Cold Ironing and Other Clean Technology. Reduce emissions from ships at berth with at-dock technologies such as cold ironing (electrical power) and other clean technologies.

Cleaner Main Ship Engines and Fuel. Further reduce emissions from main engines through added retrofits such as selected catalytic reduction. Support efforts by ports and appropriate local entities to encourage the accelerated use of cleaner ships and rebuilt engines through other tools such as lease restrictions. Require ships to use low sulfur diesel fuel in main engines when operating within 24 nautical miles of shore.

Port Truck Modernization. Retrofit or replace older heavy-duty diesel trucks that service ports. Work with port authorities to prevent adding older trucks to the fleet.

ARB rulemaking process for this proposed measure has begun. ARB has started the rulemaking process for this proposed measure.

Accelerated Introduction of Cleaner Line Haul Locomotives. Replace existing locomotive engines with cleaner Tier 3 engines beginning in 2012 and conduct concurrent rebuilds of older engines to Tier 2.5 standards. This measure can only occur once U.S. EPA adopts Tier 3 engines standards for locomotives.

Clean Up Existing Commercial Harbor Craft. Require owners of existing commercial harbor craft to replace old engines (both propulsion and auxiliary) with newer cleaner engines and/or add emission control technologies that clean up engine exhaust. ARB rulemaking for this proposed measure is underway.

OFF-ROAD SOURCES

Off-Road Equipment

Cleaner In-Use Off-Road Equipment. Establish fleet average emission limits for off-road equipment (over 25 horsepower) that would require older, dirtier engines to be replaced with engines reflecting current technologies or retrofitted with emission control devices. ARB rulemaking for this proposed measure is in process.

Agricultural Equipment

Agricultural Equipment Fleet Modernization. Once PM_{2.5} emission reduction needs are identified, accelerate as needed, the modernization of the fleet of agricultural equipment used in California, removing older, dirtier equipment from service to be replaced with engines reflecting cleaner technologies.

Other Off-Road Sources

New Emission Standards for Recreational Boats. Adopt catalyst-based standards (5 g/kW-hr) for new outboard engines and evaporative emission standards to address all sources of recreational boat evaporative emissions.

Off-Road Recreational Vehicle Expanded Emission Standards. Adopt exhaust and evaporative emission standards to reduce the amount of reactive organic gases from off-highway motorcycles and all-terrain vehicles.

Portable Outboard Marine Tank Evaporative Standards. Set evaporative standards for removable fuel tanks used on outboard recreational boats.

Refueling Gasoline Tank Evaporative Standards. Set evaporative standards for refueling gasoline tanks typically mounted on large recreational vehicles and used to refuel other smaller vehicles.

Gas Station Refueling Hose Evaporative Standards. Set evaporative standards for gas station pump hoses.

Enhanced Vapor Recovery for Above Ground Storage Tanks. Implement an enhanced vapor recovery certification process and new performance standards and specifications for these large tanks used extensively in agricultural operations.

Consumer Products

Tighten Standards. Tighten standards or require product reformulation for consumer products categories through several rulemakings through 2010.

Pesticides

New Pesticide Strategies. The California Department of Pesticide Regulation will further reduce emissions from commercial and agricultural pesticide use in California through reformulation, reduced usage, and innovative technologies and practices.

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