Bay Area 2009 Clean Air Plan
Draft Summary of Review and Evaluation of Potential Control Measures
September 1, 2009
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This document summarizes the review of potential control measures for the Bay Area 2009 Clean Air Plan (CAP) performed by Air District staff. Tables providing details about staff review of specific control measures are posted on the web page for the 2009 CAP at: http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx

Background

Pursuant to California Health & Safety Code Section 40914, the Bay Area 2009 Clean Air Plan is required to include all feasible control measures to reduce region-wide emissions for each nonattainment pollutant (e.g., ozone precursors). To identify feasible measures for the 2009 CAP, Air District staff[1] reviewed and evaluated 844 potential control measures compiled from a variety of sources. Air District staff sought ideas for new control measures, as well as ways to strengthen existing rules and programs. Sources of potential measures included ideas submitted by the public, Air District staff, other California air district control measures contained in recently-adopted air quality plans, as well as air quality plans from metropolitan areas outside of California. In addition, staff reviewed measures that had previously been considered and rejected during preparation of the Bay Area 2005 Ozone Strategy, to see if the rationale for rejecting a measure at that time is still valid for purposes of the 2009 CAP. The 844 measures reviewed included:

- 368 measures from recently-adopted air quality attainment plans.
- 390 measures from the 2005 Ozone Strategy control measure review process.
- 39 measures suggested by the public.
- 47 measures suggested by Air District Staff.

Staff reviewed stationary source, area source, mobile source, and transportation control measures from the following plans:

California Air Quality Attainment Plans

- 2007 Air Quality Management Plan (South Coast AQMD, May 2007)
- Sacramento Regional 8-Hour Ozone Attainment And Reasonable Further Progress Plan (Draft January 2009, Sacramento Metropolitan AQMD)
- 2007 Ozone Plan (April 30, 2007, San Joaquin Valley Unified APCD)
- 2008 Air Quality Management Plan (August 2008, Monterey Bay Unified APCD)
- 2007 Clean Air Plan (August 2007, Santa Barbara APCD)
- Eight-Hour Ozone Attainment Plan For San Diego County (May 2007, San Diego APCD)
- Ventura County 2007 Air Quality Management Plan (May 13, 2008, Ventura APCD)

Out of State Air Quality Attainment Plans

- Houston-Galveston-Brazoria regional SIP (April 2010)

[1] MTC staff provided assistance in evaluating some of the suggested transportation measures.

- New York SIP for Ozone (8-Hour NAAQS) Attainment Demonstration for NY Metro Area (August 9, 2007)
- Proposed Maintenance Plan for Southeast Michigan (February 2009)
- Draft Chicago 8-Hour Ozone Attainment Demonstration and Maintenance Plan (December 2008)
- Proposed Georgia's State Implementation Plan for the Atlanta 8-Hour Ozone Nonattainment Area (March 29, 2009)

Control Measure Framework and Evaluation Criteria

Potential control measures were reviewed and evaluated as described below and as summarized in Table A. Potential measures were initially screened to identify and eliminate measures that have been either:

- Implemented and completed by the Air District
- Implemented by the Air Resources Board, US EPA, or another agency

Measures which were under the Air District's jurisdiction and authority were evaluated according to the criteria specified in California Health & Safety Code Sec. 40922:

- Cost-effectiveness
- Technological feasibility
- Total emission reduction potential
- Rate of reduction
- Public acceptability
- Enforceability

In addition to the criteria specified in the California Health & Safety Code, control measures were also evaluated based upon their potential to reduce:

- Emissions of PM, air toxics, greenhouse gases (in addition to ozone precursors)
- Population exposure to pollutants in one or more of the "impacted communities" identified in the District's CARE program

In reviewing measures based on the evaluation criteria described above, some measures were eliminated based on the reasons shown in Table A below.

Measures that are recommended for inclusion in the 2009 CAP fall into three categories:

- Measures incorporated in one of the five control measure categories:
  - Stationary Source Measures
  - Mobile Source Measures
  - Transportation Control Measures
  - Land Use & Local Impact Measures
  - Energy & Climate Measures
- Further Study Measures: This category includes measures which appear to have merit but require more research and information to determine if they are viable for implementation. These measures will be further evaluated , but are not proposed as formal control measures at this time.

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- Measures incorporated in draft CAP Leadership Platform: Staff is proposing to include a Leadership Platform in the 2009 CAP to encourage actions by other agencies and/or potential legislation that would be beneficial for air quality. Some potential measures have been included in the draft Leadership Platform.

Table A - Outcome Of All Feasible Measures Review

Category	*Category Definition*	*# of Measures*
Already Implemented by the Air District		219
Already Implemented by Another Agency	Measures that have already been implemented or addressed through State, Federal, or regional agency programs.	116
Measures Deemed Not Feasible		
	De minimus or no sources exist in the Bay Area.	62
	Not cost-effective.	11
	Not publicly acceptable.	10
	Not applicable to this plan.	13
	Not technologically feasible.	3
	Not enforceable.	3
	Other.	9
	Total not feasible:	111
Total # Potential Measures Not Incorporated into Draft Control Strategy		**446**
Incorporated into Draft Control Strategy: Stationary Source Measures	Measures implemented through District rule-making: industrial /commercial processes, stationary combustion, petroleum products processing and distribution, and area sources.	45
Incorporated into Draft Control Strategy: Mobile Source Measures	Measures to reduce emissions from on-road and off-road mobile sources by means of cleaner engines or fuels.	76
Incorporated into Draft Control Strategy: Transportation Control Measures	Measures to reduce motor vehicle emissions by reducing vehicle use or traffic congestion.	171
Incorporated into Draft Control Strategy: Land Use and Local Impact Measures	Land use measures to reduce motor vehicle travel and decrease human exposure to air pollutants.	41
Incorporated into Draft Control Strategy: Energy and Climate Measures	Measures to reduce energy use, promote renewable energy sources, and reduce urban heat island effects.	14
Total # Potential Measures Recommended to be Incorporated into Draft Control Strategy		**347**
Included as Further Study Measures	Measures which meet some evaluation criteria but require further analysis to determine if they are potentially viable.	39
Included in Draft Leadership Platform	Measures which will be pursued through advocacy and partnerships as part of the Leadership Platform.	12
Total # Potential Measures Included as Further Study Measures or in Leadership Platform		**51**

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Bay Area 2009 Clean Air Plan

Introduction to Tables 1 & 2 re: Evaluation of Potential Control Measures

In developing the draft control strategy for the Bay Area 2009 Clean Air Plan (CAP), Air District staff[2] reviewed and evaluated 844 potential control measures compiled from a variety of sources. Sources of potential measures included ideas submitted by the public, Air District staff, other California air district control measures contained in recently-adopted air quality plans, as well as air quality plans from metropolitan areas outside of California. In addition, staff reviewed measures that had previously been considered and rejected during preparation of the Bay Area 2005 Ozone Strategy, to see if the rationale for rejecting a measure at that time is still valid for purposes of the 2009 CAP. The 844 measures reviewed included:

- 368 measures from recently-adopted air quality attainment plans.
- 390 measures from the 2005 Ozone Strategy control measure review process.
- 39 measures suggested by the public.
- 47 measures suggested by Air District Staff.

The detailed results of this process are shown in Table 1 and Table 2 below.

Table 1 (p 5) shows suggested measures that have been addressed or incorporated in the draft control strategy. The measures are sorted based upon the categories of control measures which are proposed for the 2009 CAP, that is:

- Stationary Source Measures (SSMs)
- Mobile Source Measures (MSMs)
- Transportation Control Measures (TCMs)
- Land Use & Local Impacts Measures (LUMs)
- Energy & Climate Measures (ECMs)

In addition, Table 1 shows measures that are not included in a formal control measure, but are addressed in the Further Study Measures or the Leadership Platform.

Table 2 (p. 43) shows measures that have <u>not</u> been included in the draft CAP control strategy. The measures are sorted according to the reason they were not included:

- Already implemented by BAAQMD
- Already implemented by another agency
- Not Feasible: Most measures in this category were deemed to be either:
  - De minimis emission reductions
  - Not cost-effective
  - Not publicly acceptable

[2] MTC staff provided assistance in evaluating some of the suggested transportation measures.

Table 1 - Potential Control Measures Included in Draft Control Strategy for Bay Area 2009 Clean Air Plan

This table shows potential control measures that were reviewed by BAAQMD staff and included in the Draft Control Strategy for the Bay Area 2009 Clean Air Plan (CAP).

- Mobile Source Measures begin on page 10
- Transportation Control Measures begin on page 17
- Land Use Measures begin on page 32
- Energy & Climate Measures begin on page 36
- Further Study Measures begin on page 37
- Leadership Platform begin on page 41

Stationary Source Measures

CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	SSM 2 Composting Operations	Stationary Source	Emission Reductions from Green Waste Composting	SCAQMD 2007 AQMP	The proposed control method will be divided into Phase I - review recent studies on emission factors and best management plans (BMPs) to refine inventories and to assess reduction potential, and Phase II – program development including potential rule development to incorporate technically feasible and cost-effective BMPs
2	SSM 2 Composting Operations	Stationary Source	Composting and Biosolids	SJVAPCD 2007 Ozone Plan	Cover waste with finished compost, soil, or a waterproof covering. For Land application operations, rapidly land incorporate waste; rapidly cover waste. Require larger operators to maintain all piles within specific parameters or use a control device to reduce VOC emissions. Require largest operators to operate a VOC emission control device.
3	SSM 2 Composting Operations	Stationary Source	Emission Reductions from Composting (VOC/NH3)	Bay Area 2005 Ozone Strategy	This measure would require controls on co-composting and green waste composting.
4	SSM 2 Composting Operations	Stationary Source	Commercial and Industrial Composting (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Control emissions from commercial and industrial composting based on South Coast measure WST-02.
5	SSM 2 Composting Operations	Stationary Source	Composting Green Waste (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Require sources that commercially compost green waste without mixing the green waste with manure, poultry, litter, or biosolids to install VOC devices.

6	SSM 4 General Particulate Matter Weight Rate Limitation	Stationary Source	PM Control Devices - Baghouses, Wet Scrubbers, Electrostatic Precipitators, and other Devices)	SCAQMD 2007 AQMP	Further reduction of emissions from particulate sources.
7	SSM 5 Greenhouse Gases in Permitting	Stationary Source	Including GHGs in Reg 2, Rule 1	BAAQMD staff recommendation by J. Stromberg	Develop a GHG emission policy via the pre-construction review program by making a small change to Rule 2-2 New Source Review.
8	SSM 6 Livestock Waste	Stationary Source	Emission Reductions from Livestock Waste	SCAQMD 2007 AQMP	The purpose of this control measure is to seek emission reductions from confined livestock facilities.
9	SSM 6 Livestock Waste	Stationary Source	Confined Animal Facilities-Dairy Operations	SJVAPCD 2007 Ozone Plan	SJVAPCD is proposing to lower these thresholds and increase the number of mitigation measures. Projected completion date of 2nd quarter 2010.
10	SSM 6 Livestock Waste	Stationary Source	Emission Reductions from Livestock Waste (VOC/NH3)	Bay Area 2005 Ozone Strategy	Reduce emissions from (primarily) dairies by moving them out of the South Coast air basin, moving manure out of the air basin or controlling emissions from anaerobic digestion of wastes.
11	SSM 6 Livestock Waste	Stationary Source	Livestock Waste	Reviewed Bay Area 2005 Ozone Strategy \TIAX	This measure is based on SMAQMD control measure SN-52. This measure suggests control of the VOC component of the decomposition of livestock waste by exporting agricultural operations, exporting waste, or capturing emissions from anaerobic digestion of waste.
12	SSM 6 Livestock Waste	Stationary Source	Livestock Waste (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Control or remove the emissions from livestock waste based on South Coast's measure WST-01.
13	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Require Best Modern Practices for oil and gas wells and their devices that intentionally vent natural gas including valve controllers and positioners, actuators, starter motors, and glycol dehydrators.	BAAQMD staff recommendation by Van Buren	Regulate leakage or intentional venting when it is in methane. Include methane when determining leakage and limit intentional venting. Especially require that any intentional venting be abated by an IC engine if one is located in close proximity as is the case with an engine driven natural gas compressor.
14	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Oil and Gas Fugitives (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Control Measure 4403 from the SJVUAPCD 2002 and 2005 Ozone Rate of Progress Plan (Table 2) proposes to reduce emissions from oil and gas production operations and natural gas processing plants.

15	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Glycol Dehydrators	Bay Area 2005 Ozone Strategy	San Joaquin and Ventura have adopted rules that control emissions from glycol dehydrators associated with natural gas drilling by requiring emissions to be vented to a control device, consisting of an existing flare or reboiler.
16	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Glycol Reboilers (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD adopted Rule 4408 to control emissions from glycol dehydrators associated with natural gas drilling and extraction.
17	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Natural gas wells	BAAQMD staff recommendation By S.Winer.	Control fugitive emissions, including methane, from natural gas production wells and associated equipment.
18	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Fugitive Emissions from Oil and Gas Production	Bay Area 2005 Ozone Strategy	Control fugitive emissions from natural gas wells, collection and distribution systems through housekeeping rules, such as dictating frequency of inspection and repair requirements.
19	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Natural Gas Production and Processing	SCAQMD 2007 AQMP	Establishes inspection and repair requirements for leaking components. Emission reductions would result from a reduction in the number of leaking components.
20	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Pneumatic Devices	SCAQMD 2007 AQMP	Reduce emissions of natural gas from pneumatic devices associated with natural gas wells, processing equipment and distribution by requiring low-bleed valves and/or routine maintenance.
21	SSM 7 Natural Gas Processing and Distribution	Stationary Source	Oil and Gas Fugitive Emissions	Bay Area 2005 Ozone Strategy	Reduce fugitive emissions from oil and gas production facilities by reducing the leak standard and allowable repair period.
22	SSM 8 Vacuum Trucks and Pipeline Cleaning	Stationary Source	Refinery Vacuum Units (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Apply operational requirements for refinery hot wells and accumulators as well as VOC control requirements for all other types of refinery vacuum-producing devices and systems.
23	SSM 8 Vacuum Trucks and Pipeline Cleaning	Stationary Source	Vacuum trucks VOC	BAAQMD staff recommendation by J.Huynh	Suppress vapors from vacuum trucks cleaning up spills and moving product/sludge/materials around.
24	SSM 8 Vacuum Trucks and Pipeline Cleaning	Stationary Source	Vacuum trucks	Bay Area 2005 Ozone Strategy	Require control of organic emissions from vacuum trucks used to transport sludges in refineries and for cleanup of spills of organic materials.
25	SSM 8 Vacuum Trucks and Pipeline Cleaning	Stationary Source	Pipeline and Storage Tank Degassing	SCAQMD 2007 AQMP	Reduce emissions from pipeline and storage tank degassing by requiring enhanced control technology, increased control efficiency, establishing concentration limits, and expanding the source categories, operations and the capacity (size) of affected equipment. Requires greater than 90% control of degassing equipment by setting an emission limit of 500 ppmv, which is 90% of 5,000 ppmv (the point at which degassing can stop).

26	SSM 8 Vacuum Trucks and Pipeline Cleaning	Stationary Source	Further Study Measure: Further Emission Reductions from Pipeline and Storage Tank Degassing	SCAQMD 2007 AQMP	Reduce emissions from pipeline and storage tank degassing by requiring enhanced control technology, increased control efficiency, establishing concentration limits, and expanding the source categories, operations and the capacity (size) of affected equipment.
27	SSM 8 Vacuum Trucks and Pipeline Cleaning	Stationary Source	Further Study Measure: Vacuum Trucks	BAAQMD staff recommendation by S. Winer	Reduce emissions from vacuum tricks used to transfer organic liquids within the District.
28	SSM 9 Cement Plants	Stationary Source	Mineral Products	Bay Area 2005 Ozone Strategy \TIAX	This measure would control NOx emissions from mineral processing facilities like lime and cement kilns through adoption of a cement kiln rule and/or elimination of exemptions in other NOx rules.
29	SSM 10 Coke Calcining	Stationary Source	Limit Emissions of Sulfur Dioxide from Coke Calcining by Requiring a minimum of 80% sulfur capture	BAAQMD staff recommendation by Van Buren	Implement South Coast measure requiring a minimum of 80% sulfur capture which is more restrictive than current District allowance.
30	SSM 11 Open Burning	Area Source	Open Burning	SJVAPCD 2007 Ozone Plan	Incentives measures to reduce the on-field burning of agricultural waste.
31	SSM 11 Open Burning	Area Source	Prescribed Burning	SJVAPCD 2007 Ozone Plan	Provide incentives to compost or mulch plant products that would be burned to reduce fire hazards.
32	SSM 11 Open Burning	Area Source	Open Burning Biomass Incentive)	SJVAPCD 2007 Ozone Plan	Reduce open burning by offering incentives to dispose of or compost biomass.
33	SSM 11 Open Burning	Stationary Source	Open Burning	SJVAPCD 2007 Ozone Plan	Rule 4103 (amended 5/17/07): Phases out diseased crop, field crop and orchard removal burning (Section 5.5). Final phase of amendments will phase out burning of vineyard removals, prunings from surface-harvested crops and other materials.
34	SSM 12 Refinery Boilers and Heaters	Stationary Source	Refinery boilers and heaters (2001 SIP process)	Bay Area 2005 Ozone Strategy	Control refinery boilers to 10 ppm with no averaging between units
35	SSM 13 Residential Fan Type Furnaces	Stationary Source	Natural-Gas Fired Fan-Type Central Furnaces and Residential Heaters	SBCAPCD 2007 Clean Air Plan	Reduce NOx limits.

36	SSM 14 Space Heating	Stationary Source	Natural-Gas Fired Fan-Type Central Furnaces and Residential Heaters	MBUAPCD 2008 Air Quality Management Plan	Establish NOx limits for new and replacement installations: 40 nanograms/joule (55 ppm (@ 3% O2).
37	SSM 15 Dryers, Ovens, Kilns	Stationary Source	Asphalt Batch Plant Dryers/Heaters (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Impose NOx limits on asphalt batch plant driers and heaters.
38	SSM 15 Dryers, Ovens, Kilns	Stationary Source	Asphaltic Concrete Dryers	SCAQMD 2007 AQMP	Reduce NOx emissions by retrofitting low-NOx burners and flue gas recirculation (FGR)
39	SSM 15 Dryers, Ovens, Kilns	Stationary Source	Dryers & Dehydrators (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Control NOx emissions from dryers and dehydrators based on Houston's Air Quality Plan
40	SSM 15 Dryers, Ovens, Kilns	Stationary Source	Dryers	SJVAPCD 2007 Ozone Plan	Implement San Joaquin measure which proposed a further study for this source category since the current rule has “maximized the possible emission reductions from this source category.”
41	SSM 15 Dryers, Ovens, Kilns	Stationary Source	Asphaltic Concrete Production	Bay Area 2005 Ozone Strategy \TIAX	This measure would impose NOx and VOC controls on asphalt hot mix plants.
42	SSM 15 Dryers, Ovens, Kilns	Stationary Source	Dryers, Ovens and Furnaces (non-RECLAIM)	SCAQMD 2007 AQMP	Implement South Coast measure that proposes to target devices that have not been subjected to BACT. SCAQMD BACT guideline for this source category is the use of low-NOx burners and a basic NOx limit of 30 ppmv @ 3% O2
43	SSM 16 Glass Furnaces	Stationary Source	Glass Melting Furnaces (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Set NOx limits for glass melting furnaces based on ARB achievable performance standards and Texas limits.
44	SSM 16 Glass Furnaces	Stationary Source	Glass Melting	SJVAPCD 2007 Ozone Plan	Implement similar measure to the San Joaquin glass furnace rule (4354) in 2008 to designate their previous NOx limit as the "Tier 2" limit (4.0 lb NOx/ton glass, 24-hr average), with a lower "Tier 3" limit (1.5 lb NOx/ton glass, 30-day average) effective in 2014. San Joaquin also adopted VOC, CO and SO2 limits.
45	SSM 18 Revise Reg 2 Rule 5 New Source Review for Air Toxics	Stationary Source	Back-up diesel generators	Bay Area 2005 Ozone Strategy	Control back-up diesel generators, especially in communities of color, through consideration of cumulative impacts of multiple generators locating in one area.

Mobile Source Measures

CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	Cleaner Vehicle Incentives	Bay Area 2005 Ozone Strategy	Free tolls and "green" parking spots for natural gas and other alternatively fueled vehicles
2	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	Encourage Cleaner Fuels	Bay Area 2005 Ozone Strategy	Promote compressed natural gas (CNG) infrastructure.
3	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	Clean Vehicles/Engines/Fuels	Bay Area 2005 Ozone Strategy	Provide incentives for low emission vehicles, engines and fuels in light, medium and heavy duty vehicles.
4	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	Encourage Use of Biodiesel Fuel	Bay Area 2005 Ozone Strategy	Encourage the use of biodiesel fuel in Bay Area fleets.
5	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	MSM-8 Programs to expand use of clean burning fuels.	SJVAPCD 2007 Ozone Plan	Develop and support standards for alternative and low-carbon fuels.
6	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	Incentives for Companies to Use Alternative Fuels	Bay Area 2005 Ozone Strategy	Provide financial incentives for companies to use alternative fuel vehicles.
7	MSM A-1 Promote Clean, Fuel Efficient Vehicles	Mobile Source	T-18 Alternative Fuel Program	SBCAPCD 2007 Clean Air Plan	Support programs such as Innovative Technologies Group` Program, Clean Air Express Expansion, Waterfront Shuttle Service Expansion, Easy Lift Conversion of 5 vans to CNG, Gillig bus refurbishment, AMG bus refurbishment.
8	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids	Mobile Source	Station Car & Low Emission Vehicle Share Program	Bay Area 2005 Ozone Strategy \Jack Faucett Associates	Develop a station vehicle program using low emission vehicles that are leased by residents.
9	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids	Mobile Source	Neighborhood Electric Vehicles	Bay Area 2005 Ozone Strategy \Jack Facuett Associates	Provide electric vehicles for use by neighborhood residents.
10	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids	Mobile Source	Driving Change Program	BAAQMD staff recommendation by S. Michael	Voluntary program where Bay Area resident measure their vehicle greenhouse gas emissions, implement greenhouse gas reductions goals, and improve driving behavior.

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11	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids	Mobile Source	Motor Vehicle Operation and Maintenance Education Program	Bay Area 2005 Ozone Strategy	Educate people regarding the detrimental effects of motor vehicles and how to reduce emissions from vehicles through proper maintenance and operation.
12	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids; MSM C-2 Lawn & Garden Equipment	Mobile Source	All Mobile Source Incentive Programs	SMAQMD 2008 Draft 8-hour SIP	Implement four programs for on-road vehicles and off-road equipment including: ONMS-LD-1 (ONMS-LD-2). Light Duty Early Retirement/ ONMS-HD-1 (ONMS-HD-5). SECAT-Like Program/SMAQMD OFMS-SI-1 Garden Equip/ SMAQMD OFMS-HD-1.Off-road CI
13	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids; MSM A-4 High-Emitting Vehicles	Mobile Source	Incentives for Hybrid Vehicles	Bay Area 2005 Ozone Strategy	Provide financial incentive to purchase hybrid vehicles
14	MSM A-2 Zero Emission Vehicles and Plug-in Hybrids	Mobile Source	Increased Marketing of Hybrid Vehicles	Bay Area 2005 Ozone Strategy	Encourage automobile manufacturers to increase the marketing of light-duty hybrid vehicles.
15	MSM A-3 Green Fleets	Mobile Source	Clean Fuels for Fleets (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Require fleets to use clean fuels.
16	MSM A-3 Green Fleets	Mobile Source	Green Contracting	SJVAPCD 2007 Ozone Plan	Encourage or require government agencies and private businesses to give preference to contractors/vendors who use low emission processes and equipment.
17	MSM A-3 Green Fleets	Mobile Source	Reduce Bus Emissions	Bay Area 2005 Ozone Strategy	Require reduced emissions from existing bus fleet and purchase of low emission buses.
18	MSM A-3 Green Fleets	Mobile Source	Private Clean Fleet Requirements	Bay Area 2005 Ozone Strategy \TIAX	Require light-duty, medium-duty, and heavy-duty private fleets to meet a combination of fleet average emission reductions and purchasing requirements that would lead to lower emissions.
19	MSM A-3 Green Fleets	Mobile Source	Green Contracting Ordinance	Bay Area 2005 Ozone Strategy	Local government ordinance would require contractors to procure and operate low-emission vehicles.
20	MSM A-3 Green Fleets	Mobile Source	Green Fleets	SJVAPCD 2007 Ozone Plan	Encourage or require government agencies and private businesses to upgrade existing fleets with low-emission vehicles.
21	MSM A-3 Green Fleets	Mobile Source	Voluntary Mobile Source Emission Reduction Programs (VMEP)	HGB 8-hour attainment plan	Support programs such as: Public and Private Sector Clean Fuel Fleet 2.0, Commute Solutions (5 measures), Pooled Ownership of Vehicles.
22	MSM A-3 Green Fleets	Mobile Source	Require Trucks to Use Clean Fuels	Bay Area 2005 Ozone Strategy	Require trucks to use alternative fuels, such as biodiesel, aqueous diesel and ultra-low sulfur diesel fuel.
23	MSM A-3 Green Fleets	Mobile Source	Expand Hybrid Bus Fleet	Bay Area 2005 Ozone Strategy	Encourage the use of electric hybrid buses by transit operators.

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24	MSM A-3 Green Fleets	Mobile Source	Public Clean Fleet Requirements	Bay Area 2005 Ozone Strategy /TIAX	Require light-duty, medium-duty, and heavy-duty public fleets to meet a combination of fleet average emission reductions and purchasing requirements that would lead to lower emissions.
25	MSM A-4 High Emitting Vehicles	Mobile Source	Light-duty Vehicle Retirement Program	Bay Area 2005 Ozone Strategy	Implement a light-duty vehicle early retirement program. Focus on gross polluters. Incentives are a potential implementation mechanism.
26	MSM A-4 High Emitting Vehicles	Mobile Source	Pursue Approaches to Clean Up the Existing Heavy-Duty Off-Road Equipment Fleet (Compression Ignition Engines) – Retrofit Controls	Bay Area 2005 Ozone Strategy	Require retrofit or replacement of heavy-duty off-road diesel engines and equipment.
27	MSM A-4 High Emitting Vehicles	Mobile Source	SECAT-Like Program	SMAQMD 2008 Draft 8-hour SIP	Implements an incentive program for NOx reduction in heavy duty vehicles similar to that created by the SECAT program. Incentives distributed on a dollar per ton basis. Amount of reductions is also based on options available to the specific truck.
28	MSM A-4 High Emitting Vehicles	Mobile Source	T-13 Accelerated Retirement of Vehicles	SBCAPCD 2007 Clean Air Plan	Vehicle Buyback Program for vehicles between 1996-1999 and 2004+
29	MSM A-4 High-Emitting Vehicles	Mobile Source	Heavy Duty Gasoline Trucks	SJVAPCD 2007 Ozone Plan	Incentives to reduce emissions by replacing older heavy-duty gasoline trucks with new trucks.
30	MSM A-4 High-Emitting Vehicles; A-1 Cleaner Vehicles & Equipment	Mobile Source	Increased Smoking Vehicle Enforcement	Bay Area 2005 Ozone Strategy \ENVIRON	Use remote sensing to identify high emitters and then require vehicle owners to have their vehicles undergo inspection and repairs.
31	MSM A-4 High-Emitting Vehicles; A-1 Cleaner Vehicles & Equipment	Mobile Source	AB923 Light-Duty Vehicle High-Emitter Identification Program 2007 MOB-5	SCAQMD 2007 AQMP	Implements a control strategy for purposes of identifying high emitting medium-duty vehicles and augmenting the current Smog Check program applicable to gasoline- and diesel-powered vehicles between 8,500 and 14,000 lbs. gross vehicle weight (GVW).
32	MSM A-4 High-Emitting Vehicles; A-1 Cleaner Vehicles & Equipment	Mobile Source	Smoking Vehicle Photo Radar	Bay Area 2005 Ozone Strategy \ENVIRON	Use remote sensors to identify smoking vehicles and then notify smoking vehicle owners to encourage them to repair their vehicles.
33	MSM A-4 High-Emitting Vehicles; A-1 Cleaner Vehicles & Equipment	Mobile Source	Off-cycle testing of vehicles	BAAQMD staff recommendation by A. Fanai	Design a program that requires off-cycle testing of vehicles using remote sensing devices (RSD).
34	MSM A-4 High Emitting Vehicles	Transportation	Removal of Older, Higher-Polluting Light Duty Vehicles.	SDAPCD 8-hour Attainment Plan	Remove older vehicles permanently.

35	MSM A-4 High-Emitting Vehicles	Mobile Source	Buy vehicles older than 1975	VCAPCD 2007 Air Quality Plan	Implement program to purchase older vehicles.
36	MSM A-4 High-Emitting Vehicles	Mobile Source	Motorcycles	SJVAPCD 2007 Ozone Plan	Incentives to reduce emissions from older on-road motorcycles.
37	MSM A-4 High-Emitting Vehicles	Mobile Source	Vehicle Inspection/ Maintenance	HGB 8-hour attainment plan	Yearly treadmill-type testing for pre-1996 vehicles and computer checks for 1996 and newer vehicles.
38	MSM A-4 High-Emitting Vehicles	Mobile Source	AB923 Light-Duty Vehicle High-Emitter Identification Program 2007 MOB-5	SCAQMD 2007 AQMP	Applies only to those vehicles identified as high emitters that are off-cycle to California's Smog Check Program. The benefits to the program would be the off-cycle repair or vehicle retirement occurring prior to the next smog check emission test.
39	MSM A-4 High-Emitting Vehicles	Mobile Source	Expand retirement program	BAAQMD staff recommendation by A. Fanai	Expand the passenger vehicle retirement program.
40	MSM A-4 High-Emitting Vehicles	Mobile Source	Expansion of VBB	Public Suggestion by B. Beveridge	Expansion of Vehicle Buy Back program to include larger commercial vehicles
41	MSM A-4 High-Emitting Vehicles	Mobile Source	Automated Speed Enforcement for Heavy Duty Vehicles and lower speed limit	Bay Area 2005 Ozone Strategy \Jack Faucett Associates	Utilize technology such as radar equipped traffic cameras to enforce speed limits for heavy-duty vehicles on highways.
42	MSM A-4 High-Emitting Vehicles	Mobile Source	Accelerated retirement program	VCAPCD 2007 Air Quality Plan	Identify high emitting vehicle age groups and develop a program to remove them from use.
43	MSM A-4 High-Emitting Vehicles	Mobile Source	Passenger and Medium Duty Trucks (M-TRAN-7)	SJVAPCD 2007 Ozone Plan	Replace between 10% and 25% of the highest emitting vehicles each year from 2008 to 2020- approximately 2,948 vehicles per year. If funding does not become available, replace between 1% and 2% each year from 2008 to 2020.
44	MSM B-1 HDV Fleet Modernization	Mobile Source	Heavy-Duty Engine ECM Recalibration	Bay Area 2005 Ozone Strategy \TIAX	Heavy duty vehicles that are MY1994-1998 can be reflashed to the lowest MY2005 emission standards.
45	MSM B-1 HDV Fleet Modernization	Mobile Source	Heavy-Duty Gasoline Catalyst Replacement	Bay Area 2005 Ozone Strategy \ENVIRON	Replace noncatalyst and two-way catalyst heavy-duty gasoline truck engines with engines certified with three-way catalysts.
46	MSM B-1 HDV Fleet Modernization	Mobile Source	Heavy-Duty Gasoline Catalyst Retrofits	Bay Area 2005 Ozone Strategy \ENVIRON	Retrofit noncatalyst and two-way catalyst heavy-duty gasoline trucks with three-way catalysts.

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47	MSM B-1 HDV Fleet Modernization; MSM B-2 Low NOx Retrofits for In-Use Engines	Mobile Source	On Road Heavy Duty Diesel Trucks (M-TRAN-3)	SJVAPCD 2007 Ozone Plan	Replace 75% of 1991-1993 model year trucks in 2008 and 2009 (approximately 3,000 trucks per year) and beginning in 2010, each year replace 10% of the remaining pre-2007 truck fleet that are at least 3 years from replacement.
48	MSM B-1 HDV Fleet Modernization; MSM B-2 Low NOx Retrofits for In-Use Engines; MSM B-3 Efficient Drive Trains	Mobile Source	Pursue Approaches to Clean Up the Existing Truck/Bus Fleet	Bay Area 2005 Ozone Strategy	Develop a comprehensive strategy to reduce emissions from heavy-duty fleet including retrofit devices and certified engines to reduce PM, reflashing engine control modules, improved on-board diagnostics, and ordinances and hardware to reduce idling emissions.
49	MSM B-2 Low NOx Retrofits for In-Use Engines	Mobile Source	Catalytic Converter Replacement Program	Bay Area 2005 Ozone Strategy \TIAX	Implement an incentive program to replace the catalyst in light duty vehicles and trucks including SUVs.
50	MSM C-1 Construction and Farming Equipment	Mobile Source	Incentives for Clean (Construction) Vehicle Use	Bay Area 2005 Ozone Strategy \TIAX	Incentives to repower, retrofit or use alternative fuels in off-road diesel construction vehicles.
51	MSM C-1 Construction and Farming Equipment	Mobile Source	Electric Forklift Purchases and Forklift Rentals	Bay Area 2005 Ozone Strategy \TIAX	Require new forklift purchases and forklift rentals to be electric for forklifts with lift capacity equal to or greater than 8,000 lbs.
52	MSM C-1 Construction and Farming Equipment	Mobile Source	Require Zero Emission Forklifts Where Feasible – Lift Capacity	Bay Area 2005 Ozone Strategy	Reduce emissions from forklift fleet by adopting low emission standards for new forklifts and retrofitting existing forklifts.
53	MSM C-1 Construction and Farming Equipment	Mobile Source	Zero Emission Off Road Equipment	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives to convert off-road diesel equipment to zero emissions.
54	MSM C-1 Construction and Farming Equipment	Mobile Source	Electric Tow Tractors	Bay Area 2005 Ozone Strategy	Require tow tractor manufacturers to only supply zero and near-zero exhaust emission equipment.
55	MSM C-1 Construction and Farming Equipment	Mobile Source	Electric Floor Care Sweepers, Scrubbers and Varnishers	Bay Area 2005 Ozone Strategy	Require all new walk-behind sweepers/scrubbers/varnishers to be electric.
56	MSM C-1 Construction and Farming Equipment	Mobile Source	Spark-Ignited Agricultural Forklifts Exempt from State LSI (Large Spark Ignition) Regulations (M-IND-2)	SJVAPCD 2007 Ozone Plan	Targets agricultural spark-ignited forklifts that cannot be retrofitted with a certified emission control device as per ARB's future fleet emissions standards. Involves replacing 90% of forklifts with spark-ignited forklifts and 10% with electric by 2011.
57	MSM C-1 Construction and Farming Equipment	Mobile Source	Compression Ignited Agricultural Engines	SJVAPCD 2007 Ozone Plan	Incentivize replacement of existing ag diesel engines with cleaner diesel engines and/or electric motor and existing ag pump.
58	MSM C-1 Construction and Farming Equipment	Mobile Source	Fleet Rules for Construction Equipment	Bay Area 2005 Ozone Strategy \TIAX	Limit the vintage of off-road equipment used in construction projects.

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59	MSM C-1 Construction and Farming Equipment	Mobile Source	Diesel Fired Agricultural Tractors (M-IND-1)	SJVAPCD 2007 Ozone Plan	Replacement of only Tier 0 Tractors beginning in 2008 with a 10% per year penetration because this addresses the highest polluting tractors and replaces them with the cleanest technology available.
60	MSM C-1 Construction and Farming Equipment	Mobile Source	Construction and Mining Equipment (M-IND-5)	SJVAPCD 2007 Ozone Plan	Targets engines in construction and mining equipment. Replacement of 10 compacters, 10 crawler dozers, 10 earth movers, 10 motor graders, and 10 scrapers each year from 2008 to 2023.
61	MSM C-1 Construction and Farming Equipment	Mobile Source	Electric Burden and Personnel Carriers/Turf Trucks	Bay Area 2005 Ozone Strategy	Require all new burden, personnel carriers and turf trucks to be electric.
62	MSM C-2 Lawn & Garden Equipment	Mobile Source	Leaf Blowers	BAAQMD staff recommendation by Eric Pop	Regulation for leaf blowers which would reduce hydrocarbon, CO, PM and fugitive (Please see http://www.arb.ca.gov/msprog/mailouts/msc0005/msc0005.doc)
63	MSM C-2 Lawn & Garden Equipment	Mobile Source	Clean Air Fund	VCAPCD 2007 Air Quality Plan	Funds project such as clean air educational programs, solar pool heaters for local schools, cleaner boat engines, a lawn mower exchange program, and compressed natural gas transit buses and trash trucks.
64	MSM C-2 Lawn & Garden Equipment	Mobile Source	Replace Standard Gasoline Powered Mowers with Electric Ones	Bay Area 2005 Ozone Strategy	Implement a rebate program to encourage the retirement of old gasoline mowers.
65	MSM C-2 Lawn & Garden Equipment	Mobile Source	Electric Lawnmower Incentives	SJVAPCD 2007 Ozone Plan	Clean Green Yard Machine Program - Electric lawnmower exchange incentive program - discount coupons and lawnmowers are sold.
66	MSM C-2 Lawn & Garden Equipment	Mobile Source	Zero Emission Lawn and Garden Incentive (Residential) OFMS-SI-2	SMAQMD 2008 Draft 8-hour SIP	Implements a year round continuous incentive program for the replacement of residential spark ignited gasoline- powered mowers with electric or zero-emission alternatives. Primarily targets lawn mowers.
67	MSM C-2 Lawn & Garden Equipment	Mobile Source	Electric Lawn Mower Trade-In Rebate Program	VCAPCD 2007 Air Quality Plan	Provides participants with either $200 vouchers to purchase cordless electric lawn mowers or $129 vouchers to purchase corded, plug-in electric lawn mowers.
68	MSM C-2 Lawn & Garden Equipment	Mobile Source	Expanded Exchange Program	SCAQMD 2007 AQMP	Promotes accelerated turn-over of in-use small off-road engines (SORE) and recreational outboard engines through expanded voluntary exchange programs. Explores mandatory turnover / replacement of older equipment.
69	MSM C-2 Lawn & Garden Equipment	Mobile Source	Off Road Portable Engines Initiative (M-IND-7)	SJVAPCD 2007 Ozone Plan	Replace all Tier 0 and Tier 1 engines with the cleanest available engines between 2008-12, then replace all Tier 2 engines with Tier 3 engines between 2012-16, and finally replace all Tier 3 engines with Tier 4 engines between 2016-20.

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70	MSM C-2 Lawn & Garden Equipment	Mobile Source	Expand lawn mower engine retirement incentive program to include an incentive to retire ALL two-stroke gasoline-fueled engines.	BAAQMD staff recommendation by Van Buren	Implement lawn mower retirement and replacement program. Replace lawn mowers with electric powered mowers and additional two-stroke engines (i.e., blowers, chainsaws, weed trimmers, etc).
71	MSM C-2 Lawn & Garden Equipment	Mobile Source	2007 MOB-02 Expanded Exchange Program	SCAQMD 2007 AQMP	Expand the existing lawn mower/leaf blower exchange program by increasing the number of exchange events and available funding for these programs. The District will also explore the potential of a mandatory turnover and replacement of older SORE.
72	MSM C-2 Lawn and Garden Equipment	Mobile Source	Replace leaf blowers/ solar powered leaf blowers	Public Suggestion By Pam Molsick	Ban leaf blowers or replace with quieter and cleaner engines. For example, powered by light weight mini solar panels built into the system.
73	MSM C-3 Recreational Vessels	Mobile Source	MSM-5 Programs to reduce emission or accelerate retirement of high emitting vehicles, boats, and lawn and garden equipment.	SJVAPCD 2007 Ozone Plan	Incentives for scrapping high-emitting cars and trucks and replacing gas-powered lawn mowers with electric mowers.
74	MSM C-3 Recreational Vessels	Mobile Source	Tug/Push Boat Activity Reductions	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives for tug and push boats to not operate auxiliary engines on Spare the Air days.
75	MSM C-3 Recreational Vessels	Mobile Source	Incentives for Newer Boats and Engines	Bay Area 2005 Ozone Strategy \TIAX	Measure would provide a financial incentive to consumers to purchase a 4-stroke instead of a 2-stroke marine engine in new recreational boats.
76	MSM C-3 Recreational Vessels	Mobile Source	Reduce Marine Vessel Emissions	Bay Area 2005 Ozone Strategy \TIAX	Reduce emissions from existing harbor craft and ocean going fleets with cleaner engines and/or cleaner fuels. This control measure would be implemented through incentives.

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Transportation Control Measure

CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	TCM A-1 Improve Local and Area wide Bus Service; MSM A-3 Green Fleets	Transportation	Transit - Buses, Fleet Expansion.	SCAQMD 2007 AQMP	Support Buses, Fleet Expansion
2	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Bus Pullouts in Curbs for Passenger Loading	VCAPCD 2007 Air Quality Plan	Provide bus pullouts in curbs, or queue jumper lanes for passenger loading and unloading.
3	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Improve Public Transit Service (New Service and Operations to Increase Ridership)	MBUAPCD 2008 Air Quality Management Plan	Increase and add new services that enable or directly increase transit in vanpooling and shuttles.
4	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Bus Turnouts with Bus Shelters, and Other Bus Stop Amenities.	VCAPCD 2007 Air Quality Plan	Expand Bus Turnouts with Bus Shelters, and Other Bus Stop Amenities.
5	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Transit Improvements-New Fixed Guide way Systems or Equipment.	SJVAPCD 2007 Ozone Plan	Self-explanatory.
6	TCM A-1 Improve Local and Area wide Bus Service	Transportation	T-5 Public Transportation.	SBCAPCD 2007 Clean Air Plan	Bus, shuttle, and train expansion.
7	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Transit Improvements-Conventional Transit Service Improvements.	SJVAPCD 2007 Ozone Plan	Public awareness campaigns to increase ridership, new transit services, network expansions or streamlining, roadway improvements, and improvements in fare structure and policies.
8	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Regional Express Bus Program.	VCAPCD 2007 Air Quality Plan	Purchase of buses to operate regional express bus service.
9	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Intermodal Transfer Facilities - Bus Stations & Transfer Facilities, New.	SCAQMD 2007 AQMP	Support new Intermodal Transfer Facilities.

10	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Transportation Center Operations Building and Customer Waiting Room including Landscaping, Outdoor Seating, and Security Lighting.	VCAPCD 2007 Air Quality Plan	Self-explanatory.
11	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Intermodal Transfer Facilities - Bus Stations & Transfer Facilities, Expansion.	SCAQMD 2007 AQMP	Support expansion of Intermodal Transfer Facilities.
12	TCM A-1 Improve Local and Area wide Bus Service	Transportation	Transit - Express Bus ways, Bus Rapid Transit, and Dedicated Bus Lanes.	SCAQMD 2007 AQMP	Support Express Bus ways, Bus Rapid Transit, and Dedicated Bus Lanes.
13	TCM A-2 Improve Local and Regional Rail Service	Transportation	Intermodal Transfer Facilities - Rail Stations, Expansion.	SCAQMD 2007 AQMP	Support Rail Station Expansion.
14	TCM A-2 Improve Local and Regional Rail Service	Transportation	System Management - Railroad Consolidation Programs.	SCAQMD 2007 AQMP	Support Railroad Consolidation Programs.
15	TCM A-2 Improve Local and Regional Rail Service	Transportation	Transit - Rail Track, Capacity Expansion of Existing Lines.	SCAQMD 2007 AQMP	Support Capacity Expansion of Existing Lines.
16	TCM A-2 Improve Local and Regional Rail Service	Transportation	Transit - Rail Track, New Rolling Stock Acquisition.	SCAQMD 2007 AQMP	Support New Rolling Stock Acquisition.
17	TCM A-2 Improve Local and Regional Rail Service	Transportation	Intermodal Transfer Facilities - Rail Stations, New.	SCAQMD 2007 AQMP	Support the Construction of new rail stations; commuter rail stations.
18	TCM A-2 Improve Local and Regional Rail Service	Transportation	High-Speed Rail	SJVAPCD 2007 Ozone Plan	Use high-speed rail to transport goods and people through the Valley.
19	TCM A-3 Improve Ferry Service	Transportation	Transit Expansion	VCAPCD 2007 Air Quality Plan	Transit Expansion to Serve Mall – Demonstration Project.
20	TCM B-1 Implement Freeway Performance Initiative	Transportation	Get real-time traffic information to drivers	VCAPCD 2007 Air Quality Plan	Self-explanatory.

21	TCM B-1 Implement Freeway Performance Initiative	Transportation	Use dynamic message signs to direct/smooth speeds during incidents	VCAPCD 2007 Air Quality Plan	Self-explanatory.
22	TCM B-1 Implement Freeway Performance Initiative	Transportation	Regional route marking systems to encourage underutilized capacity	VCAPCD 2007 Air Quality Plan	Encourage travel on local roads and arterials by better route marking to show alternatives.
23	TCM B-1 Implement Freeway Performance Initiative; MSM C-2 Lawn & Garden Equipment	Transportation	Information-based Strategies - Intelligent Transportation Systems/Control System Computerization.	SCAQMD 2007 AQMP	E.g.: Traffic management and intelligent transportation systems. Implement Information based Strategies for Intelligent Transportation Systems/Control System Computerization.
24	TCM B-1 Implement Freeway Performance Initiative	Transportation	Expand Traffic Signal Coordination System	VCAPCD 2007 Air Quality Plan	Expand Traffic Signal Coordination System.
25	TCM B-1 Implement Freeway Performance Initiative	Mobile Source	Ramp Meters	Bay Area 2005 Ozone Strategy \Jack Faucett Associates	Re-evaluate the traffic volumes that trigger ramp-metering lights because the meters sometimes force cars to stop unnecessarily.
26	TCM B-1 Implement Freeway Performance Initiative	Transportation	Internet provided road and route information	VCAPCD 2007 Air Quality Plan	Reduce travel on highly congested roadways by providing accessible information on congestion and travel.
27	TCM B-1 Implement Freeway Performance Initiative	Transportation	Minimize impact of construction on traveling public. Have contractors pay when lanes are closed as an incentive to keep lanes open.	VCAPCD 2007 Air Quality Plan	Self-explanatory.
28	TCM B-1 Implement Freeway Performance Initiative	Transportation	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)	VCAPCD 2007 Air Quality Plan	Identify key freeway bottlenecks and take accelerated action to mitigate them.
29	TCM B-1 Implement Freeway Performance Initiative	Transportation	Adaptive traffic signals and signal timing	VCAPCD 2007 Air Quality Plan	Promote adaptive traffic signals and signal timing.

30	TCM B-1 Implement Freeway Performance Initiative	Transportation	Site-Specific Transportation Control Measures	VCAPCD 2007 Air Quality Plan	This measure could include geometric or traffic control improvements at specific congested intersections or at other standard locations. E.g. programming left turn signals at certain intersections to lag the green time for through traffic.
31	TCM B-1 Implement Freeway Performance Initiative	Transportation	Reduce Traffic Congestion at Major Intersections	VCAPCD 2007 Air Quality Plan	This measure implements a wide range of traffic control techniques designed to facilitate smooth, safe travel through intersections: signalization, turn lanes, median dividers, and grade separations.
32	TCM B-1 Implement Freeway Performance Initiative	Transportation	Coordinate Traffic Signal Systems	VCAPCD 2007 Air Quality Plan	This measure implements and enhances synchronized traffic signal systems to promote steady traffic flow at moderate speeds.
33	TCM B-1 Implement Freeway Performance Initiative	Transportation	Signal Synchronization	MBUAPCD 2008 Air Quality Management Plan	Promote projects which would coordinate traffic signals and reduce the amount of vehicle emissions associated with congested (slow) speeds.
34	TCM B-1 Implement Freeway Performance Initiative	Transportation	Develop Intelligent Transportation Systems	VCAPCD 2007 Air Quality Plan	Promote a variety of technological applications intended to produce more efficient use of existing transportation corridors.
35	TCM B-1 Implement Freeway Performance Initiative	Transportation	Electronic Fare Boxes.	VCAPCD 2007 Air Quality Plan	Promote Electronic Fare Boxes.
36	TCM B-1 Implement Freeway Performance Initiative	Transportation	Information-based Strategies - Real-Time Rail, Transit, or Freeway Notification Systems.	SCAQMD 2007 AQMP	Implement Information-based Strategies such as: Real-Time Rail, Transit, or Freeway Notification Systems.
37	TCM B-1 Implement Freeway Performance Initiative	Transportation	Automatic Vehicle Location and Data Terminals.	VCAPCD 2007 Air Quality Plan	Implement Automatic Vehicle Location and Data Terminals.
38	TCM B-1 Implement Freeway Performance Initiative	Transportation	T-7 Traffic Flow Improvement.	SBCAPCD 2007 Clean Air Plan	Implement Cross-town Freeway Project. Various route/avenue interchanges and intersections and signal Synchronization.
39	TCM B-1 Implement Freeway Performance Initiative	Transportation	Traffic flow Improvements-Freeway/Incident Management.	SJVAPCD 2007 Ozone Plan	Redesign of traffic flow to reduce congestion, incident management programs, and ramp metering.
40	TCM B-1 Implement Freeway Performance Initiative	Transportation	Traffic Flow Improvements to Reduce Emissions.	SDAPCD 8-hour Attainment Plan	Traffic Flow Improvements mostly consist of traffic signal improvements to reduce idling and associated emissions.

41	TCM B-1 Implement Freeway Performance Initiative	Transportation	Traffic flow Improvements-Signalization Systems and Improvements.	SJVAPCD 2007 Ozone Plan	Reduce or avoid congestion and bottlenecks. Measure includes traffic signalization and improvements.
42	TCM B-2 Improve Transit Efficiency and Use	Transportation	Operational Intelligent Transportation Systems.	MBUAPCD 2008 Air Quality Management Plan	Intelligent Transportation Systems typically improve traffic flow, and reduce stop and go traffic and its associated increased air pollution. Eg: Advanced Traveler Information System.
43	TCM B-2 Improve Transit Efficiency and Use	Transportation	Smartcard Upgrade.	VCAPCD 2007 Air Quality Plan	Support Smartcard Upgrade.
44	TCM B-2 Improve Transit Efficiency and Use	Transportation	Expand regional transit connection ticket distribution.	VCAPCD 2007 Air Quality Plan	Support interchangeability of transit ticket.
45	TCM B-2 Improve Transit Efficiency and Use	Transportation	Pricing-Subsidies and Discounts-Regional Transit.	SJVAPCD 2007 Ozone Plan	Support Pricing-Subsidies and Discounts for Regional Transit.
46	TCM B-2 Improve Transit Efficiency and Use	Mobile Source	Encourage mass transit literacy.	Public Suggestion by Charlie Cameron	Encourage mass transit literacy.
47	TCM B-2 Improve Transit Efficiency and Use	Transportation	Expand Transit Maintenance Facility to Accommodate System Expansion	VCAPCD 2007 Air Quality Plan	Expand Transit Maintenance Facility to Accommodate System Expansion.
48	TCM B-2 Improve Transit Efficiency and Use	Transportation	Financial Incentives, Including Zero Bus Fares.	VCAPCD 2007 Air Quality Plan	Provide financial incentives or other benefits, such as free or subsidized bus passes and cash payments for not driving, in lieu of parking spaces for employees who do not drive to the workplace.
49	TCM B-2 Improve Transit Efficiency and Use; TCM A-1 Improve Local and Area wide Bus Service	Transportation	Expansion of Public Transportation Systems.	VCAPCD 2007 Air Quality Plan	Expand and enhance existing public transit services.
50	TCM B-3 Bay Area Express Lane Network	Transportation	High Occupancy Toll (HOT) Lanes and Pricing Alternatives.	SCAQMD 2007 AQMP	Construct High Occupancy Toll (HOT) Lanes and Implement Pricing Alternatives.
51	TCM B-4 Goods Movement Improvements and Emission Reduction Strategies; LUM 1 Goods Movement	Mobile Source	Inland Port Infrastructure	SJVAPCD 2007 Ozone Plan	Incentives to explore options to provide linkages between ports and other modes of transportations, such as by train for the delivery of goods.

52	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Alternative Work Arrangements/Hours-Telecommuting/Telework	SJVAPCD 2007 Ozone Plan	Flexible work schedules are designed to reduce congestion by redistributing vehicle travel to reduce congestion during peak commute times. E.g.: flexible work times, compressed work-weeks, and telecommuting.
53	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Ridesharing-Park-and-Ride for Carpool/Vanpool	SJVAPCD 2007 Ozone Plan	This category includes support for all forms of local and regional HOV and ride-sharing programs. This includes shuttle and vanpool service.
54	TCM C-1 Support Voluntary Employer-based Trip Reduction Program	Transportation	Expanded Transportation Demand Management	MBUAPCD 2008 Air Quality Management Plan	This TCM consists of expanding or increasing existing TDM efforts beyond existing Area-Wide Transportation Demand Management (TDM) being implemented in the Air Basin include: Public promotion and incentives for alternatives to single occupant vehicle travel that include transit, vanpooling, carpooling, bicycling, walking and telecommuting; • Public promotion of voluntary programs by employers to reduce their employees' travel by single occupant vehicle; • Public incentives for employer trip reduction programs; • Provision of on-line alternative travel information and rideshare match lists; and • Public funding for emergency guaranteed ride home services for registered users of alternatives to commuting by single occupant vehicle.
55	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Encourage merchants and employers to subsidize the cost of transit for employees	VCAPCD 2007 Air Quality Plan	Provide outreach and possible financial incentives to encourage local employers to provide transit passes or subsidies to encourage less individual vehicle travel.
56	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Trip-Reduction Ordinances	SDAPCD 8-hour Attainment Plan	Focus on addressing weekday commute trips.
57	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Employer-Based Transportation Management Plans	SDAPCD 8-hour Attainment Plan	This measure was combined with the Shared-Ride Services measure to form a more comprehensive measure, the "Ridesharing" TCM.
58	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Ridesharing-Vanpool/Bus pool Programs	SJVAPCD 2007 Ozone Plan	Support for all forms of local and regional HOV and ride-sharing programs. This includes shuttle and vanpool service.
59	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Employers provide vehicles to carpoolers for running errands or emergencies	VCAPCD 2007 Air Quality Plan	Employers provide vehicles for word-day errands.

60	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Regional Rideshare Program.	VCAPCD 2007 Air Quality Plan	Implement a Regional Rideshare Program.
61	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Preferential parking for carpoolers.	VCAPCD 2007 Air Quality Plan	Provide free, covered, near-building or similar incentives to carpoolers.
62	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Transit - Shuttles and Para transit Vehicles, Fleet Expansion.	SCAQMD 2007 AQMP	Expand Shuttles and Para transit Vehicles, Fleet Expansion.
63	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	One Expansion Para transit Van.	VCAPCD 2007 Air Quality Plan	Expand Para transit Vans.
64	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Reduce SOV Commute Travel.	Public Suggestion by TRANSDEF	Reduce everyday SOV commute travel demand by providing economic incentives at both trip ends for alternative transportation modes, including carpool, bike, walking and transit. Also by, mandates and ordinances.
65	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Transit-New Shuttle and/or Feeder Services.	SJVAPCD 2007 Ozone Plan	Includes new transit services and network expansions or streamlining.
66	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	T-2 Employer-Based TDM Program.	SBCAPCD 2007 Clean Air Plan	City-County TDM Program.
67	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	T-1 Trip Reduction Program.	SBCAPCD 2007 Clean Air Plan	Trip reduction program for affected jurisdictions.
68	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Travel Demand Management-Voluntary Employer Trip Reduction Programs.	SJVAPCD 2007 Ozone Plan	Involves various employer-offered incentives for non-SOV commute options such as standardized public transit, transportation allowances, incentives for not using parking spaces, ridesharing incentives, etc.
69	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	8.2.3 Expanded Employer Based Trip Reduction (formerly M-TRAN-1).	SBCAPCD 2007 Clean Air Plan	Incentivize employees to use alternative transportation on 60% of work days, and gets 20% participation.
70	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Commute solutions.	VCAPCD 2007 Air Quality Plan	Expand parking cash out programs (i.e. the Commuter Choice Program). It provides for benefits that employers can offer to employees to commute to work by methods other than driving alone.

71	TCM C-1 Support Voluntary Employer-Based Trip; A-4 Trip Reduction / Alternative Modes	Mobile Source	Travel Demand Management-Mandatory Employer Trip Reduction Programs.	SJVAPCD 2007 Ozone Plan	Implement Mandatory Employer Trip Reduction Programs.
72	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Pricing-Subsidies and Discounts-Employer Based.	SJVAPCD 2007 Ozone Plan	Includes subsidized public transit, transportation allowances, and incentives for not using parking spaces, ridesharing incentives, shuttle services, and facilities for walkers and bicyclists. Limited to voluntary employer-based programs and incentives.
73	TCM C-2 Implement Safe Routes to Schools and Safe Routes to Transit	Transportation	Involve school districts to encourage walking to school.	VCAPCD 2007 Air Quality Plan	Decrease vehicle emissions due to school trips by reducing these trips through education and outreach programs.
74	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Credits and incentives for carpoolers.	VCAPCD 2007 Air Quality Plan	Implement program to incentive more carpooling.
75	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Guaranteed ride home.	VCAPCD 2007 Air Quality Plan	Implement a guaranteed ride home program.
76	TCM C-3 Promote Rideshare Services and Incentives	Transportation	T-4 Area Wide Ridesharing.	SBCAPCD 2007 Clean Air Plan	County Rideshare Program.
77	TCM C-3 Promote Rideshare Services and Incentives	Transportation	High Occupancy Vehicle (HOV) Lanes.	SDAPCD 8-hour Attainment Plan	Development a more robust HOV/Managed Lanes network.
78	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Subscription Services	VCAPCD 2007 Air Quality Plan	Free van services to provide transportation for the elderly, handicapped or other individuals who have no access to transportation.
79	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Internet ride matching services.	VCAPCD 2007 Air Quality Plan	Provide match-lists, route info, hours and contact information over the internet to assist individuals in joining or developing carpools.
80	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Shared-Ride Services	SDAPCD 8-hour Attainment Plan	SANDAG and APCD are partners in the support of Ride Link (www.ridelink.org), the regional transportation assistance program, charged with providing shared ride services and education to employers and individuals on all ridesharing and biking options.
81	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Car sharing.	Bay Area 2005 Ozone Strategy	Encourage expanded car sharing programs.
82	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Ridesharing-Programmatic (Regional).	SJVAPCD 2007 Ozone Plan	Includes support for all forms of local and regional ride-sharing programs.
83	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Work-Related Trip Reduction Program.	Bay Area 2005 Ozone Strategy	Enhance existing Regional Ridesharing Program, currently part of the RTP (Track 1 program) based upon the 2001 RTP Blueprint.

84	TCM C-3 Promote Rideshare Services and Incentives	Transportation	HOV Improvements - HOV Bypasses, Connectors, and New Interchange with Ramp Meters.	SCAQMD 2007 AQMP	Restrict certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles. Such as, HOV Bypasses, Connectors, and New Interchange with Ramp Meters.
85	TCM C-3 Promote Rideshare Services and Incentives	Transportation	HOV Improvements - New HOV Lanes, With New Facility Projects.	SCAQMD 2007 AQMP	Restrict certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles.
86	TCM C-3 Promote Rideshare Services and Incentives	Transportation	HOV Improvements - New HOV Lanes, Extensions, Additions To Existing Facilities	SCAQMD 2007 AQMP	Construction of roads or lanes for use by passenger buses or high occupancy vehicles.
87	TCM C-3 Promote Rideshare Services and Incentives	Transportation	Purchase vans for vanpools.	VCAPCD 2007 Air Quality Plan	Purchase a specified number of vans for use in employee commute travel.
88	TCM C-3 Promote Rideshare Services and Incentives	Transportation	HOV Facilities.	SJVAPCD 2007 Ozone Plan	This measure includes ride-share matching, shuttle and vanpool service, and transportation coordinators networks.
89	TCM C-4 Conduct Public Outreach and Education	Transportation	Telecommuting (Spare the Air).	Bay Area 2005 Ozone Strategy	Promote telecommuting.
90	TCM C-4 Conduct Public Outreach and Education	Transportation	Automobile Maintenance Organization	Bay Area 2005 Ozone Strategy \TIAX	Participating light and medium-duty cars and trucks would be provided maintenance that would ensure emission benefits above and beyond the current Smog Check program.
91	TCM C-4 Conduct Public Outreach and Education	Transportation	T-17 Telecommunication	SBCAPCD 2007 Clean Air Plan	Promote telecommuting.
92	TCM C-4 Conduct Public Outreach and Education	Transportation	Telecommunications-Teleconferencing.	VCAPCD 2007 Air Quality Plan	Encourage the use of teleconferencing in place of motor vehicle use where appropriate.
93	TCM C-4 Conduct Public Outreach and Education	Transportation	Information-based Strategies Marketing and Promotion of Rideshare and Intermodal Activities	SCAQMD 2007 AQMP	Provide information on rideshare services.
94	TCM C-4 Conduct Public Outreach and Education	Transportation	Modifications of Work Schedules.	VCAPCD 2007 Air Quality Plan	Implement alternate work schedules that flex the scheduled shift time for employees. Encourage the use of flexible or staggered work hours to promote off-peak driving and accommodate the use of transit and carpooling.
95	TCM C-4 Conduct Public Outreach and Education	Transportation	Alternative Work Schedules.	VCAPCD 2007 Air Quality Plan	Enables workers to choose their own working hours within certain constraints. Flextime provides the opportunity for employees to use public transit, ridesharing, and other non-motorized transportation.

96	TCM C-4 Conduct Public Outreach and Education	Transportation	Flexible Work Schedules.	SDAPCD 8-hour Attainment Plan	Implemented by the Ride Link program. Ride Link staff work with employers and employees to create programs for offering alternative work arrangements (such as flex time and teleworking) to reduce commute trips and peak hour traffic congestion.
97	TCM C-4 Conduct Public Outreach and Education	Transportation	Voluntary No Drive Day Programs.	VCAPCD 2007 Air Quality Plan	Conduct voluntary no drive day programs during the ozone season through media and employer based public awareness activities.
98	TCM C-4 Conduct Public Outreach and Education	Transportation	Telecommunications-Telecommuting.	VCAPCD 2007 Air Quality Plan	Encourage the use of telecommuting in place of motor vehicle use where appropriate.
99	TCM C-4 Conduct Public Outreach and Education	Transportation	T-19 Public Education.	SBCAPCD 2007 Clean Air Plan	Outreach on Work Programs, Bicycle Video, Local Regulations for Electric Vehicles.
100	TCM C-4 Conduct Public Outreach and Education	Transportation	Area wide Public Awareness Programs.	VCAPCD 2007 Air Quality Plan	Conduct ongoing public awareness programs throughout the year to provide the public with information on air pollution and encourage changes in driving behavior and transportation mode use.
101	TCM C-4 Conduct Public Outreach and Education	Transportation	T-3 Work Schedule Changes.	SBCAPCD 2007 Clean Air Plan	Flexible Work Hours.
102	TCM C-4 Conduct Public Outreach and Education	Transportation	Spare the Air Program	SMAQMD 2008 Draft 8-hour SIP	Public Awareness and education program to reduce vehicle trips, year round public education with an episodic ozone reduction element during the summer ozone season. Including: website, daily regional air quality forecasting, etc.
103	TCM C-4 Conduct Public Outreach and Education	Mobile Source	Expand Network (Spare the Air).	Bay Area 2005 Ozone Strategy	Expand STA network and evaluate STA survey data to determine program effectiveness and potential enhancements.
104	TCM C-4 Conduct Public Outreach and Education	Transportation	Re-routing of trucks on ozone days.	VCAPCD 2007 Air Quality Plan	Re-route trucks on ozone days.
105	TCM C-4 Conduct Public Outreach and Education	Transportation	Scheduling of arterial and highway maintenance	VCAPCD 2007 Air Quality Plan	Consider coordinating scheduling of arterial and highway maintenance to exclude ozone action days if the maintenance activities require lane reductions on heavily utilized arterials and highways.
106	TCM C-5 Conduct Public Outreach focused on Smart Driving/Speed Moderation	Mobile Source	Speed Limit Reduction.	HGB 8-hour attainment plan	Reduce speed limit.
107	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bicycles.	Bay Area 2005 Ozone Strategy	Encourage cities and counties to establish special bike streets/boulevards.
108	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bicycle Access and Facilities.	Bay Area 2005 Ozone Strategy	Provide dedicated bike car on BART trains during peak periods.
109	TCM C-1 Support Voluntary Employer-Based Trip Reduction Program	Transportation	Transit Use Incentives.	Bay Area 2005 Ozone Strategy	Encourage the expansion of successful employer-based transit subsidy programs throughout the region.

110	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Class II Bike Lanes.	VCAPCD 2007 Air Quality Plan	Construct Class II Bike Lanes.
111	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bike Racks on Buses.	VCAPCD 2007 Air Quality Plan	Bike racks would be placed on a to-be determined number of buses to increase bicycle travel.
112	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bike racks at work sites.	VCAPCD 2007 Air Quality Plan	Bike racks at work sites.
113	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bike Trail Extensions.	VCAPCD 2007 Air Quality Plan	Bike Trail Extensions.
114	TCM D-1 Improve Bicycle Access and Facilities	Transportation	New and Improved Bicycle Facilities.	MBUAPCD 2008 Air Quality Management Plan	Construct new or improve bicycle facilities in the Air Basin. Bicycle facilities include Class I, II, and III bicycle paths, bicycle parking facilities, etc.
115	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Construct road extensions, including bike lanes.	VCAPCD 2007 Air Quality Plan	Construct road extensions, including bike lanes.
116	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Encouragement of Bicycle Travel.	VCAPCD 2007 Air Quality Plan	Promote bicycle travel to reduce automobile use and improve air quality. Implement Bikeway systems planning, routes for inter-city bike trips to help bicyclists avoid other, less safe facilities. Also, develop and distribute educational materials.
117	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Construct Class I Bike Paths	VCAPCD 2007 Air Quality Plan	Construct Class I Bike Paths.
118	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Non-motorized Facilities - Bicycle Facilities, Expansion	SCAQMD 2007 AQMP	Constrict Bike lanes and street widening.
119	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Non-motorized Facilities - Bicycle Facilities, New	SCAQMD 2007 AQMP	Construct Class I Bike Path.
120	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bicycle Facilities	SDAPCD 8-hour Attainment Plan	Construct bikeway systems..
121	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Paths or Areas Encouraging Non-Motorized Travel	SDAPCD 8-hour Attainment Plan	Implement an extensive network of bicycling facilities, many of which also serve pedestrians.
122	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bicycle/Pedestrian Program	VCAPCD 2007 Air Quality Plan	Fund high priority projects in countywide plans consistent with funding availability.
123	TCM D-1 Improve Bicycle Access and Facilities	Transportation	T-10 Bicycle/Pedestrian	SBCAPCD 2007 Clean Air Plan	Bikeways and various bicycle and pedestrian projects.

124	TCM D-1 Improve Bicycle Access and Facilities	Transportation	Bike/Pedestrian Improvements- Bike Only	SJVAPCD 2007 Ozone Plan	Promote bicycle commuting over SOV travel by providing bicycles, transit bike racks, secure bicycle storage facilities, shower and locker facilities, and bicycle lanes. Programs are implemented by local and regional agencies.
125	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Encouragement of Pedestrian Travel	VCAPCD 2007 Air Quality Plan	Promote public awareness and use of walking as an alternative to the motor vehicle.
126	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Pedestrian and Bicycle Overpasses Where Safety Dictates	VCAPCD 2007 Air Quality Plan	Ongoing implementation as development occurs.
127	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Bike/Pedestrian Improvements- Pedestrian Only.	SJVAPCD 2007 Ozone Plan	Build or expansion of facilities for pedestrians, which include secure walkways and paths, locker facilities, and improvements in pedestrian access to typically high congested areas.
128	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Non-motorized Facilities - Pedestrian Facilities, Expansion.	SCAQMD 2007 AQMP	Expand pedestrian improvements. Including smart, crosswalks, traffic signals, landscaping, etc.
129	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Construct Class I Bike Path and Pedestrian Path.	VCAPCD 2007 Air Quality Plan	Construct Class I Bike Paths and Pedestrian Paths.
130	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Pedestrian Enhancements.	VCAPCD 2007 Air Quality Plan	Build/Expand Pedestrian Enhancements.
131	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Bicycle and Pedestrian Trail Extensions/Facilities.	VCAPCD 2007 Air Quality Plan	Expand Bicycle and Pedestrian Trails/Facilities.
132	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Non-motorized Facilities - Pedestrian Facilities, New.	SCAQMD 2007 AQMP	Build new Pedestrian Facilities.
133	TCM D-2 Improve Pedestrian Access and Facilities	Transportation	Encouragement of Pedestrian Travel.	VCAPCD 2007 Air Quality Plan	Encourage the use of pedestrian travel as an alternative to automobile travel. Promotion of pedestrian travel could be included in air pollution public awareness efforts to remind people of this basic alternative.
134	TCM D-3 Support Local Land Use Strategies	Transportation	Improved Public Transit.	SDAPCD 8-hour Attainment Plan	Increase land use densities and transit ridership in town centers and particular corridors.
135	TCM D-3 Support Local Land Use Strategies	Transportation	Regional Initiatives to Improve Air Quality.	MBUAPCD 2008 Air Quality Management Plan	Efficient land use patterns, improve mobility through reduced congestion, provide accessibility via more efficient transportation modes, improve efficiency of goods movement, and reduce the environmental impact of new development, etc.

136	TCM D-3 Support Local Land Use Strategies	Transportation	Smart Growth Incentives	Public Suggestion by TRANSDEF	Commit a specific percentage of the funds subject to MTC's discretion to Smart Growth incentives, including the Livable Communities program and the Housing Incentive Program.
137	TCM D-3 Support Local Land Use Strategies	Transportation	Intermodal Transfer Facilities - Park & Ride Lots, New.	SCAQMD 2007 AQMP	Build new parking facilities for additional use by transit patrons.
138	TCM D-3 Support Local Land Use Strategies	Transportation	Intermodal Transfer Facilities - Park & Ride Lots, Expansion.	SCAQMD 2007 AQMP	Expand existing parking facilities for additional use by transit patrons.
139	TCM D-3 Support Local Land Use Strategies	Transportation	Transit oriented development.	VCAPCD 2007 Air Quality Plan	Encourage transit oriented development.
140	TCM D-3 Support Local Land Use Strategies	Transportation	Establish Auto Free Zones and Pedestrian Malls.	VCAPCD 2007 Air Quality Plan	Establish auto free zones and pedestrian malls where appropriate.
141	TCM D-3 Support Local Land Use Strategies	Transportation	Incentives for cities with good development practices.	VCAPCD 2007 Air Quality Plan	Provide financial or other incentive to local cities that practice air quality-sensitive development.
142	TCM D-3 Support Local Land Use Strategies	Transportation	Incentives to increase density around transit centers.	VCAPCD 2007 Air Quality Plan	Lower travel by increasing residential and commercial density in areas near transit.
143	TCM D-3 Support Local Land Use Strategies	Transportation	Incentives for cities with good development practices.	VCAPCD 2007 Air Quality Plan	Provide financial or other incentive to cities that practice air quality-sensitive development.
144	TCM D-3 Support Local Land Use Strategies	Transportation	Cash incentives to foster jobs/housing balance.	VCAPCD 2007 Air Quality Plan	Incentives for land use patterns that encourage a balance between jobs and housing.
145	TCM D-3 Support Local Land Use Strategies	Transportation	Trip reduction oriented development.	VCAPCD 2007 Air Quality Plan	Encourage trip reduction oriented development.
146	TCM D-3 Support Local Land Use Strategies	Transportation	Sustainable development.	VCAPCD 2007 Air Quality Plan	Encourage sustainable developments.
147	TCM D-3 Support Local Land Use Strategies	Transportation	Road Surface Restrictions for Motor Vehicles in Metro Areas.	SDAPCD 8-hour Attainment Plan	Implement road surface restrictions for motor vehicles in metro areas. For example: implemented on a limited or recurring temporary basis for certain recreational areas, weekly farmer's markets, etc.

148	TCM D-3 Support Local Land Use Strategies	Transportation	Land Use/Development Alternatives.	VCAPCD 2007 Air Quality Plan	Includes encouraging land use patterns which support public transit and other alternative modes of transportation. In general, this measure would also encourage land use patterns designed to reduce travel distances between related land uses.
149	TCM D-3 Support Local Land Use Strategies	Transportation	Smart Growth.	Bay Area 2005 Ozone Strategy	Encourage implementation of Smart Growth Strategy/Regional Livability Footprint project.
150	TCM D-3 Support Local Land Use Strategies	Transportation	Close certain roads for use by non- motorized traffic.	VCAPCD 2007 Air Quality Plan	Close some roads to all but non-motorized traffic roads during special events, weekends, or certain times of the day.
151	TCM D-3 Support Local Land Use Strategies	Transportation	Programs and Ordinances Facilitating Non-Automotive Travel.	SDAPCD 8-hour Attainment Plan	Implement a program which emphasizes greater reliance on non automotive travel through increased development densities, more mass transit usage, and increased bicycling and walking for transportation.
152	TCM D-3 Support Local Land Use Strategies	Transportation	Incentives to increase density around transit centers.	VCAPCD 2007 Air Quality Plan	Lower travel by increasing residential and commercial density in areas near transit.
153	TCM D-3 Support Local Land Use Strategies	Transportation	Close streets for special events for use by bikes and pedestrians.	VCAPCD 2007 Air Quality Plan	Close streets for special events for use by bikes and pedestrians.
154	TCM D-3 Support Local Land Use Strategies; LUM 2 Indirect Source Review Rule	Transportation	Special Event Controls.	VCAPCD 2007 Air Quality Plan	Require new and existing owners/operators of the special event centers to reduce mobile source emissions generated by their events. A list of optional strategies would be available that reduce mobile source emissions.
155	TCM E-1 Value Pricing Strategies	Mobile Source	Congestion pricing on bridges.	Public Suggestion by TRANSDEF	Implement congestion pricing on bridges: Raise tolls during peak periods. Use surplus revenues to fund transit pass affordability for low income travelers.
156	TCM E-2 Parking Pricing and Management Strategies	Mobile Source	Parking Programs.	Bay Area 2005 Ozone Strategy	Promote parking programs to reduce motor vehicle use. Encourage development that is located and designed in ways that reduce reliance on driving alone.
157	TCM E-2 Parking Pricing and Management Strategies	Transportation	T-8 Parking Management.	SBCAPCD 2007 Clean Air Plan	Implement Residential Parking Program.
158	TCM E-2 Parking Pricing and Management Strategies	Transportation	Preferential Parking for Carpools and Vanpools.	VCAPCD 2007 Air Quality Plan	Encourages public and private employers to provide preferential parking spaces for carpools and vanpools to decrease the number of single occupant automobile work trips. The preferential treatment could include covered parking spaces or nearby spaces.

159	TCM E-2 Parking Pricing and Management Strategies	Transportation	Transit Service Improvements in Combination with Park-and-Ride Lots and Parking Management.	VCAPCD 2007 Air Quality Plan	Local jurisdictions and transit agency improve the public transit system and add new Park-and-Ride facilities and spaces on an as needed basis.
160	TCM E-2 Parking Pricing and Management Strategies	Transportation	Transit-Park-and-Ride at Transit Stations	SJVAPCD 2007 Ozone Plan	Build park-and-ride lots located at the edge of central business districts to promote use of HOVs within typically congested city and business centers, similar to control measure in SJVAPCD 2007 Ozone Plan.
161	TCM E-2 Parking Pricing and Management Strategies	Transportation	Park and ride lots	VCAPCD 2007 Air Quality Plan	Develop, design and implement new Park and Ride facilities in locations where they are needed, similar to control measure in VCAPCD 2007 Air Quality Plan.
162	TCM E-2 Parking Pricing and Management Strategies	Transportation	Park and ride lots serving perimeter counties	VCAPCD 2007 Air Quality Plan	Build Park and ride lots serving perimeter counties, similar to control measure in VCAPCD 2007 Air Quality Plan.
163	TCM E-2 Parking Pricing and Management Strategies	Transportation	T-9 Park-and-Ride Fringe Parking	SBCAPCD 2007 Clean Air Plan	Build park-and- ride lots, similar to control measure in SBCAPCD 2007 Clean Air Plan
164	TCM E-2 Parking Pricing and Management Strategies	Transportation	Park-and-Ride Facilities	SDAPCD 8-hour Attainment Plan	Develop park-and-ride lots, similar to SDAPCD 8-hour Attainment Plan.
165	TCM E-2 Parking Pricing and Management Strategies	Transportation	Parking Cash-Out.	VCAPCD 2007 Air Quality Plan	State law requires certain employers who provide subsidized parking for their employees to offer a cash allowance in lieu of a parking space.
166	TCM E-3 Implement Pricing Reforms	Transportation	Legislative changes to expand authority.	Bay Area 2005 Ozone Strategy	Seek new or expanded legislative authority.
167	TCM E-3 Implement Transportation Pricing Reform	Transportation	Peak-Period Vehicle Restrictions in Downtown Areas.	SDAPCD 8-hour Attainment Plan	Feasible only in high-density portions of compact metropolitan areas with an extensive transit system. The Smart Growth Incentive Program provides funding to cities for infrastructure projects which enhance alternatives to driving in higher density areas.
168	TCM E-3 Implement Transportation Pricing Reform	Mobile Source	Automobile Insurance Charged at Pump or Insurance is Mileage Based.	Bay Area 2005 Ozone Strategy \TIAX	A portion of automobile insurance is incorporated into the price of gasoline which increases the marginal cost of driving, reducing VMT, and encouraging consumers to purchase more efficient vehicles.
169	TCM E-3 Implement Transportation Pricing Reform	Transportation	Pricing-Fees and Charges-In Metro Core.	SJVAPCD 2007 Ozone Plan	Complete restriction to vehicle traffic for certain roadways and portions of the metropolitan area. Includes automobile restricted zones, permanent roadway closures for pedestrian and bicycle use, and roadway closures during peak hours.

170	TCM E-3 Implement Transportation Pricing Reform	Transportation	Raise Fuel Prices.	Bay Area 2005 Ozone Strategy \TIAX	Raises the price of diesel and gasoline fuel by $0.50/gallon during the ozone season.
171	TCM E-3 Implement Transportation Pricing Reform	Transportation	Location Efficient Mortgages.	Bay Area 2005 Ozone Strategy	Promote location efficient mortgages to encourage home purchases near transit.

Land Use & Local Impact Measures

CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	LUM 1 Goods Movement	Mobile Source	Enforce Existing Truck Routes	Bay Area 2005 Ozone Strategy	Provide resources for the enforcement of existing truck routes through consistent monitoring, heavy fines, and other penalties. Get support for regulating illegal truck practices.
2	LUM 1 Goods Movement	Mobile Source	Short Sea Shipping	SJVAPCD 2007 Ozone Plan	Incentives to reduce heavy-duty truck and locomotive vehicle miles traveled through the District by transporting goods by sea between northern and southern California.
3	LUM 1 Goods Movement	Mobile Source	conversion of goods movement vehicles and equipment	Public Suggestion By ALA	Establish a goal of achieving a major conversion of goods movement vehicles and equipment in the region to electric technologies by establishing aggressive targets for vehicle conversion and identifying funding assistance and strategies to help achieve these conversions.
4	LUM 1 Goods Movement	Mobile Source	anti-idling regulations	Public Suggestion By A. Katz.	Enforcement of anti-idling regulations.
5	LUM 1 Goods Movement	Mobile Source	Pursue Approaches to Reduce Land-Based Emissions at Ports	Bay Area 2005 Ozone Strategy	Reduce land-side emissions at ports by preparing an inventory of sources, evaluating emission reductions from existing measures, and proposing additional control measures.
6	LUM 1 Goods Movement	Mobile Source	Route Trucks to Limit Traffic on Residential Streets	Bay Area 2005 Ozone Strategy	Support a community-driven rerouting process to establish new truck routes that limit traffic on residential streets.

7	LUM 1 Goods Movement	Mobile Source	MSM-9 Low emissions specifications for equipment or fuel used for large construction contracts, industrial facilities, shipyards, airports, and public or private vehicle fleets.	SJVAPCD 2007 Ozone Plan	Over $1 billion in state funds will be available to reduce emissions from equipment at ports and from long-haul trucking along major goods movement corridors.
8	LUM 1 Goods Movement	Mobile Source	MSM-3 Diesel idling programs for trucks, locomotive, and other mobile sources	SJVAPCD 2007 Ozone Plan	Implement anti-diesel idling programs to subsidize truck stop equipment that will reduce diesel idling along the main goods movement corridors.
9	LUM 1 Goods Movement	Mobile Source	Smart Way Transport Partnership and the Blue Skyways Collaborative	HGB 8-hour attainment plan	Collaborative, voluntary programs between the EPA and the freight transport industry promoting strategies/technologies for fleet efficiency, highway fueling and idling reduction infrastructure, and renewable, efficient, and alternative energy sources.
10	LUM 1 Goods Movement	Mobile Source	Local Heavy-Duty Diesel Inspection	Bay Area 2005 Ozone Strategy \ENVIRON	Augment truck and bus highway inspections with community-based inspections.
11	LUM 1 Goods Movement	Mobile Source	Reduced Idling of Locomotives	Bay Area 2005 Ozone Strategy \ENVIRON	Require retrofit of locomotives to shut-off while at idle.
12	LUM 1 Goods Movement	Mobile Source	Restrict idling	VCAPCD 2007 Air Quality Plan	Require idle limits for trucks.
13	LUM 1 Goods Movement	Mobile Source	Truck Route in Richmond	Public Suggestion From Richmond – March 12, 2008 meeting	Draft an approved truck route.
14	LUM 1 Goods Movement	Mobile Source	Truck Inspection and Alternative Fuel Infrastructure on the Oakland Army Base	Bay Area 2005 Ozone Strategy	Develop a truck inspection facility and alternative fuel infrastructure on the Oakland Army Base.
15	LUM 1 Goods Movement	Mobile Source	Idling Controls	SDAPCD 8-hour Attainment Plan	Adopt idling controls.
16	LUM 1 Goods Movement	Mobile Source	Regulate Idling Ships and Locomotives	Bay Area 2005 Ozone Strategy	Require reduced emissions from idling ships and locomotives at ports and train terminals.

17	LUM 1 Goods Movement	Mobile Source	Reduce mobile source emissions at the Port of Oakland	Bay Area 2005 Ozone Strategy	Require reduced idling of heavy duty vehicles, reduced NOx and PM emissions from ground support equipment, reduced NOx and PM emissions from trucks, and require electric auxiliary power for ships at the Port of Oakland
18	LUM 1 Goods Movement	Mobile Source	Idling from Construction and Mining Equipment	Bay Area 2005 Ozone Strategy \ENVIRON	Require reduced idling by construction and mining equipment using idling reduction devices or manually turning off equipment.
19	LUM 1 Goods Movement	Mobile Source	Truck Idling Rule and Devices	Bay Area 2005 Ozone Strategy \TIAX	Encourage reduced idling by heavy-duty diesel trucks.
20	LUM 1 Goods Movement	Mobile Source	PM Hot Spots - Localized Control	SCAQMD 2007 AQMP	Control measure seeks to reduce PM emissions in areas where local influence is the main contributor to the overall exposure. This proposed control measure would establish a localized program to supplement the regional approach to address PM hot spots through a cooperative effort with local agencies to reduce emissions from direct sources of PM.
21	LUM 1 Goods Movement; MSM A-4 High-Emitting Vehicles; MSM B-1 HDV Fleet Modernization	Mobile Source	Reduce Particulate Matter From High Polluting Vehicles	Bay Area 2005 Ozone Strategy	Reduce particulate emissions from the worst polluting trucks and other vehicles.
22	LUM 1 Goods Movement	Mobile Source	Limitations on Vehicle Idling	VCAPCD 2007 Air Quality Plan	Limitations to limit extended idling operations of trucks.
23	LUM 2 Indirect Source Review Rule	Mobile Source	Indirect source review	Public Suggestion By TRANSDEF	Conduct review of proposed major trip generating projects, including those that are directly connected to RTP projects, such as freeway interchanges. Mitigate air quality impacts to the maximum extent feasible, such as by limiting parking ratios.
24	LUM 2 Indirect Source Review Rule	Mobile Source	Indirect Source Mitigation Program	Bay Area 2005 Ozone Strategy	Implement program to reduce emissions from indirect sources.
25	LUM 2 Indirect Source Review Rule	Mobile Source	Evaluation of the Air Quality Impacts of New development and Mitigation of Adverse Impacts	VCAPCD 2007 Air Quality Plan	Evaluate the air quality impacts of new development and mitigate any adverse impacts.
26	LUM 2 Indirect Source Review Rule	Mobile Source	Indirect Source Rule for Construction	Bay Area 2005 Ozone Strategy \TIAX	Implement Indirect Source Rule to reduce emissions from construction equipment.
27	LUM 2 Indirect Source Review Rule	Mobile Source	No Idling signs in specific zones	BAAQMD staff recommendation by B. Rudin.	Promote the idea of installing “No Idling” signs in locations that generate truck traffic.

28	LUM 2 Indirect Source Review Rule	Mobile Source	Emission Fee Program for Port-Related Mobile Sources	Bay Area 2005 Ozone Strategy	Imposes fee for port-related mobile sources (e.g., ships, trains, trucks, off-road equipment) and use fees to fund projects to mitigate emissions from these sources.
29	LUM 2 Indirect Source Review Rule	Mobile Source	Emission Reductions from New or Redevelopment Projects	SCAQMD 2007 AQMP	Develop an ISR rule that achieves emission reductions through compliance with CEQA.
30	LUM 2 Indirect Source Review Rule	Mobile Source	Indirect Source Review and Voluntary Developer Mitigation Contact	SJVAPCD 2007 Ozone Plan	Reduce Nox and PM from new development projects, one option for rule compliance is paying a fee to fund projects that will reduce emissions off-site.
31	LUM 2 Indirect Source Review Rule	Mobile Source	IS-2: Operational Indirect Source Rule	SMAQMD 2008 Draft 8-hour SIP	Implement an operational indirect source rule, aimed at reducing emissions associated with new land use development of large commercial, industrial, retail, and residential projects after construction is completed.
32	LUM 2 Indirect Source Review Rule	Mobile Source	IS-1: Construction Mitigation Rule	SMAQMD 2008 Draft 8-hour SIP	Implements a Construction Mitigation Rule (CMR), aimed at reducing off-road construction emissions associated with new land use development of large commercial, industrial, retail, and residential projects.
33	LUM 2 Indirect Source Review Rule	Stationary Source	Diesel-powered equipment at the Port of Oakland	Bay Area 2005 Ozone Strategy	Regulate diesel-powered equipment at the Port of Oakland as point sources of pollution.
34	LUM 2 Indirect Source Review	Stationary Source	Emission Reductions from New or Redevelopment Projects	SCAQMD 2007 AQMP	Reduce emissions related to new residential, commercial, industrial and institutional development, including redevelopment.
35	LUM 4 Land Use Guidelines	Mobile Source	Land use/air quality guidelines	VCAPCD 2007 Air Quality Plan	Guidelines for development that contributes to air quality goals.
36	LUM 4 Land Use Guidelines	Mobile Source	Install air filtration systems in new homes and existing homes near pollution sources in order to improve indoor air quality	Bay Area 2005 Ozone Strategy	Examine indoor air quality and install air filtration systems in new homes and in existing homes near pollution sources in order to improve indoor air quality. People with asthma should especially be provided with such systems.
37	LUM 4 Land Use Guidelines	Mobile Source	Provide landscaped buffer between freeways and residential neighborhoods	Bay Area 2005 Ozone Strategy	Design and develop landscaped buffers with tall trees to protect sensitive receptors from particulate matter generated by diesel vehicles on nearby freeways

38	LUM 5 Reduce Risk from Stationary Sources in Impacted Communities	Mobile Source	School based Emissions data	Public Suggestion From Richmond – March 12, 2008 Meeting	Calculate school based emission reductions.
39	LUM 5 Reduce Risk from Stationary Sources in Impacted Communities	Stationary Source	Ambient air monitoring	Bay Area 2005 Ozone Strategy	Provide air quality monitors in residential communities near refineries.
40	LUM 6 Enhanced Monitoring	Mobile Source	Ships and Trains emissions information	Public Suggestion From Public Meeting	Provide ships and trains emissions and impacts on local residents; include impacted communities on a more local level.
41	LUM 6 Enhanced Monitoring	Mobile Source	Provide Local Benefits	Public Suggestion by ALA	The plan must provide benefits to local communities such as additional resources and mitigation measures to speed up air quality progress.

Energy & Climate Measures

CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	ECM 1 Energy Efficiency	Energy/Climate	Energy Efficiency and Conservation	SCAQMD 2007 AQMP	Provide incentives for businesses or residents to retire and replace older equipment with more energy efficient equipment increasing the effectiveness of existing energy conservation programs.
2	ECM 1 Energy Efficiency	Energy/Climate	Energy Efficiency and Renewable Energy	HGB 8-hour attainment plan	Implement programs that reduce the amount of electricity and natural gas consumed by residential, commercial, industrial, and municipal energy consumers.
3	ECM 1 Energy Efficiency	Energy/Climate	Energy Conservation	SJVAPCD 2007 Ozone Plan	Encourage or require government agencies, businesses, and residents to employ measures to reduce energy consumption in the San Joaquin Valley.
4	ECM 1 Energy Efficiency	Energy/Climate	Promote industrial energy efficiency	BAAQMD staff recommendation by J. Stromberg	District outreach program to let industry know of opportunities for energy savings.
5	ECM 2 Renewable Energy	Energy/Climate	Alternative Energy	SJVAPCD 2007 Ozone Plan	Utilize lower-emitting sources of energy such as electric, solar, and hydrogen fuel cells, to reduce or slow the growth of NOx emissions.
6	ECM 2 Renewable Energy	Energy/Climate	Alternative Energy	SMAQMD 2008 Draft 8-hour SIP	Evaluate potential opportunities to convert green waste, dairy manure, and other forms of biomass (stationary source byproducts) into usable energy for electricity generation, fuel cells, internal combustion (IC) engines or mini-turbines.

7	ECM 3 Urban Heat Island Mitigation	Energy/Climate	Urban Heat Island	HGB 8-hour attainment plan	Decrease the amount of heat absorbed into surfaces like roads, buildings, and parking lots by planting trees for shade and paving or painting surfaces with lighter colored materials or paint.
8	ECM 3 Urban Heat Island Mitigation	Energy/Climate	Urban Heat Island	SCAQMD 2007 AQMP	Develop a program to promote the use of light colored roofing and pavement materials, solar roofing membranes, and increased tree planting.
9	ECM 3 Urban Heat Island Mitigation	Energy/Climate	Heat Island Mitigation	SJVAPCD 2007 Ozone Plan	Adopt methods and practices, such as urban landscaping and highly-reflective roofing & mass planting of trees, to reduce the surface temperatures in urban centers and reduce the need for peak electricity generation.
10	ECM 3 Urban Heat Island Mitigation	Energy/Climate	Urban Heat Island Mitigation Measures	Bay Area 2005 Ozone Strategy	Reduce temperatures in urban areas through tree planting (trees with low VOC emissions) and promotion of building and paving materials with higher reflectivity.
11	ECM 3 Urban Heat Island Mitigation	Energy/Climate	Urban Heat Island	SCAQMD 2007 AQMP	Encourages activities that would lower ambient temperatures in urban areas such as using lighter, more reflective surface materials and increased tree planting.
12	ECM 3 Urban Heat Island Mitigation	Energy/Climate	Urban Heat Island	SMAQMD 2008 Draft 8-hour SIP	Evaluate the potential to develop programs that promote the use of light colored roofing and pavement materials, solar roofing membranes, and increased tree planting in order to lower ambient temperatures in urban areas possibly through CEQA/NSR.
13	ECM 4 Tree Planting	Energy/Climate	Urban Forest Air Quality Development Program	SMAQMD 2008 Draft 8-hour SIP	Support a targeted urban forest management program to reduce total urban forest BVOC emissions by favoring the planting of low emitting trees over medium and high emitting trees in the next 10 years thru Education & Policy Change.
14	ECM 4 Tree Planting	Energy/Climate	Set an amount of canopy tree cover	Bay Area 2005 Ozone Strategy	Require local cities and counties to plant trees at a certain rate in order to achieve a set amount of tree canopy in order to reduce ozone (similar to the Urban Heat Island effect)

Further Study Measures

CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	FSM 1 Adhesives and Sealants	Stationary Source	Adhesives and Sealants	Bay Area 2005 Ozone Strategy	Reduce allowable solvent content of adhesives consistent with SCAQMD limits.

2	FSM 1 Adhesives and Sealants	Stationary Source	Adhesive and Sealant Products	Bay Area 2005 Ozone Strategy	This measure would reduce limits in adhesive categories for which South Coast AQMD Rule 1168 limits are more stringent.
3	FSM 1 Adhesives and Sealants	Stationary Source	Adhesives	SJVAPCD 2007 Ozone Plan	SJVAPCD Rule 4653 (amended 9/20/2007), amendments projected for 3rd quarter of 2010 include lowering the VOC limits for adhesives as well as exploration of including HVLP Spray application requirements.
4	FSM 1 Adhesives and Sealants	Stationary Source	Adhesives and Sealants (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that adhesive and sealant VOC limit rules developed by Sacramento, South Coast and Tehama districts be evaluated for feasibility in other air districts.
5	FSM 1 Adhesives and Sealants	Stationary Source	Adhesives (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Comparable adhesives rule with other Air Districts.
6	FSM 2 Coatings and Solvents	Stationary Source	2000 CAP F8 - Limitations of Solvents Based on Relative Reactivity	Bay Area 2005 Ozone Strategy	Consider the relative reactivity of organic compounds to reduce ozone formation.
7	FSM 2 Coatings and Solvents	Stationary Source	Miscellaneous Industrial Coatings & Solvent Operations (VOC)	Bay Area 2005 Ozone Strategy	SCAQMD Control Measure CTS-10 suggests reduction of VOC emissions from industrial and commercial coating operations.
8	FSM 2 Coatings and Solvents	Stationary Source	Identify Ultra Low VOC Coatings, inks, and adhesives and require their use	BAAQMD staff recommendation By Van Buren	Identify the current use and revise the applicable rules governing the use of coatings so that these ultra-low VOC materials are required in similar applications.
9	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Degreasing/Solvent Cleaning	SMAQMD 2008 Draft 8-hour SIP	Consider lowering VOC content limits in several SMAQMD rules to South Coast district limits. SMAQMD rules 454, 464, 465, 466, 450, 452, 456, 463, and 459 may be affected if lower limits are determined to be feasible and cost effective.
10	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Solvent cold cleaning (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that solvent cold cleaning VOC limits developed by South Coast AQMD be evaluated for feasibility in other air districts.
11	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Degreasing/Solvent Cleaning Operations	Bay Area 2005 Ozone Strategy	Reduce allowable VOC content of cleaning solutions from 50/gl to 25 g/l consistent with the SCAQMD.
12	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Degreasing/Solvent Cleaning	Bay Area 2005 Ozone Strategy	Reduce allowable VOC content of cold cleaners to 25 g/l VOC based on SCAQMD Rule 1171.1.
13	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Solvent Degreasing (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that solvent degreasing rules developed by Sacramento and South Coast districts be evaluated for feasibility in other air districts.

14	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Solvent Cold Cleaning (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Solvent rule comparison with other Air Districts.
15	FSM 3 Solvent Cleaning and Degreasing	Stationary Source	Tighten up Small Container Exemption	BAAQMD staff recommendation by Van Buren	Restructure the performance exemption in 8-16-115 to make stricter. E.g., apply to small containers and/or reduce small container size
16	FSM 4 Cooling Towers	Stationary Source	Emissions from Cooling Towers	Bay Area 2005 Ozone Strategy	Control emissions from cooling towers used in the oil refining process by minimizing leaks of organic liquids into cooling water.
17	FSM 5 Equipment Leaks	Stationary Source	Improved LDAR - More use of FLIR Camera	BAAQMD staff recommendation by Van Buren	Implement leak checking with a FLIR camera. This method has the potential to detect more leaks in less time. By implementing this control measure more leaks can be found and repaired.
18	FSM 5 Equipment Leaks	Stationary Source	More stringent regulation of mobile refuelers	BAAQMD staff recommendation By Van Buren	Require mobile refuelers to use low leakage nozzles. Also, refueling of vehicles not ORVR-equipped should be limited to those vehicles not reasonably able to be refueled at a GDF with Phase II vapor recovery.
19	FSM 5 Equipment Leaks	Stationary Source	Conduct DIAL studies in District and follow-up with rule development	BAAQMD staff recommendation By Van Buren	Evaluate DIAL (Differential Absorption Lidar) technology for use as a remote sensing device for petroleum refinery leak detection Marine vessels which use gasoline, especially pleasure craft, may be refueled at a marina. Require a marina GDF to have Phase II vapor recovery and to have a low leakage rate dispensing nozzle. Phase II vapor recovery would be achieved by requiring the use of a vapor vac system to capture gasoline vapors being displaced from a fuel tank during. The second requirement is the use of a low leakage nozzle when dispensing gasoline into the fuel tank of a marine vessel.
20	FSM 5 Equipment Leaks	Stationary Source	Improved Leak Detection and Repair	SCAQMD 2007 AQMP	Enhance the effectiveness of existing LDAR programs by identifying and repairing leaks sooner and in a manner that is less time consuming and labor intensive and expand the applicability of LDAR programs to areas currently not covered by existing rules such as harbor vessels. For this purpose, the new control measure uses recently developed technology, called optical gas imaging, to detect leaks (Smart LDAR).
21	FSM 5 Equipment Leaks	Stationary Source	Valves and Flanges (2001 SIP process)	Bay Area 2005 Ozone Strategy	Require low emission valves defined as "leak less".
22	FSM 5 Equipment Leaks	Stationary Source	More stringent standards for fixed roof storage and process tanks	BAAQMD staff recommendation By Van Buren	Implement GDF-type tank integrity testing for larger tanks such as those at refineries, bulk terminals and chemical plants.
23	FSM 6 Wastewater from Coke-cutting	Stationary Source	Cooling water from coke cutting operations	Bay Area 2005 Ozone Strategy	Require high pressure water used to remove coke from coking drums to be sent through the refinery wastewater collection and control system to control any VOC's in the water, or to control emissions from the coke cutting process in some other manner.

24	FSM 8 LPG, Propane and Butane tanks/transfer	Stationary Source	Best Modern Practice for oil and gas well devices.	BAAQMD staff recommendation Van Buren	Require Best Modern Practices for oil and gas wells and their devices that intentionally vent natural gas including valve controllers and positioners, actuators, starter motors, and glycol dehydrators
25	FSM 8 LPG, Propane and Butane tanks/transfer	Stationary Source	Storage and Process Tanks	BAAQMD staff recommendation by Van Buren	More Regulation of Stationary Storage and Process Tanks for LPG, Propane, Butane, and other organic compounds that must be stored in pressure tanks when at ambient temperature.
26	FSM 8 LPG, Propane and Butane tanks/transfer	Stationary Source	Prohibit unabated LPG venting	BAAQMD staff recommendation by Van Buren	Require LPG emissions to the atmosphere to be recovered or abated until the tank pressure is near ambient pressure or lower.
27	FSM 10 Cooking	Stationary Source	Require use of seasoned wood for cooking with wood.	BAAQMD staff recommendation by Van Buren	Require use of seasoned wood when wood is used as the source of heat for cooking. Typical devices include wood-fired ovens and char broilers.
28	FSM 11 Magnet Source Measure	Mobile Source	Regulate Port of Oakland Terminals as Point Sources	Bay Area 2005 Ozone Strategy	Measure would regulate terminals at the Port of Oakland as point sources of emissions due to lines of idling trucks at the terminals.
29	FSM 11 Magnet Source Measure	Mobile Source	Rules for slow moving vehicles	Public Suggestion by B. Beveridge	Rules and/or guidelines to increase efficiencies for slow moving vehicles within magnet sources and yards.
30	FSM 11 Magnet Source Measure	Mobile Source	Port of Richmond equipment	Public Suggestion by L. Jones	Clean up of Port of Richmond equipment.
31	FSM 11 Magnet Source Measure	Stationary Source	Magnet Sources	Public Suggestion by A. Katz	Inventories and emission reduction plans for magnet sources, including emissions in and around magnet sources. Work with EPA.
32	FSM 11 Magnet Source Measure	Stationary Source	Emission Budget and Mitigation for General Conformity Projects	SCAQMD 2007 AQMP	Establishes general conformity budgets by source category, requires the portion of emissions exceeding the budgets to be fully offset/mitigated, or an in lieu fee paid after all reasonably available mitigation measures are implemented.
33	FSM 11 Magnet Source Measure	Stationary Source	Emission Budget and Mitigation for General Conformity Projects	SCAQMD 2007 AQMP	A General Conformity determination is required by the federal Clean Air Act (CAA) for federal actions. This measure proposes to establish a percentage of remaining emissions from each source category for each milestone year that will be set aside as emission budgets for projects subject to general conformity, unless certain emissions are explicitly identified in the plan for such purpose. If project emissions exceeded the budgets for the source category, the portion of emissions exceeding the budgets needs to be fully offset/mitigated control. If the mitigation measures are not sufficient to offset the emissions, make a finding of overall air quality benefit and allow mitigation fees in lieu of reductions. Fees will be invested in emission reduction projects within the affected community, to the extent feasible

34	FSM 11 Magnet Source Measure	Mobile Source	Backstop Measures for Indirect Sources of Emission From Ports and Port-Related Facilities 2007 MOB-03	SCAQMD 2007 AQMP	Address emissions from all new and existing stationary and mobile sources at ports and port related facilities, including nonattainment criteria pollutants and toxics emissions, to address adequacy and implementation of port measures and strategies.
35	FSM 13 Enhancements to Energy Measures	Area Source	Residential Water Heaters	SJVAPCD 2007 Ozone Plan	Incentives to replace existing water heaters with electric or tank less models. Replace existing water heaters with electric or tank less models.
36	FSM 13 Enhancements to Energy Measures	Energy/Climate	Xeriscaping	Bay Area 2005 Ozone Strategy	Adapt landscaping (reduction of lawn coverage at residences and institutional grounds) to reduce the need for lawn and garden equipment.
37	FSM 13 Enhancements to Energy Measures	Energy/Climate	Energy Efficiency	SMAQMD 2008 Draft 8-hour SIP	Evaluate possible stationary source conservation management practices and technologies to reduce ozone precursors by reducing energy consumption. Will also examine green certification of energy efficient homes and other buildings.
38	FSM 14 Lubricants	Stationary Source	Lubricants	SMAQMD 2008 Draft 8-hour SIP	Reduce emissions from use of lubricants and related products by either placing an overall emission limit by source, or by limiting VOC content in lubricant formulations at the point of sale and/or use.
39	FSM 14 Lubricants	Stationary Source	Further Study Measure: Lubricants	SCAQMD 2007 AQMP	Reduce VOC emissions from industrial lubricants, a category under solvent operations, over a defined implementation period. Many lubricants and their additives, such as rust and corrosion inhibitors, are at least 50 percent VOC solvents and are believed to emit a significant amount of VOCs. In addition, mineral spirits and kerosene used to dilute lubricants contain traces of benzene, toluene, and xylene, which are all classified as Hazardous Air Pollutants (HAPs) by the EPA and Toxic Air Contaminants (TACs) by the state of California. This is a new source category, so emissions are unknown, as is the technological means to reduce VOC and/or HAPS. This is recommended for further study.

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CAP 2009 Control Strategy Measure Number		Control Measure Type	Potential Control Measure Name	Source of Potential Measure	Description of Potential Control Measure
1	L-1 Cleaner Vehicles & Equipment	Mobile Source	End the Motorcycle Smog Check Exemption	Bay Area 2005 Ozone Strategy \ENVIRON	Require emissions inspections for motorcycles.

2	L-1 Cleaner Vehicles & Equipment	Mobile Source	Smog check program	BAAQMD staff recommendation by A.Fanai	The California Inspection and Maintenance Review Committee have made a number of recommendations to the Legislature for improving the state Smog Check program. (Page 3 of the Committee Report Dated 11/18/2008). Please see: http://www.imreview.ca.gov/reports/2008_final_report_w_cover.pdf
3	L-1 Cleaner Vehicles & Equipment	Mobile Source	NYMA I/M Programs (NYVIP and NYTEST)	NY SIP 8-Hour Ozone	An enhanced I/M emissions test is required annually and with any change of vehicle ownership. Depending on vehicle model year, a NYTEST tailpipe emission test or a NYVIP on-board diagnostics (OBD II) check is required.
4	L-1 Cleaner Vehicles & Equipment	Mobile Source	Support legislation and offer incentives	BAAQMD staff recommendation by A.Fanai	Support annual inspection of older model year vehicles and annual inspection of high mileage vehicles. This measure would require the support of statutory authority.
5	L-1 Cleaner Vehicles & Equipment	Mobile Source	Improve Smog Check	Bay Area 2005 Ozone Strategy \TIAX	Improve current Enhanced Smog Check Program to provide additional emission benefits from light and medium duty vehicles.
6	L-1 Cleaner Vehicles & Equipment	Mobile Source	2-stroke engine prohibition	BAAQMD staff recommendation by Van Buren	To the extent possible, prohibit the operation of 2-stroke engines during the ozone season or on any summer Spare the Air day. This control measure would reduce VOC emissions.
7	L-2 Land Use/Building Standards	Energy/Climate	Establish emissions credits program	Public Suggestion by David Schonbrunn	Establish emissions credits program that awards incentives for implementation of the control measures contained in the CAP, for municipal up building (smart growth), and for attaining regional land use/transportation goals.
8	L-2 Land Use/Building Standards	Energy/Climate	Strong Regional Greenhouse Gas Reduction Targets	Public Suggestion by A. Katz (Breathe California).	Encourage regional greenhouse gas reduction targets.
9	L-4 Trip Reduction / Alternative Modes	Mobile Source	Regulation 13, Trip Reduction Rule	BAAQMD staff recommendation by Van Buren	Lobby the State to allow this type of regulation: Minimum, large employers should have a designated transit coordinator to identify public transit options and assist in connecting carpoolers and vanpoolers.
10	L-4 Trip Reduction / Alternative Modes	Transportation	Control strategy expressed as end points	Public Suggestion by TRANSDEF	Control strategy expressed as end point (such as 1%, 5%, and 10% decrease in VMT) scenarios with the control measures developed to obtain these endpoints
11	L-4 Trip Reduction / Alternative Modes	Transportation	Webinar/webcasting incentives for jurisdictions: assessment of VMT saved and current coverage.	Public Suggestion by TRANSDEF	Webinar/webcasting incentives for jurisdictions: assessment of VMT saved and current coverage.
12	L-4 Trip Reduction / Alternative Modes	Mobile Source	Trip Reduction Ordinances	Public Suggestion By TRANSDEF	Reestablish legislative authority for Trip Reduction Ordinance. Lobby the legislature for the authority to require charges for parking spaces on commercial property, subject to a local parking tax.

Table 2 – Potential Control Measures Not Recommended for 2009 CAP Control Strategy

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A-1 Mobile Source Measures Control Measures Already Addressed/Implemented by the District				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Spare the Air Program Enhancements	Bay Area 2005 Ozone Strategy	Add various elements to the District's summertime Spare the Air program., including the following: • Spare the Air Tonight - Expansion of the STA program to wintertime, to discourage wood burning when high levels of fine particulate are predicted. • Bay Area Clean Air Partnership (BayCAP) - Partnering with business groups and employers to promote voluntary action to reduce air pollution. • Clean Air Cities and Counties - Engaging local governments to educate residents about the STA program and ways to reduce air pollution. • Clean Air Consortium - Partnering with cities, counties and other public agencies to minimize polluting activities on STA days, i.e., postponing activities such as lawn maintenance, building painting, vehicle refueling, etc. • A youth outreach campaign and educational materials. • Pilot programs providing free transit service in selected transit districts on STA days.	Implemented by the District programs.
2	Locomotives (M-TRAN-12)	SJVAPCD 2007 Ozone Plan	Repower 75% of all switch locomotives with Tier II engines by 2012, and then repower 50% of all switch locomotives with Tier III engines by 2015. Repower 25% of line haul locomotives by 2012 and 50% of line-haul locomotives with Tier III engines by 2015.	Implemented by District's Carl Moyer program.
3	MSM-6 Emissions testing and repair/maintenance programs for on-road vehicles.	SJVAPCD 2007 Ozone Plan	ARB regulations mandate an enhanced smog check for on-road vehicles in non-attainment areas. State funds are available to subsidize repairs or scrapping of high-emitting vehicles.	Bay Area is in the Enhanced Program.
4	Community Indicators	Public Suggestion by ALA	Community Indicators: Regional indicators of progress for greenhouse gas reductions in the Bay Area. What the air district could do in its leadership capacity through the Clean Air Plan is to conduct district wide GHG inventory, and track emissions in a timely manner so that the region can assess its progress.	District prepares and updates regional GHG inventory. In addition, Bay Area portal on the ILG website tracks local government actions.

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5	Specific Measures (Spare the Air)	Bay Area 2005 Ozone Strategy	STA outreach to cities, counties, employers, and educational institutions should provide specific lists of measures to be implemented, tailored to specific situations.	Addressed by District Programs.
6	Water Transit Engine Modifications, Alternative Fuels and Propulsion Systems	Bay Area 2005 Ozone Strategy	Provide incentives to reduce emissions from diesel engines in ferries by using improved engine technology, after-treatment and alternative fuels, or through the replacement with alternative propulsion systems.	Addressed by District's grant programs.
7	Incentivize the Replacement of Construction Equipment Engines	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives to replace uncontrolled engines in construction equipment with new equipment meeting current emission standards.	ARB regulation's and BAAQMD's incentives programs.
8	Heavy-duty Diesel Vehicle Retrofit	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives to retrofit heavy-duty diesel vehicles using one of five emission control systems.	Implemented through District Grant Program.
9	Weekend Spare the Air	Bay Area 2005 Ozone Strategy	Citing increased ozone levels on weekends, it was suggested that certain activities that produce ozone precursors be changed to different days of the week or times of day to reduce ozone formation (weekend effect).	Addressed by District Program: STA.

A-2 Stationary Source Control Measures Already Addressed/ Implemented by the District				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Aerospace Coating	Bay Area 2005 Ozone Strategy	Control measure proposes that Aircraft and Aerospace coating standards be consistent with coating rules.	District aerospace coating is regulated by Regulation 8, Rule 29: Aerospace Assembly and Component Coating Operations.
2	Permit Exemptions	Bay Area 2005 Ozone Strategy \TIAX	This measure is based on SMAQMD control measure SN-108. This measure suggests lowering permitting thresholds, conducting inspections to find sources that should have permits, adding permit conditions, and improving enforceability of existing permit conditions.	District permit thresholds for VOC sources are identical to or lower than those for Sacramento, while permit thresholds for NOx sources, except for boilers, are similar to those for Sacramento. The Sacramento analysis concludes there would be little benefit to the Sacramento region from measure.
3	Mandatory Reduction from Stationary Sources on High Ozone Days	Bay Area 2005 Ozone Strategy \TIAX	This measure is based on SMAQMD control measure SN-113.This measure would require large facilities to reduce emissions on days when high ozone levels are expected.	The BAAQMD has implemented controls that comply with current federal and California requirements. Air Pollution Episodic Controls, District Regulation 4.
4	Landfills & Other Waste Disposal/Treatment	Bay Area 2005 Ozone Strategy	This measure would require landfill emissions to be as stringent a level as does SMAQMD.	District landfills are regulated by Regulation 8, Rule 34: Solid Waste Disposal Sites and are as stringent as SMAQMD.

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5	Architectural Coatings	SJVAPCD 2007 Ozone Plan	(Rule 4601, proposed for amendment 4th quarter of 2009): Amendments to this rule will match VOC limits in South Coast's Rule. May include this source category in Expanded Spare-the-Air Day Program or incentivize non-use during the ozone season.	Amendments to Reg 8-3 adopted July 2009.
6	Oxidation Catalyst or 3-way Catalyst on all prime Rich Burn Engines, including LFG and digester gas fueled engines.	BAAQMD staff recommendatio n By Van Buren	Require either an oxidation catalyst or a 3-way catalyst on all prime reciprocating rich burn Otto Cycle spark ignited non- vehicular internal combustion engines. Require small digester-fueled and LFG-fueled IC engines to be abated or be lean burn.	Already implemented by Regulation 9-8.
7	Degreasing Operations	SCAQMD 2007 AQMP	Lower the 50 grams per liter VOC standard in several SMAQMD rules to 25 grams per liter for materials used in general cleaning operations.	BAAQMD rule (solvents).
8	Petroleum Production	Bay Area 2005 Ozone Strategy	This control measure is based on SMAQMD SN-57 and SN-58; it proposes the control of fugitive emissions from oil wells, collection and distribution systems through housekeeping rules, such as dictating frequency of inspection and repair requirements.	District leaks from oil production facilities are limited by Regulation 8, Rule 37: Natural Gas and Crude Oil Production Facilities. Emissions from oil production in the Bay Area are only 0.04 tons VOC/day, this is considered de minimis.
9	Agricultural / Prescribed Burning	Reviewed CAP 2005\TIAX	This measure is based on SMAQMD control measure SN-54. This measure would ban prescribed burning on high-ozone days or spare-the-air days. The control measure proposes making this a regulatory mandate.	Most open burning is prohibited during most summer months, including STA days.
10	Incentives for Micro turbine Engines in Small Power Generation Applications	Bay Area 2005 Ozone Strategy \TIAX	This measure is based on SMAQMD control measure OFMS-89, which incentivizes the purchase of micro turbine engines (i.e., < 500kW) that provide electric generation capability. These engines would replace conventional diesel-powered portable generators.	Implemented by District's Carl Moyer program.
11	Semiconductor Manufacturing Operations	Bay Area 2005 Ozone Strategy	Control measure proposes the incorporation of SCAQMD and PCAPCD standards into BAAQMD semiconductor manufacturing rule.	In the District, these facilities are regulated under Regulation 8, Rule 30. Also due to the nature of change in the semiconductor fabrication industry, sources tend to need new permits routinely, thus triggering BACT.
12	Can and Coil	Bay Area 2005 Ozone Strategy	Control measure proposes the lowering of VOC limits for can and oil coating operations. The VOC limits proposed in this control measure are based on SJVUAPCD's proposed amendments to Rule 4604.	Existing limits in Bay Area Regulation 8, Rule 11: Metal Container, Closure and Coil Coating. This control measure does not suggest emission reductions beyond levels of existing controls for the Bay Area.
13	Electric Utility/Other Gas Turbines	Bay Area 2005 Ozone Strategy /TIAX	This measure based on SMAQMD control measure D14 and D19. This measure would require SCONOx or other technologies that can achieve NOx levels of 2 ppm for large gas turbines used to generate electricity.	In 2006 BAAQMD amended Regulation 9, Rule 9 to incorporate more stringent NOx emission limits for gas turbines.
14	Stationary Gas Turbines	Bay Area 2005 Ozone Strategy	Adoption of SJVUAPCD Rule 4703 (Stationary Gas Turbines) Tier II limits.	In 2006 BAAQMD amended Regulation 9, Rule 9 to incorporate more stringent NOx emission limits for gas turbines.

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15	Graphic Arts	Bay Area 2005 Ozone Strategy	This control measure proposes the coordination of graphic arts printing and coating VOC limits between air districts.	District Regulation 8, Rule 20: Graphic Arts Printing and Coating Operations has limits as stringent as any proposed in this control measure.
16	Aircraft Fuel Transfer into Storage Tanks (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This measure proposes controls over Phase 1 systems (those that control transfer into storage tanks from which aircraft are fueled) or Phase 2 systems (those that control transfer from storage tanks into aircraft).	Phase I systems are already controlled under existing BAAQMD Regulation 8, Rule 7. Aircraft fill configurations are not compatible with vapor recovery configurations.
17	Air Stripping (Soil Decontamination)	Bay Area 2005 Ozone Strategy	This control measure, proposed by SJVUAPCD in their 2002 and 2005 Rate of Progress Plant, seeks further control on VOC emissions from air stripping or soil decontamination.	The District amended Regulation 8, Rule 40: Aeration of Contaminated Soil and Removal of Underground Storage Tanks. Amendments to Rule 40, adopted in December, 1999, made the rule considerably stricter and resulted in estimated emission reductions of 2.6 tons per day.
18	Fluid Catalytic Cracking Units	Bay Area 2005 Ozone Strategy	This control measure, proposed by SJVUAPCD in their 2002 and 2005 Rate of Progress Plant, seeks to control NOx emissions from fluid catalytic cracking units used in oil refining. The Houston SIP was cited as a potential source for a standard for these operations. The Houston SIP includes standards for FCCs, including CO boilers, CO furnaces, and catalyst regenerator vents (30 Texas Administrative Code sections 117.206).	District Regulation 9, Rule 10 applies to boilers, steam generators, and process heaters in refineries and establishes a limit equivalent to 28 ppm.
19	Metal Parts and Products Coating	Bay Area 2005 Ozone Strategy	Reduce the allowable VOC limits for coating metal parts and products in the area of the Sacramento basin that do not have rules.	The VOC limits in SMAQMD Rule 451 are equivalent to those in BAAQMD Regulation 8, Rule 19.
20	Plastic parts coating	Bay Area 2005 Ozone Strategy	Implement an average VOC limit of 4.5 lbs/gal for plastic, rubber and glass surface coating operations.	Existing BAAQMD Regulation 8, Rule 31: Surface Preparation and Coating of Plastic Parts and Products contain a VOC limit for general coatings for plastic parts of 2.8 lbs/gal.
21	Thinning, Surface Preparation and Cleanup Solvents	Bay Area 2005 Ozone Strategy	Implement existing coating thinning standards and wipe cleaning standards in effect in Sacramento in the other non-attainment Sacramento basin districts and reduce allowable VOC limit to 50 g/l.	In October, 2002, BAAQMD amended Regulation 8, Rule 4: General Solvent and Surface Coating Operations, Rule 14: Surface Preparation and Coating of Large Appliances and Metal Furniture, Rule 19: Surface Preparation and Coating of Miscellaneous Metal Parts and Products, Rule 31: Surface Preparation and Coating of Plastic Parts and Products, and Rule 43: Surface Preparation and Coating of Marine Vessels.
22	Petroleum Dry Cleaning	Bay Area 2005 Ozone Strategy /TIAX	This measure would ban use of transfer systems in petroleum dry cleaning.	This measure was adopted as part of a review and overhaul of BAAQMD Regulation 8-17 in March 2009.
23	Refineries	Bay Area 2005 Ozone Strategy	Increase stringency of refinery regulations	District Regulation 8, Rule 5 and Regulation 8, Rule 44.
24	Mandatory Facility Reduction on Spare the Air Days	Bay Area 2005 Ozone Strategy	Reduce facility production so as to reduce air emissions by 20% on Spare the Air days.	The comparable rule is District Regulation 4: Air Pollution Episode Plan. Also, based on the potential for a Spare the Air day as a percentage of operating days, capital costs would be extremely costly.

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25	Boilers, Steam Generators, Process Heaters	SMAQMD 2008 Draft 8-hour SIP	Amend Rule 2.27 (Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters) to incorporate a multi-tiered NOx emission limit.	In 2008 BAAQMD amended Regulation 9, Rule 7 to incorporate multi-tiered NOx limits to boilers, stem generators and process heaters.
26	Distributed Generation	Bay Area 2005 Ozone Strategy	Minimize emissions of NOx and VOC's from near-source electrical generation technologies such as micro turbines, fuel cells, and photovoltaic's through implementation of ARB certification standards (CCR Sections 94200-94214) under new source review policies.	Staff estimates that there are approximately 25 micro turbines operating in the District, 13 of which were permitted by the San Jose Unified School District. All permitted turbines meet the current ARB emission limits.
27	Boilers, Steam Generators and Process Heaters (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that boiler, steam generator and process heater NOx limit rules developed by Sacramento, San Joaquin, and South Coast districts be evaluated for feasibility in other air districts.	In 2008, BAAQMD amended Regulation 9, Rule 7 to implement more stringent NOx emission limits on gas-fired heaters >2 MM BTU/hr.
28	Paper Fabric & Film Coating Operations (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Further reduce VOC emissions from paper, fabric and film coating operations.	The District already controls the coating of paper, fabric and film through Regulation 8, Rule 12: Paper, Fabric and Film Coating Operations. A review of Bay Area facilities that have small emissions reveals no facilities that are exempt under the Bay Area Rule 8-12.
29	Polymeric Foam Product Manufacturing (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Further reduce emissions from polymeric foam product manufacturing.	In 1999, the District adopted Regulation 8, Rule 52: Polystyrene, Polyethylene and Polypropylene Foam Product Manufacturing Operations. Manufacturing of polyethylene and polypropylene polymers is controlled in the District by Regulation 8, Rule 36: Resin Manufacturing.
30	Gasoline bulk terminals and plants	Bay Area 2005 Ozone Strategy	Require backpressure monitors and controls to shut down loading when backpressure exceeds a set standard, set more stringent leak standards, increase enforceability, and lower emission standard.	District Regulation 8, Rule 33 and Rule 39 were amended in 2009.
31	Graphic Arts (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Graphic Arts rule comparison with other Air Districts.	District Regulation 8, Rule 20: Graphic Arts adopted November 2008.
32	Foam Blowing	Bay Area 2005 Ozone Strategy	Control expandable polystyrene molding operations (Styrofoam manufacturing).	District adopted Regulation 8, Rule 52: Polystyrene, Polypropylene and Polyethylene Foam Product Manufacturing Operations.
33	Auto Refinish coatings (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Auto Refinish Coatings rule comparison with other Air Districts.	In 2008 BAAQMD amended Regulation 8, Rule 45 to impose more stringent requirements.
34	Boilers (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Boiler rule comparison with other Air Districts.	In 2008 BAAQMD amended Regulation 9, Rule 6 and Rule 7 to incorporate more stringent NOx emission limits on most boilers, steam generators and process heaters.
35	Plastic Parts and Products Manufacturing	Bay Area 2005 Ozone Strategy	Control emissions from polyester resin operations by the use of transfer efficient spray guns and vapor suppressed resins.	District Regulation 8, Rule 50: Polyester Resin Operations, controls polyester resin operations.

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36	Heaters and Boilers	Bay Area 2005 Ozone Strategy \TIAX	This measure suggests further reduction of NOx emissions of water heaters and boilers of greater than 75,000 btu/hr.	In 2008 the District amended Regulation 9; Rule 6 to incorporate NOx emission limits for heaters up to 2 MM BTU/hr.
37	IC Engines (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	IC Engines rule comparison with other Air Districts.	In 2007 BAAQMD amended Regulation 9, Rule 8 to incorporate stricter NOx emission limits for non-agricultural IC engines.
38	Emission Reductions from Restaurant Operations (VOC, PM10)	Bay Area 2005 Ozone Strategy	Control under-fire char broilers in addition to the existing controls on chain driven char broilers.	In 2007 BAAQMD adopted Regulation 6, Rule 2 to regulate commercial char broilers.
39	Additional NOx Reductions for RECLAIM (NOx)	Bay Area 2005 Ozone Strategy	Implement RECLAIM program's NOx allocations (emission allowances) decline annually until 2003. This measure would reduce NOx allocations for each year from 2003 to 2010.	Several control measures are proposed to reduce NOx in the Bay Area. The Bay Area does not have a RECLAIM program as does South Coast. Reductions are to be achieved on an individual source category bases.
40	Emission Reductions from Petroleum Refinery Flares (All)	Bay Area 2005 Ozone Strategy	This measure requires: (1) development of a refinery flare emission inventory, and (2) if emissions are significant, investigation of control options that could be implemented through MOUs or a rule.	BAAQMD Regulation 12, Rule 11 and 12-12.
41	Storage of Organic Liquids (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	The ARB compared South Coast, Bay Area, Sacramento and San Joaquin organic liquid storage rules and concluded that some emission reductions might be achieved through adoption of SCAQMD Rule 1178 dome requirements and low-vapor pressure liquid controls.	BAAQMD Regulation 8, Rule 5 was amended in 2006.
42	Stationary Gas Turbines (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	The ARB compared South Coast, Bay Area, Sacramento and San Joaquin stationary gas turbine rules and concluded that San Joaquin's' Tier 2 NOx limits are the most stringent and that further inventory assessment is needed for this source category.	In 2006 BAAQMD amended Regulation 9, Rule 9 to incorporate more stringent NOx emission limits for gas turbines.
43	Can and Coil Coating (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Can and Coil Coating Graphic Arts rule comparison with other Air Districts.	BAAQMD Regulation 8, Rule 11: Metal Container, Closure and Coil Coating.
44	Fence line monitoring	Bay Area 2005 Ozone Strategy	Encourage laser detection fence line monitoring at all refineries.	Additional monitoring could be duplicative and might not comply with citing criteria intended to ensure that data is representative. Fence line monitors generally "see" emissions only from those refinery sources located immediately upwind of the monitor. Fence line monitors therefore have limited utility and may not produce results representive of exposures farther downwind.
45	Valve maintenance	Bay Area 2005 Ozone Strategy	Require frequent maintenance at refineries to assure valves, O rings and other equipment are working properly.	BAAQMD Regulation 8, Rule 18.
46	Control of chemical manufacturing (VOC and NOx)	Bay Area 2005 Ozone Strategy	Control pharmaceutical and chemical manufacturing emissions to a level equivalent to SMAQMD Rule 464 and Rule 455 and adopt NOx limits for these operations.	BAAQMD Regulation 8, Rule 24: Pharmaceutical and Cosmetic Manufacturing Operations. The rules require equivalent levels of control.

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47	Adoption of refinery measures	Bay Area 2005 Ozone Strategy	Promptly adopt all refinery control measures and further study measures (especially regarding valves).	Regulation 8-18 and 8-18 were adopted in 2004, Regulation 8-44 was amended and Regulation 12-12 (Refinery Flares) was adopted in 2005
48	Refinery wastewater ponds	Bay Area 2005 Ozone Strategy	Control emissions from refinery wastewater ponds. (Emissions from refinery wastewater systems were studied through further study measure FS-9 from the 2001 Plan.)	FS-9 was completed in 2005 and recommended no amendment to Regulation 8-8 based on high costs and low potential emission reductions.
49	IC Engine non-agricultural	Bay Area 2005 Ozone Strategy	Impose RACT/BARCT NOx limits for spark-ignited IC engines and a 600 ppm NOx limit for diesel engines.	In 2007 BAAQMD amended Regulation 9-8 to incorporate stricter NOx emission limits for non-agricultural IC engines.
50	Cogeneration	Bay Area 2005 Ozone Strategy	Require further NOx controls for engines and turbines used in cogeneration.	In 2006 BAAQMD amended Regulation 9-9 for gas turbines to implement more stringent NOx limits.
51	Incinerators	Reviewed 2009 CAP\TIAX	This measure would impose NOx standards on solid waste incinerators. The SMAQMD measure would require replacement of older incinerators with new models capable of achieving emissions of 60 lbs NOx / million cubic feet of natural gas burned.	BAAQMD Regulation 6 limits particulate emissions from processes like incineration. As a result, there are no household or municipal waste incinerators in the Bay Area.
52	BAAQMD Rule 8-29 Aerospace Coatings	Bay Area 2005 Ozone Strategy	Sacramento suggests changing limits in the BAAQMD aerospace coatings rule to parallel the SMAQMD and SCAQMD rules. For the 2001 Ozone Plan, emissions from aerospace coating were estimated at 0.1 ton/day. The current emission inventory states that 2002 aerospace coating activity accounts for only 0.05 ton/day.	District aerospace coating is regulated by Regulation 8, Rule 29: Aerospace Assembly and Component Coating Operations.
53	Further Emission Reductions from Large VOC Sources (VOC)	Bay Area 2005 Ozone Strategy	Reduce emission for the largest stationary sources within the South Coast air basin. These plans would commit facilities to reduce emissions from those allowed under existing regulations.	Within the District, virtually all source categories are regulated by rules that meet federal RACT and California BARCT requirements. In addition, the plans would be unlikely to meet EPA requirements for SIP submittals.
54	Paper, Fabric and Film	Bay Area 2005 Ozone Strategy	Adopt VOC limits for screen printing and for paper, fabric and film coating in the portions of the Sacramento basin that do not regulate this activity.	The District already controls the coating of paper, fabric and film through Regulation 8, Rule 12: Paper, Fabric and Film Coating Operations. Also Regulation 8, Rule 20: Graphic Arts Printing and Coating Operations and Regulation 8, Rule 4.
55	BAAQMD Rule 8-20 Graphic Arts	Bay Area 2005 Ozone Strategy	Lower the exemption level for graphic arts operations to 60 lbs emissions/mo from 175 lbs emissions/mo. They recommend a VOC limit of 80 g/l for fountain solutions instead of 8%.	Because even very small Bay Area graphic arts operations (30 gallons of inks and other solutions per year or more as per BAAQMD Rule 2-1, or 6.25 lbs VOC/mo) are required to have a permit, and because the Rule 8-20 exemption of 175 lbs/mo typically appears as a condition in the permit, sources in the Bay Area emit less than 175 lb/mo.
56	Can and Coil Coatings (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Reduce allowable VOC emissions from can and coil coating operations.	BAAQMD Regulation 8, Rule 11: Metal Container, Closure and Coil Coating. Bay Area emission inventory only shows 0.07 tons of clean up solvent usage for the can and coil industry.
57	Non-volatile solvents	Bay Area 2005 Ozone Strategy	Implement a Clean and Green program for replacing volatile solvents with non-volatile solvents.	BAAQMD toxics programs.

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58	2000 CAP G3 - Seasonal Limitations on Organic Liquid Storage Tank and Wastewater Separator Cleaning and Refinery Shutdowns	Bay Area 2005 Ozone Strategy	Intermittent, but discretionary activities such as organic liquid tank cleaning, wastewater separator cleaning and vessel depressurization be controlled or conducted outside the ozone season.	BAAQMD Regulation 8-5 was amended in 2006 to limit tank degassing when an ozone excess is predicted.
59	BAAQMD Rule 8-19 Metal Parts Coating	Bay Area 2005 Ozone Strategy	Sacramento suggests that the Bay Area should adopt the same metal parts coating limits as found in Sacramento Rule 451.	Bay Area Regulation 8, Rule 19. Adoption of this suggestion would not produce any emission reductions in the Bay Area.
60	Boilers, Steam Generators and Process Heaters (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Adopt SJVUAPCD Rule 4306 (Boilers, Steam Generators, and Process Heater - Phase III) limits for boilers with a capacity >=5 million Btu/hr	In 2008 BAAQMD amended Regulation 9-7 to incorporate NOx emission limits for gas-fired heaters >2 MM BTU/hr.
61	Emission Reductions from Fugitive Emission Sources (VOC)	Bay Area 2005 Ozone Strategy	Further reduce emissions from fugitive sources through potential controls that could include enhanced inspection and maintenance, leak less valves, vapor recovery, and degassing controls.	BAAQMD fugitive leak rule Regulation. 8, Rule 18
62	Other Gas Turbines	Bay Area 2005 Ozone Strategy	Control NOx emissions from gas turbines to levels consistent with the San Joaquin Valley Unified APCD Rule 4703.	In 2006 BAAQMD amended Regulation 9-9 to incorporate more stringent NOx emission limits for gas turbines.
63	Wipe cleaning and solvent cleaning limits	Bay Area 2005 Ozone Strategy	Sacramento suggests that the Bay Area adopt emission limits in Rule 8-16 as stringent as Sacramento standards for general, medical, electronic and graphic arts cleaning; for adhesive and auto coating remover; and coating equipment cleanup.	District Regulation 8, Rule 16: Solvent Cleaning Operations, which set VOC standards for cold cleaners, and Regulation 8 rules specific to substrates: Rule 4: General Solvent and Surface Coating Operations, Rule 14:Surface Preparation and Coating of Metal Furniture and Large Appliances, Rule 19:Surface Preparation and Coating of Miscellaneous Metal Parts and Products, Rule 31: Surface Preparation and Coating of Plastic Parts and Products, or Rule 43: Surface Preparation and Coating of Marine Vessels, which set VOC standards wipe cleaning, were adopted in October, 2002.
64	Flares (Landfills)	Reviewed CAP 2005\TIAX	Impose BACT-level requirements on existing landfill flares in the Sacramento region.	BAAQMD Regulation. 8, Rule 34,
65	Semiconductor Manufacturing	Bay Area 2005 Ozone Strategy	Increase control efficiency requirements for semiconductor fabrication from 90% to 98.5%.	With the combination of District Rule 8-30 and District BACT policy, there would be no additional emission benefits gained from the implementation this suggested control measure.
66	Gasoline Bulk Plants	Bay Area 2005 Ozone Strategy	Further control of bulk plants by 1) adopting uniform 0.6 lbs VOC/1000 gal loaded standard, 2) adopting a lower (0.08 lbs/1000 gal) standard for bulk plants, and 3) adopting tank seal standards in El Dorado County.	District Regulation 8, Rule 33: Gasoline Bulk Terminals and Gasoline Delivery Vehicles, and Regulation 8, Rule 39: Gasoline Bulk Plants and Gasoline Delivery Vehicles
67	Marine Coatings	Bay Area 2005 Ozone Strategy	Control marine coatings similar to the existing Bay Area and South Coast rules.	Bay Area, Regulation 8, Rule 43: Surface Preparation and Coating of Marine Vessels

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68	Landfills, soil decontamination and wastewater treatment	Bay Area 2005 Ozone Strategy	Collect and control landfill emissions in parts of the Sacramento basin that do not have rules, control wastewater collection and treatment facilities, and control soil decontamination.	District Regulation 8, Rule 34: Solid Waste Disposal Sites, controls emissions from landfills. Regulation 8, Rule 8: Wastewater (Oil-Water) Separators, controls emissions from wastewater separators and emission points in wastewater collection and treatment facilities. Regulation 8, Rule 40: Aeration of Contaminated Soil and Removal of Underground Storage Tanks and Regulation 8, Rule 47: Air Stripping and Soil Vapor Extraction Operations, control emissions from soil decontamination of excavated and in-situ soil. This control measure would not impose any more restrictive limits than those already required in the Bay Area.
69	Bakeries	Bay Area 2005 Ozone Strategy	Lower the exemption limit for bakeries in Sacramento Rule 458 from 100 lbs to 50 lbs and make the rule uniform throughout the Sacramento air basin.	Any oven that requires a permit that is new or modified would be required to meet new source review provisions found in the District new source review rule. Consequently, some Bay Area ovens already are controlled by 95% or more.
70	Cooking-Commercial	Reviewed CAP 2005	Control VOC emissions from chain driven and under-fire commercial broilers.	In 2007 BAAQMD adopted Regulation 6-2 for charbroilers.
71	Large Water Heaters and Small Boilers	Bay Area 2005 Ozone Strategy	Set NOx emission limits of 55 ppmv on large water heaters and small boilers in the range of 75,000 to 400,000 BTUs/hr, and 30 ppmv on units in the range of 400,000 to 1,000,000 BTUs/hr.	In 2008 BAAQMD amended Regulation 9-6 to incorporate NOx emission limits for heaters up to 2 MM BTU/hr.
72	Stationary IC Engines (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This measure has been implemented by SJVUAPCD through amendments to its Rule 4702 which impose BARCT limits on spark-ignited engines.	In 2007 BAAQMD amended Regulation 9-7 for stationary IC engines.
73	Gasoline Transfer (SJVUAPCD)	Bay Area 2005 Ozone Strategy	In September, 2002, SJVUAPCD amended Rule 4622: Transfer of Gasoline into Motor Vehicle Fuel Tanks. The amendments were to satisfy EPA policy requirements.	Bay Area Regulation 8: Rule 7: Gasoline Dispensing Facilities.
74	Large water heaters and small boilers (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that NOx limits for large water heaters and small boilers developed by Santa Barbara APCD be evaluated for feasibility in other air districts.	In 2008 BAAQMD amended Regulation 9-6 to incorporate NOx emission limits for heaters up to 2 MM BTU/hr.
75	Flares (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This measure proposes limits for flares based on based on SJVUAPCD Rule 4311.	District Regulation 12, Rule 11 and Rule 12.
76	Bellows valves	Bay Area 2005 Ozone Strategy	Bellows valves should be required as replacements for existing refinery valves.	District Regulation 8, Rule 18.
77	Boilers, Steam Generators and Process Heaters/Space Heaters	Bay Area 2005 Ozone Strategy	Reduce emissions of NOx by extending existing control limits to boilers with heating capacities in the range between five to ten million BTU per hour.	In 2008 BAAQMD amended Regulation 9-7 to incorporate NOx emission limits for gas-fired heaters >2 MM BTU/hr.
78	Commercial Charbroilers (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD recommended, in their 2002 and 2005 Rate of Progress Plan, control of commercial charbroilers. In March, 2002, the SJVAPCD adopted Rule 4692 to limit VOC and PM from charbroilers.	In 2007 BAAQMD adopted Regulation 6-2 to regulate commercial charbroilers.

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79	Fuel Storage	Reviewed 2000\TIAX	This measure would impose the same level of control on storage tanks in Placer, El Dorado, and Feather River districts as exists in the Yolo-Solano district (2002 amendments to Yolo-Solano Rule 2.21).	BAAQMD Regulation. 8, Rule 5: Organic Liquid Storage.
80	Electric Utilities	Bay Area 2005 Ozone Strategy	Reduce emissions from electric utility boilers comparable to the SJVAPCD, gas turbines comparable with South Coast, and San Joaquin, and reciprocating engines comparable with San Diego rules.	District Regulation 9, Rule 11: Electric Power Generating Boilers. Further measure would result in de minimis emissions reductions.
81	Graphic Arts (ROG and NOx)	Bay Area 2005 Ozone Strategy \TIAX	Control emissions from graphic arts operations by setting lower VOC limits on cleaning solvents.	Implemented 2008.
82	2000 CAP C8 - Draining of Liquid Products / Sumps and Pits	Bay Area 2005 Ozone Strategy	Measure C8 from the 2000 Clean Air Plan recommends investigation of VOC emissions from refinery wastewater systems including drains, sumps and pits or junction boxes.	District Regulation 8, Rule 8 was amended in 2004.
83	Residential Water Heaters (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to further control NOx emissions from residential water heaters.	In 2007 BAAQMD amended Regulation 9-6 to implement a 10 ng/joule emission limit.
84	2000 CAP A3 - Improved Aerospace Coatings Rule	Bay Area 2005 Ozone Strategy	The 2000 Clean Air Plan measure A3 recommends consideration of lower VOC limits for aerospace coating operations.	Bay Area aerospace coating is regulated by Regulation 8, Rule 29: Aerospace Assembly and Component Coating Operations. Also, For the 2001 Ozone Plan, emissions from aerospace coating were estimated at 0.1 ton/day. The current emission inventory states that 2002 aerospace coating activity accounts for only 0.05 ton/day. Emission reductions from this measures would be de minimis.
85	2000 CAP C4 - Vessel Depressurization Rule	Bay Area 2005 Ozone Strategy	The 2000 Clean Air Plan control measure C4 recommends more stringent standards for Bay Area Regulation 8, Rule 10: Process Vessel Depressurization.	Amendments to Regulation 8, Rule 10 adopted January 21, 2004.
86	Graphic Arts Printing and Coating Operations	MBUAPCD 2008 Air Quality Management Plan	Establish solvent content limits for inks, fountain solutions, and clean-up solvents for printing operations emitting 60 pounds or more of VOC per month.	No more stringent than revisions to District Regulation 8-20 adopted Nov, 2008.
87	Spray Booths - Miscellaneous Coatings	MBUAPCD 2008 Air Quality Management Plan	Measure includes 1) reformulated low-VOC or water based coatings and cleanup solvents, 2) alternative operating/cleaning methods, 3) improved transfer efficiencies, and 4) add-on control equipment, using vapor collection with thermal destruction, carbon adsorption, or condensation systems.	No more restrictive than District Regulation 8-51.
88	Cleanup Solvents	MBUAPCD 2008 Air Quality Management Plan	Require low-VOC adhesives/sealants and clean-up solvents and improved adhesive transfer efficiency. Alternatively, add-on emission control equipment could be used.	No more restrictive than District Regulation 8.

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89	Wood Products Coatings	MBUAPCD 2008 Air Quality Management Plan	Require low-VOC coatings and improved adhesive transfer efficiency. Alternatively, add-on emission control equipment could be used.	No more stringent than BAAQMD rule 8-32.
90	Metal Parts and Products Coatings	SCAQMD 2007 AQMP	Require low-VOC coatings and improved adhesive transfer efficiency. Alternatively, add-on emission control equipment could be used.	No more stringent than BAAQMD rule 8-19.
91	HRVOC Requirements	HGB 8-hour attainment plan	The HGB plan contains a control measure that would affects fugitive, cooling tower, and vent gas control and flares, and it establishes an annual emissions cap with a cap and trade program and a short-term, 1200 pounds per hour not-to-exceed limit for each site in Harris County.	An emissions cap for flares is not feasible. Partly considered under 2005 Strategy FS-9, Emissions from Cooling Towers, which is still ongoing, and partially considered under Regulation 12, Rule 12, which requires a reduction in flaring based on casual analysis when flares are used. Fugitive emissions are controlled under Regulation 8, Rule 18, which sets strict concentration limits.
92	Fugitive Emissions from Petroleum Production	MBUAPCD 2008 Air Quality Management Plan	Establish leak limits and requirements for inspection/maintenance programs.	No more stringent than BAAQMD rules 8-10, 28, or others related to petroleum production.
93	Graphic Arts Printing and Coating Operations	SCAQMD 2007 AQMP	This control measure brings Yolo-Solano in line with Sacramento Metropolitan as far as limits and exemptions. Sac Metro currently requires a ROG-content limit of 72 grams per liter for all solvents used in general graphic arts cleaning operations.	BAAQMD implemented a 25 g/l standard for general cleaning in Nov. 2008.
94	Graphic Arts Printing and Coating Operations	SJVAPCD 2007 Ozone Plan	Establishes solvent content limits for inks, fountain solutions, and clean-up solvents for printing operations emitting 60 pounds or more of VOC per month.	No more stringent than revisions to District Regulation 8-20 adopted Nov, 2008.
95	Graphic Arts Printing and Coating Operations	VCAPCD 2007 Air Quality Plan	Revise VCAPCD Rule 74.19 to examine the applicability of the CTG recommended alcohol content limit for fountain solutions.	District Regulation 8, Rule 20.
96	Architectural Coatings	SCAQMD 2007 AQMP	Implements CARB's SCM.	Amendments to 8-3 adopted July 2009.
97	Architectural Coatings	VCAPCD 2007 Air Quality Plan	Revises VCAPCD Rule 74.2, Architectural Coatings, to incorporate the requirements of CARB's revisions to its SCM for architectural coatings.	Consistent with BAAQMD with amendments to Regulation 8-3, adopted July 2009.
98	Petroleum Dry Cleaners	MBUAPCD 2008 Air Quality Management Plan	Require operators of dry cleaning facilities using Stoddard solvent to control VOC emissions by at least 90 percent and includes operating requirements to control fugitive VOC Emissions.	Amendments to 8-17 require the use of closed loop machines which provide emission control in the high 90's. Adopted 3/2009.
99	Surface Coating of Metal Parts and Products	VCAPCD 2007 Air Quality Plan	Reduce VOC emissions from general purpose, single component, air-dry metal coatings and from solvents used for substrate cleaning, spray gun cleaning, and general cleanup.	No more stringent than BAAQMD Regulation 8-19.

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100	Degreasing Operations	MBUAPCD 2008 Air Quality Management Plan	MUAPCD specifies the establishment of a 50 gram/liter VOC limit on the cleaning solution or an airtight/airless cleaning system could be used in lieu of complying with the 50 gram/liter VOC limit.	Similar to the current BAAQMD standard as detailed in Regulation. 8-16, last amended in October 2002
101	Solvent Cleaning Operations	MBUAPCD 2008 Air Quality Management Plan	Establish 25 gram/liter VOC limit on general cleaning applications, cleaning of ink application equipment, and polyester resin application equipment.	No more stringent than current BAAQMD standard.
102	Solvent Cleaning Operations	SCAQMD 2007 AQMP	Lower the 50 grams per liter VOC standard in several SMAQMD rules to 25 grams per liter for materials used in general cleaning operations.	No more stringent than current BAAQMD standard.
103	Solvent Cleaning Operations	SJVAPCD 2007 Ozone Plan	Sets 25 g/l VOC limit as an exemption from control provisions. This is done in the definition of solvent of the rules (Rule 4661, 4662, 4663, as amended 9/20/07).	No more stringent than current BAAQMD standard.
104	Solvent Cleaning Operations	SBCAPCD 2007 Clean Air Plan	The SBAPCD planned to make changes to Rule 321 to revise solvent cleaning machine requirements and add new "general" solvent cleaning requirements to the rule.	None of these revisions are likely to be more stringent than current or anticipated revisions to BAAQMD coating rules.
105	Fixed and Floating Roof Petroleum Storage Tanks	MBUAPCD 2008 Air Quality Management Plan	Lower vapor pressure exemption level to 0.5 psi.	No more stringent than District Regulation 8-5.
106	Solvent Cleaning Operations	VCAPCD 2007 Air Quality Plan	Revise VCAPCD Rule 74.6 to lower VOC limits for solvents used on electronics and electrical components, medical devices, and application equipment, would seek to eliminate several exemptions.	No more stringent than solvent cleaning rules of BAAQMD.
107	Petroleum Refinery Pilot Program	SCAQMD 2007 AQMP	Voluntary program to provide additional compliance flexibility to regulated sources in the Basin. Refineries that choose to participate in the program may seek reduction opportunities either from on-site or off-site VOC sources.	District Regulation 2-9.
108	Degreasing Operations	VCAPCD 2007 Air Quality Plan	Revise VCAPCD Rule 74.6 to lower VOC limits for solvents used on electronics and electrical components, medical devices, and application equipment, would seek to eliminate several exemptions	No more stringent than solvent cleaning rules of BAAQMD.
109	Degreasing Operations	VCAPCD 2007 Air Quality Plan	Revise VCAPCD Rule 74.6.1 to limit vapor degreasing solvents to 25 grams VOC per gallon.	No more stringent than Regulation 8-16 requirements.
110	Automobile Refinishing	MBUAPCD 2008 Air Quality Management Plan	Require high transfer efficiency equipment, lower solvent coatings, or add-on air pollution control equipment to achieve up to 60% emission control from surface preparation, priming, top coating, and equipment cleaning operations.	No more restrictive than Dec. 2008 amendments to Regulation 8-45.

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111	Automobile Refinishing	SCAQMD 2007 AQMP	Implements CARB's SCM for Automotive Coatings.	No more stringent than amendments to Regulation 8-45, adopted Dec 2008.
112	Automobile Refinishing	SDAPCD 8-hour Attainment Plan	Measure based on CARB's SCM for Automotive Coatings.	No more stringent than amendments to Regulation 8-45, adopted Dec 2008.
113	Automobile Refinishing	VCAPCD 2007 Air Quality Plan	Measure based on CARB's SCM for Automotive Coatings.	No more stringent than amendments to Regulation 8-45, adopted Dec 2008.
114	Food Product Manufacturing & Processing Operations	MBUAPCD 2008 Air Quality Management Plan	Establish a VOC limit of 120 grams/liter for general process solvents and 200 grams/liter for sterilization solvents.	All facilities in the District are already controlled to consistent level through existing rules.
115	Solvent Cleaning Operations	VCAPCD 2007 Air Quality Plan	Splits Rule 67.6 (Solvent Cleaning Operations) into two new rules: Rule 67.6.1 (Cold Solvent Cleaning and Stripping Operations) and Rule 67.6.2 (Vapor Degreasing Operations).	The first rule is basically equivalent to BAAQMD Regulation 8-16 requirements. The second rule will retain the requirements of the former rule 67.6.
116	Residential, Natural Gas-Fired Water Heaters (	SJVAPCD 2007 Ozone Plan	Adopt limits in South Coast Rule 1121.	BAAQMD Regulation 9, Rule 6 has already been amended to adopt SCAQMD NOx limits for heaters in this size range.
117	Fiberglass Fabrication/Polyester Resin Use	MBUAPCD 2008 Air Quality Management Plan	Specifies monomer resin content limits and requiring use of vapor suppressants, high transfer techniques, and low-VOC cleanup solvents.	No more stringent than Regulation 8-50.
118	Boilers, Steam Generators and Process Heaters (> 5 MM BTU/hr)	SJVAPCD 2007 Ozone Plan	In SJVAPCD Rule 4320 The NOx limits are: • >5 to ≤20 MM BTU/hr: 9 ppmv, >20 MM BTU/hr: 7 ppmv , oilfield generators have somewhat less stringent limits, refinery units have somewhat more strict limits.	BAAQMD amended Regulation 9-7 to be at least as stringent as SJVAPCD 4320 and other CA air district boiler rules.
119	Boilers, Steam Generators and Process Heaters ((> 5 MM BTU/hr)	SDAPCD 8-hour Attainment Plan	Reduce the current 220,000 therm/yr exemption limit in their boiler rule to 90,000 therm/yr to conform to 1994 CARB guidance.	San Diego's proposal was already incorporated into a previous version of BAAQMD Regulation 9-7. The current version of Regulation 9-7 is significantly more stringent than San Diego's boiler rule.
120	Boilers, Steam Generators and Process Heaters	SBCAPCD 2007 Clean Air Plan	Establish NOx limits for the unregulated size range >2 mm BTU/hr.	BAAQMD has amended Regulation 9-7 to apply the same NOx limits as Santa Barbara for this size range.
121	Boilers, Steam Generators and Process Heaters (600K to 2 MM BTU/hr)	SDAPCD 8-hour Attainment Plan	The proposed rule (http://www.sdapcd.org/rules/wrkshps/ProposedR69-2-1.pdf) prohibits commerce in devices that exceed 30 ppmv NOx (40 ppmv for liquid fuel).	BAAQMD has already adopted the proposed standards in Regulation 9-6 in 2007.
122	Water Heaters and Small Boilers (75K to 2 MM BTU/hr)	MBUAPCD 2008 Air Quality Management Plan	Establish NOx limits for new and replacement devices: 30 ppm @ 3% O2 for 75K to 400K Btu/hr, 55 ppm @ 3% O2 for 400K to 2MM Btu/hr.	BAAQMD has already adopted the proposed standards in Regulation 9-6 in 2007.

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123	Boilers, Steam Generators and Process Heaters (≥2 MM BTU/hr)	MBUAPCD 2008 Air Quality Management Plan	Establish NOx limits for existing devices rated 2MM BTU/hr and higher: 30 ppmv @ 3% O2 for gaseous fuel and 40 ppmv @ 3% O2 for liquid fuel.	BAAQMD has already implemented the proposed standards in Regulation 9-7.
124	Boilers, Steam Generators and Process Heaters (75K to 2 MM BTU/hr)	SJVAPCD 2007 Ozone Plan	Apply current SJVAPCD Rule 4308 NOx limits (which apply only to new sources) as a retrofit requirement.	BAAQMD Regulation 9-6 regulates the same heaters as San Joaquin Rule 4308 and also applies the NOx standards only to new heaters. It would not be possible to enforce a retrofit requirement that would apply to heaters <2 MM BTU/hr because these devices do not require permits or registration. They are found in every home and most businesses. Consequently, implementation of the measure is not feasible.
125	IC Engines	SBCAPCD 2007 Clean Air Plan	Santa Barbara amended Rule 303 in 2008 to addressed CARB, EPA concerns.	BAAQMD Regulation 9-8 is more stringent than Santa Barbara's 2008 amendment of Rule 303.
126	Residential, Natural Gas-Fired Water Heaters (	SDAPCD 8-hour Attainment Plan	Prohibit commerce in devices that do not meet a NOx limit of 10 ng/J.	The proposed standard has already been adopted in BAAQMD Regulation 9, Rule 6.
127	Solid Fuel-Fired Boilers, Steam Generators & Process Heaters	SJVAPCD 2007 Ozone Plan	Reduce NOx limits in Rule 4352.	BAAQMD Regulation 9, Rule 7 already applies to solid-fueled devices and applies the lowest NOx limit (40 ppmv) to be examined by San Joaquin.
128	School Boiler Incentives 2-5 MM BTU/hr	SJVAPCD 2007 Ozone Plan	Provide incentives to schools to help them comply with 30 ppmv NOx limit already adopted in Rule 4307.	BAAQMD Regulation 9, Rule 7 applies NOx limits to small boilers that are found in schools. BAAQMD has not previously offered financial incentives to comply with prohibitory rules and no school district has requested such incentives.
129	Stationary Gas Turbines	SJVAPCD 2007 Ozone Plan	San Joaquin Rule 4703(amended 9/20/07) adopts more stringent NOx limits than the amended (2006) BAAQMD Regulation 9, Rule 9; this control measure proposes that the BAAQMD adopt SJVAPCD NOx limits.	The 2006 amendment of BAAQMD Regulation 9-9 will be fully implemented in 2012. The Bay Area's Regulation 9, Rule 9 imposes the most stringent limits feasible at this time.
130	Stationary Gas Turbines	SDAPCD 8-hour Attainment Plan	Adopt SDAPCD Rule 69.3.1 (amended 8/3/07).	The 2007 workshop draft (http://www.sdapcd.org/rules/wrkshps/R69-3-1.pdf) does not reduce NOx emission limits below the level required by BAAQMD Regulation 9, Rule 9.
131	Large Water Heaters and Small Boilers (75K to 1 MM BTU/hr)	SCAQMD 2007 AQMP	Establish NOx limits for devices rated 75,000 to 1 MM BTU/hr.	BAAQMD regulates this size category in Regulation 9-6.
132	Soil Decontamination Operations	SJVAPCD 2007 Ozone Plan	Adopt SJVAPCD Rule 4651 requirements for containment of soil contaminated above 1000 ppm, and explicit prohibition of the use of contaminated soil for alternative daily cover at landfills.	Similar to Regulation 8-40, as amended in 1999.
133	Soil Decontamination Operations	VCAPCD 2007 Air Quality Plan	Revises VCAPCD Rule 74.29, Soil Decontamination Operations, to incorporate various enhancements.	No more stringent than BAAQMD Regulation 8-40.
134	Gasoline Storage and Transfer	SJVAPCD 2007 Ozone Plan	Adopt SJVAPCD Rules 4621, 4622, and 4624.	No more stringent than BAAQMD Regulation 8-7 or other rules related to fuel dispensing and storage.

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135	Storage and Transfer of Gasoline	VCAPCD 2007 Air Quality Plan	Daily self-inspection, semi-annual source tests for stations with greater than 4 million gal/yr throughput, an O&M manual at each station and 98% phase I efficiency.	No more stringent than current Regulation 8-7 requirements.
136	Aviation Fuel Transfer	SJVAPCD 2007 Ozone Plan	This measure would affect operations with bulk aviation fuel storage, including military, civilian, and private airports or air fleet services. It would reduce fugitive VOC emissions created during Phase 1 aircraft refueling operations.	Aviation fuel is already subject to phase I requirements of Regulation 8, Rule 7.
137	Boilers, Steam Generators and Process Heaters (≥1 MM BTU/hr)	SCAQMD 2007 AQMP	Make NOx limits more stringent.	Equivalent to BAAQMD Regulation 9-7.
138	Polystyrene Foam, Polyethylene, and Polypropylene	SJVAPCD 2007 Ozone Plan	Implement SJVAPCD Rule 4682 (amended 9/20/07) that requires effectively 85% control (90% capture, 95% control of captured VOC).	No more stringent than BAAQMD Regulation 8-52.
139	Improved Start-Up, Shutdown and Turnaround procedures	SCAQMD 2007 AQMP	Conduct analysis to identify improved operating procedures that minimize or eliminate the emissions impacts in start-up, shutdown or turnaround and develop rule amendments that could seek implementation of best management practices and/or additional hardware.	Included in Vessel Depressurization Regulation. 8-10 and Flare Regulation. 12-12 rules.
140	Commercial Charbroiling	MBUAPCD 2008 Air Quality Management Plan	Reduce PM and VOC emissions from chain-driven units by 90% with flameless catalytic oxidizers.	BAAQMD has already adopted Regulation 6, Rule 2 to obtain 83% PM reduction and 86% VOC reduction from existing chain-driven units.
141	Stationary Gas-Fired IC Engines	MBUAPCD 2008 Air Quality Management Plan	Establish NOx limits for existing devices: -Rich-burn Engines: 50 ppmv NOx @ 15% O2 OR 90% NOx reduction -Lean-burn Engines: 115 ppmv NOx @ 15% O2 OR 80% NOx reduction -Replacement Engines: Electric motors where feasible.	BAAQMD has already amended Regulation 9, Rule 8 to establish NOx limits for existing devices.
142	Stationary IC Engines	SCAQMD 2007 AQMP	Establish NOx limits for engines.	BAAQMD Regulation 9, Rule 8.
143	Stationary IC Engines	SJVAPCD 2007 Ozone Plan	Possibly expand SJVAPCD Rule 4702 to engines.	BAAQMD Regulation 9, Rule 8 applies to engines >50 hp. If San Joaquin applies NOx limits to engines 50<hp, this may make the rule more stringent than Regulation 9-8. San Joaquin has not published a draft rule to implement this control measure. When Rule 4702 is amended, this measure should be re-evaluated.
144	Organic Liquid Storage Tanks (2001 SIP process)	Bay Area 2005 Ozone Strategy	Further Study Measure FS 10 (2005) suggests improved tank seals and fittings, lower vapor pressure exemptions, improved tank design, vapor recovery for tanks, and control of emissions from tank degassing and cleaning.	BAAQMD Regulation 8-5 was amended in 2006 to incorporate various improvements.

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145	Plastic, rubber and glass coating (2001 SIP process)	Bay Area 2005 Ozone Strategy	Set VOC limits for rubber and glass coating (SCAQMD rule).	Plastic coating in the Bay Area is controlled by Regulation 8, Rule 31: Surface Preparation and Coating of Plastic Parts and Products. Also, emissions from facilities that coat rubber products and coat glass products are minimal.
146	CAFO (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Implement control for confined animal feed operations.	In 2006, the BAAQMD adopted amendments to Regulation 1, Regulation. 2-1 and adopted new Regulation. 2-10.
147	Boilers, Steam Generators, Process Heaters/Space Heaters	Bay Area 2005 Ozone Strategy	This measure suggests further NOx reductions from boilers, steam generators and process heaters.	In 2008 BAAQMD amended Regulation 9-6 and 9-7 to incorporate more stringent NOx emission limits on most boilers, steam generators and process heaters.
148	Residential water heaters (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that residential water heater NOx limits developed by South Coast AQMD be evaluated for feasibility in other air districts.	In 2007 BAAQMD amended Regulation 9-6 which applies to residential water heaters.
149	Flares (2001 SIP process)	Bay Area 2005 Ozone Strategy	Further study measure FS-8 from the 2001 Ozone Plan looked at the potential to further control flared emissions at petroleum refineries.	Regulation 12-12 adopted 2005, amended 2006.
150	Vessel Depressurization (2001 SIP process)	Bay Area 2005 Ozone Strategy	Control Measure SS-17, Improved Vessel Depressurization Rule, suggests emissions be abated to a more stringent standard than BAAQMD Regulation 8, Rule 10 currently requires.	Amendments to Regulation 8, Rule 10 adopted January 21, 2004. District Regulation 8, Rule 10: Process Vessel Depressurization
151	Marine Vessel Loading (2001 SIP process)	Bay Area 2005 Ozone Strategy	Further study measure FS-11 recommends control of marine organic liquid cargoes where control is not currently required.	In 2005 BAAQMD amended Regulation 8-44 to incorporate further controls on marine loading and venting operations.
152	Electric power plants (2001 SIP process)	Bay Area 2005 Ozone Strategy	Control electric power plants to 1.5 ppm as required in Massachusetts.	The BAAQMD applies this same BACT standard for new power plants.
153	Solvent cleaning (2001 SIP process)	Bay Area 2005 Ozone Strategy	Require low VOC (aqueous) solvents.	Amendments to Regulation 8, Rule 16: Solvent Cleaning Operations on October 16, 2002.
154	Graphic Arts (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that graphic arts rules developed by Sacramento and South Coast districts be evaluated for feasibility in other air districts.	BAAQMD Regulation 8-20 was amended in 2008.
155	Boilers, Steam Generators & Process Heaters, 2MMBtu/hr – 5 MMBtu/hr (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to reduce NOx emissions from boilers, steam generators and process heaters smaller than are currently regulated, 2MM to 5MM btu/hr.	In 2008, BAAQMD amended Regulation 9-7 to implement more stringent NOx emission limits on gas-fired heaters >2 MM BTU/hr.
156	Solid Fuel-Fired Boilers, Steam Generators & Process Heaters (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to further reduce NOx emissions from solid fuel fired boilers, steam generators and process heaters.	BAAQMD Regulation 9, Rule 7 already applies to solid-fueled devices and applies the lowest NOx limit (40 ppmv) to be examined by San Joaquin.

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157	Storage & Transfer of Gasoline @ Terminals & Bulk Plants (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to further reduce emissions from the storage and transfer of gasoline at bulk terminals and bulk plants.	Bay Area Regulation 8, Rule 33: Gasoline Bulk Terminals and Gasoline Delivery Vehicles.
158	VOC Fugitives from Petroleum Refineries and Chemical Plants (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to further reduce fugitive VOC emissions from refinery operations and chemical plants.	BAAQMD Regulation 8, Rule 18.
159	Flares (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Control emissions from flares.	This has been already implemented under Regulation. 12-11 and Regulation. 12-12, which requires monitoring and ongoing emissions reduction planning from petroleum refinery flares.
160	Gasoline dispensing (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that gasoline dispensing rules developed by Sacramento, South Coast and Yolo Solano districts be evaluated for feasibility in other air districts.	District Regulation 8, Rule 7: Gasoline Dispensing Facilities is as stringent as the Yolo Solano and South Coast rules.
161	Small boilers (2001 SIP process)	Bay Area 2005 Ozone Strategy	Control NOx from smaller boilers (Sacramento rule).	In 2008 BAAQMD amended Regulation 9-7 to incorporate more stringent NOx emission limits for heaters up to 2 MM BTU/hr.
162	Auto Refinish Coatings (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that automotive refinish coating VOC rules developed by SJVAPCD be evaluated for feasibility in other air districts.	In 2008 BAAQMD amended Regulation 8-45.
163	Commercial charbroiling (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that commercial charbroiling emissions limits developed by SJVAPCD be evaluated for feasibility in other air districts.	In 2007 BAAQMD adopted Regulation 6-2 to regulate commercial char broilers.
164	Usage of solvents (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that solvent usage rules found in South Coast AQMD Rule 442 be evaluated for feasibility in other air districts.	The South Coast rule is the equivalent of Bay Area Regulation 8, Rule 4: General Solvent and Surface Coating Operations, which limits emissions from coating or solvent using sources not subject to other Regulation 8 rules.
165	Wood flat stock coating (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that wood flat stock coating VOC limits developed by South Coast AQMD be evaluated for feasibility in other air districts.	Bay Area Regulation 8, Rule 23: Coating of Flat Wood Paneling and Wood Flat Stock.
166	Restaurant emissions (2001 SIP process)	Bay Area 2005 Ozone Strategy	Adopt a rule limiting emissions from commercial charbroilers based on South Coast Rule 1138.	In 2007 BAAQMD adopted Regulation 6-2 to regulate commercial charbroilers.
167	Organic Liquid Storage and Transfer (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that organic liquid storage tank and transfer limits as developed by Yolo Solano APCD be evaluated for feasibility in other air districts.	Bay Area Regulation 8, Rule 5: Storage of Organic Liquids, Rule 33: Gasoline Bulk Terminals and Gasoline Delivery Vehicles, and Rule 39: Gasoline Bulk Plants and Gasoline Delivery Vehicles.
168	Wood Products Coating (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that VOC limits for wood products coatings as developed by Yolo Solano APCD be evaluated for feasibility in other air districts.	Bay Area Regulation 8, Rule 32: Wood Products Coating. Amended August 2009.

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169	Refinery Turnaround Units	SJVAPCD 2007 Ozone Plan	Similar to measure in San Joaquin 2007 Ozone Plan.	This has been already implemented as part of changes to Regulation. 8-10, Regulation 8-28 and Regulation 12-11 and Regulation 12-12.
170	Petroleum Refinery Pilot Program	SCAQMD 2007 AQMP	Implement a voluntary program to provide additional compliance flexibility to regulated refinery sources in the Basin, whereby source may seek reduction opportunities either from on-site or off-site VOC sources.	Already implemented for NOx via Regulation 2-9.
171	Control of VOC Emissions from Storage Vessels and Degassing Operations	HGB 8-hour attainment plan	The Houston-Galveston area of Texas has proposed a variety of monitoring and reporting requirements to better evaluate and track fugitive emissions from a variety of sources.	The proposals replicate programs in place in the BAAQMD and other California districts.
172	POTW Water Treatment (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Study the potential to control ROG emissions from publicly owned treatment works.	In the more urbanized Bay Area, some controls have already been implemented on wastewater tanks in public treatment works due to odors or nuisances. These facilities already control emissions with IC engines, as do other wastewater treatment facilities (digester gas is the fuel for the engines).
173	BACT for Stationary Diesel Equipment	Bay Area 2005 Ozone Strategy	Require all stationary diesel equipment to meet BACT for hydrocarbons and nitrogen oxides. BACT would be defined as biodiesel paired with catalysts.	In 2007 BAAQMD amended Regulation 9-8 to incorporate NOx emission limits for diesel engines.
174	Small IC Engines (2001 SIP process)	Bay Area 2005 Ozone Strategy	Control NOx on small (50 to 250 brake horsepower) internal combustion engines.	In 2007 BAAQMD amended Regulation 9-8 to apply emission limits to engines rated over 50 bhp.
175	Portable Engine and Generator Emissions Reduction	Bay Area 2005 Ozone Strategy \TIAX	Retrofit/replace existing diesel powered electrical generation units.	Carl Moyer Program.
176	Hydrogen Plant Process Vents (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that emission limits found in South Coast AQMD Rule 1189: VOC Emissions from Hydrogen Plant Process Vents be evaluated for feasibility in other air districts.	In the BAAQMD, vents of this type are controlled under Regulation 8, Rule 2, which limits emissions to 15 pounds per day.
177	Decontamination of soil (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that soil decontamination emission limits developed by South Coast AQMD be evaluated for feasibility in other air districts. South Coast Rule 1166: Volatile Organic Compound Emissions From Decontamination of Soil.	The South Coast rule does not contain provisions more stringent than the Bay Area rule. Bay Area Regulation 8, Rule 40: Aeration of Contaminated Soil and Removal of Underground Storage Tanks.
178	Screen Printing (SJVUAPCD)	Bay Area 2005 Ozone Strategy	The San Joaquin Valley Unified APCD has proposed, in Table 4.3 of their 2002 and 2005 Rate of Progress Plan, to investigate further controls for screen printing operations.	District Regulation 8, Rule 20: Graphic Arts Operations.

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179	Leaks and Releases from Petroleum Refineries and Chemical Plants (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that fugitive emission limitations for refineries and chemical plants found in SCAQMD Rule 1173 be evaluated for feasibility in other air districts.	No significant differences between the South Coast and BAAQMD rule.
180	Refueling of Aircraft with Avgas	BAAQMD staff By Van Buren	Require Phase II vapor recovery for aircraft fueling.	Aviation gasoline (not jet fuel) is already subject to Phase I requirements under BAAQMD Regulation 8, Rule 7. Aircraft fuel tanks are not configured to accept Phase II vapor recovery nozzles in the way that automobile tanks are.
181	Include Methane in Leak Detection	BAAQMD staff By Van Buren	The methane portion of a leak is currently subtracted when measuring a leak. Since methane is a green house gas, it could now be included. This control measure makes it easier for the District to identify leaks and require reductions. This control measure would reduce VOC and methane emissions.	This has been implemented in BAAQMD fugitive emissions rules for a number of years.
182	Landfills	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that solid waste disposal site emissions limits developed by South Coast AQMD be evaluated for feasibility in other air districts.	Bay Area Regulation 8, Rule 34. The South Coast rule is no more stringent than the Bay Area rule.
183	Emission Reductions from Gasoline Transfer and Dispensing	SJVAPCD 2007 Ozone Plan	Control measure would incorporate the most stringent requirements into the gasoline dispensing facility rule.	Regulation 8, Rule 7. BAAQMD has recently promulgated amendments to Regulation 8, Rules 33 and 39, regulating transfer of gasoline at bulk terminals and bulk plants.
184	Automotive Coatings	SMAQMD 2008 Draft 8-hour SIP	Control measure will evaluate the information from CARB's October 2005 Suggested Control Measure (SCM) for automotive coatings and propose amendments to Rule 459.	Amendments to Regulation 8-45 adopted December, 2008.
185	Petroleum Refineries	Bay Area 2005 Ozone Strategy \TIAX	Further reduce NOx emissions from refinery boilers; improve refinery fugitive emission standards; consider South Coast standards for refinery wastewater system; set emission standards for flares; and further control organic liquid storage tanks	Reduction in NOx emissions is currently underway. All other suggestion in the description have been completed.
186	Natural-Gas Fired Fan-Type Central Furnaces and Residential Heaters	SCAQMD 2007 AQMP	Reduce NOx limits in Rule 1111 for new space heaters	Rule 1111 is currently equivalent to BAAQMD Reg 9, Rule 4.
187	Natural-Gas Fired Fan-Type Central Furnaces and Residential Heaters	SJVAPCD 2007 Ozone Plan	Reduce NOx limits in Rule 4905 as winter season PM measure.	Equivalent to BAAQMD Reg 9, Rule 4.
188	Vapor recovery at refineries	Bay Area 2005 Ozone Strategy	Require vapor recovery at refineries.	District Regulations 8-5, 8-8, 8-10, 8-18, 8-28, 8-44.

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189	Prohibit Dispensing of Gasoline without Phase II into a container greater than x gallons capacity	BAAQMD staff By Van Buren	This control measure reduces emissions of gasoline vapors when loading a container greater than a TBD capacity by requiring that the loading event be adequately controlled by Phase II vapor recovery. This control measure makes an exemption in 8-7 narrower.	District Regulation 8-7
190	Positive Crankcase Ventilation	BAAQMD staff By Van Buren	Require positive crankcase ventilation for all non-vehicular internal combustion, reciprocating spark ignited and diesel engines.	Crankcase ventilation back into the combustion chamber (rather than to atmosphere) has been a characteristic of stationary and mobile internal combustion engines for many years. Although it is possible that some pre-1960's models of stationary IC engines still exist, they would have likely been retrofit to meet other emission requirements during maintenance.
191	Polyester Resin Operations (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that polyester resin manufacturing operations rules developed by South Coast and Yolo Solano districts be evaluated for feasibility in other air districts.	Currently the subject of rule development efforts, derived from the 2005 Ozone Strategy.
192	Pressure Relief Devices (2001 SIP process)	Bay Area 2005 Ozone Strategy	Further Study Measure FS 8 suggests, in part, additional control of pressure relief devices (PRD's) or banning venting of PRD's directly to atmosphere.	Regulation 8, Rule 28 amendments of Dec. 1997.
193	Accelerated NESHAPs	Public Suggestion by A. Katz (Breathe California).	Support for the acceleration of federal NESHAP rules.	SSM 1 is an example of the air district requiring stationary sources to implement components of this program in advance of federal regulatory requirements.
194	Additional Surface Prep Standards	BAAQMD staff By Van Buren	Additional coating rules in Regulation 8, especially Rules 3 and 32, that could be revised to include identical or similar surface preparation standards. Another approach would be to require those identical or similar surface preparation standards only during the ozone season.	Evaluated for current development for Reg 8 Rul 3 and 32.
195	Graphic Arts	SMAQMD 2008 Draft 8-hour SIP	Control measure will lower the District's current rule exemption limit from 400 pounds per month to 60 pounds/month and will revise the Districts' various cleaning solvent ROG limits to match the current SMAQMD standards.	Amendments to Regulation 8-20 adopted November, 2008.
196	Regulate household products	Bay Area 2005 Ozone Strategy	Measure would control household products or consumer products by limiting the emissions of ozone forming constituents such as volatile organic compounds.	CARB has sole authority to directly regulate the VOC content of consumer products, under Health and Safety Code 41712. Also, District Regulation 8, Rule 3: Architectural Coatings limits VOC content. Amendments to Rule 3 were adopted in July 2009.

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197	Landfills	Public Suggestion By Brian Matthews (Stopwaste.org)	Control landfill emissions.	In the Bay Area, landfills are regulated by Regulation 8, Rule 34: Solid Waste Disposal Sites.
198	Emission reductions from Under fired Char broilers	SCAQMD 2007 AQMP	Control measure seeks emissions reductions from under fired char broilers.	BAAQMD Regulation. 6-2 was adopted December, 2007.
199	Emission Reductions from Wood burning Fireplaces and Stoves	SCAQMD 2007 AQMP	Control measure seeks emission reductions from wood burning fireplaces and stoves.	BAAQMD Regulation. 6-3 was adopted July, 2008.

A-3 Transportation Measures Already Addressed/ Implemented by the District				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Traffic metering light idling	Public Suggestion Public by Dan Scannell	Caltrans/MTC to ensure that freeway on-ramp metering lights are being operated in a manner that does not increase air pollution. In some metering lights are creating traffic where none previously existed, and in doing so, cause thousands of automobiles to idle unnecessarily, producing a significant amount of air pollution. If the metering lights cannot be operated efficiently and in a manner which does not increase air pollution, they should not be utilized.	Ramp metering a central component of MTC's FPI program. There has been detailed analysis by MTC that shows freeway speeds and travel time improves, which also shows reductions in emissions. (See MTC's Transportation 2035 Performance Assessment Report at http://www.mtc.ca.gov/planning/2035_plan/index.htm)
2	CMAQ allocation optimization	Public Suggestion By TRANSDEF	MTC shall allocate CMAQ funds separately from other sources. Project submissions shall be prioritized so that the ones providing the most cost-effective air quality benefits (as modified by environmental justice considerations) get funded first.	Regional program elements already go through C/E evaluation as part of the RTP. Individual projects competing for funds are already subject to stricter evaluation through fund program guidance
3	Provide more funding for urban transit service	Public Suggestion By TRANSDEF	A. Set new 5 year ridership increase targets (at least 10%) for transit operators on a county by county basis. B. MTC will dedicate 60% of its transit capacity expansion funding to projects that rank as the most cost-effective projects submitted, based on operating and capital cost per new rider. C. MTC will exert maximal efforts to provide transit operating funds to meet those targets, including the flexing of STP, CMAQ and RTP funding and the capitalization of preventive maintenance. D. MTC will modify the regional allocation formulas based on population by adding to each county's residents the residents of other counties that work there.	A. MTC will not be setting targets for the purpose of 09 CAP. B. MTC already considers C/E in their investments, but it's not the determining factor. C. MTC already does. D. Most regional fund allocation formulas are set by law. For STP/CMAQ, MTC does not want to establish formulas as this limits funding flexibility

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4	MTC's transportation planning	Public Suggestion by TRANSDEF	Improve the ability of MTC's transportation planning to accurately predict future conditions and thus make decisions resulting in better air quality, regional access and quality of life. In particular, the model needs to properly account for latent and induced demand and be sensitive to pedestrian-friendly land use.	MTC's current model already has this capability, and will be enhanced further as we transition to an "activity-based" model later this year.
5	Commitment to TDM and TSM	Public Suggestion from TRANSDEF	Promote local public agency commitment to TDM and TSM: Before any City, County, Transit Operator or other agency can receive a transportation improvement or funds resulting from any action by MTC, ABAG or BAAQMD, it must provide a certificate of compliance that it has completed the following actions; such as: A. Providing economic incentives for existing employment sites to establish Commuter Choice programs B. Enact disincentives to everyday SOV commute travel by increasing the cost of commuter parking. Secure local agency support for assisting surface transit vehicles to move faster through traffic, thereby making transit more competitive with the SOV. Commit to apply for funding for signal preemption and transit priority projects when and if requested by Transit Operator.	The District's and MTC's approach is to provide incentives to local governments to implement these measures. It should be noted that most of all these suggestions are embodied in TCM's.

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6	Promote local government commitment to Smart Growth	Public Suggestion from TRANSDEF	Promote local government commitment to Smart Growth: Before any City or County can receive a transportation improvement or funds resulting from any action by MTC, ABAG or BAAQMD, it must provide a certificate of compliance that it has completed some of following actions: A. Require major new development to provide permanent connections to transit. Provide incentives to locate major new development near frequent transit service. B. Report annually to MTC the number of units of housing and square feet of commercial development it has approved. Using the methodology developed by the Regional Agencies Smart Growth Strategies process, calculate the percentage of correlation between cost of housing to be built and income of jobs expected to be created, on a cumulative basis since the adoption of this TCM. Create an incentive program, where the percentage of correlation (perhaps plus a constant) is multiplied by the city's formula share of regional transportation funding. . C. Adopt a Regional Transportation Impact Mitigation Fee to raise funds for regional transportation infrastructure and mitigation for the impacts of local land use decisions on the regional transportation network. (Note that this fee would not take the place of mitigation fees for local impacts.)	The District's and MTC's approach is to provide incentives to local governments to implement these measures. It should be noted that most of all these suggestions are embodied in TCM's.

B: Measures with No Authority; Addressed/Implemented by Other Agencies

B-1 Mobile Source Measures with No Authority; Addressed/Implemented by Other Agencies				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Study Benefits of a Particulate Trap Retrofit Program	VCAPCD 2007 Air Quality Plan	Examine potential to accelerate application of particulate traps on diesel-powered buses to achieve earlier compliance with State regulations.	Addressed by ARB diesel risk reduction regulations and air toxic control measures.
2	Smog Check (2001 SIP process)	Bay Area 2005 Ozone Strategy	Subsidize Smog Check repairs for low income drivers.	The California Bureau of Automotive Repair (BAR) already operates a program called the Consumer Assistance Program (CAP) to provide repair subsidies for low-income drivers.

3	ZEV Bus Demonstration and Purchase	Bay Area 2005 Ozone Strategy \TIAX	Maintain the zero-emission bus (ZEB) demonstration and purchase requirements included in the Public Transit Fleet Rule.	Already Implemented by ARB.
4	New Low-Emission Heavy Duty Vehicles	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives to purchase new heavy duty vehicles with 1.8 g/bhp-hr natural gas engines instead of 2.5g/bhp-hr diesel engines.	ARB on-road truck rule requires that all new trucks (all fuel types) must achieve a standard of 0.2 g/bhp-hr beginning in 2010.
5	Fleet Rules	Bay Area 2005 Ozone Strategy	Mandate low emission vehicles for public fleets, buses, refuse trucks and airport services.	Under ARB's regulatory authority.
6	Zero Emissions from Stopped Vehicles	Bay Area 2005 Ozone Strategy	This measure would require that all motor vehicle engines (cars, trucks, buses) turn off when vehicle temporarily stops, such as in congested traffic, at red lights, etc.	Under ARB's regulatory authority.
7	NOx Screening in the Heavy-Duty Vehicle Inspection Program	Bay Area 2005 Ozone Strategy \TIAX	Include NOx screening in the currently implemented Heavy-Duty Vehicle Inspection Program.	Under ARB's regulatory authority.
8	Fleet Rules	Bay Area 2005 Ozone Strategy	Mandate low emission vehicles for public fleets, buses, refuse trucks and airport services.	Under ARB's regulatory authority.
9	Zero Emissions from Stopped Vehicles	Bay Area 2005 Ozone Strategy	This measure would require that all motor vehicle engines (cars, trucks, buses) turn off when vehicle temporarily stops, such as in congested traffic, at red lights, etc.	Under ARB's regulatory authority.
10	NOx Screening in the Heavy-Duty Vehicle Inspection Program	Bay Area 2005 Ozone Strategy \TIAX	Include NOx screening in the currently implemented Heavy-Duty Vehicle Inspection Program.	Under ARB's regulatory authority.
11	Tighter Marine Vessel Emission Standards	Bay Area 2005 Ozone Strategy	Set more stringent marine vessel emission regulations.	Under ARB/EPA's regulatory authority.
12	Low NOx APU	Bay Area 2005 Ozone Strategy \TIAX	Mandate the installation of low NOx auxiliary power units for on road heavy-duty vehicles to reduce idling emissions.	Under ARB/EPA's regulatory authority.
13	Lower Emission Standards for Gasoline Trucks	Bay Area 2005 Ozone Strategy \TIAX	Adopt the federal standard for MY2008+ on-road heavy-duty gasoline engines, bringing the ARB standard in line with federal regulations and aiding in the enforceability of the lower federal standards.	Under ARB/EPA's regulatory authority.
14	Establish a Heavy-Duty Smog Check Program	Bay Area 2005 Ozone Strategy \TIAX	Develop an on-road heavy-duty vehicle "smog check" program, building upon the existing California Heavy-duty Vehicle Inspection Program, that would test for NOx, ROG/VOC, PM, and other regulated pollutant measurements. The testing and maintenance requirements of such a program would be intended to ensure that on-road heavy-duty vehicles would remain at or below their certified emissions levels during their operational lifetime.	Addressed by BAR. Established by AB 1488 (2007).

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15	Further Emission Reductions from In-Use Off-Road Vehicles and Equipment (VOC, NOx, PM10)	Bay Area 2005 Ozone Strategy	Regulation requiring the retrofitting of existing off-road engines or accelerate engine turnover.	ARB and U.S. EPA have primary authority to establish broad-based emission reduction programs for mobile sources..
16	Blue Skies Series Engines 25 hp or Greater	Reviewed 2005 CAP\TIAX	Encourage the use of engines that participate in EPA's voluntary "Blue Sky Series" engine program.	Under EPA's authority. Superceded by US EPA Tier 3/Tier 4.
17	Tighter Requirements for New Passenger Vehicles (LEV III)	Bay Area 2005 Ozone Strategy \TIAX	Implement tighter emission standards for new passenger vehicles as defined in the CARB Clean Air Plan under LT/MED-DUTY-4.	Under ARB/EPA's regulatory authority.
18	Require On-Board Diagnostics on New Diesel and Gasoline Trucks and Buses	Bay Area 2005 Ozone Strategy \TIAX	Require equipment/software to detect malfunctions and excess emissions on new trucks and buses (on-board diagnostics).	Under ARB/EPA's regulatory authority.
19	Preconditioning of Diesel Engines	Bay Area 2005 Ozone Strategy	Mandate preconditioning of large off-road diesel engines (>25hp) to reduce cold-start emissions.	Under ARB's regulatory authority.
20	VOC/ROG/NOx Standards for Refrigeration Units	Bay Area 2005 Ozone Strategy \TIAX	Set VOC/ROG/NOx standard for diesel fueled refrigeration units on trucks.	Under ARB/EPA's regulatory authority.
21	Pursue Approaches to Clean Up the Existing Harbor Craft Fleet – Cleaner Engines and Fuels	Bay Area 2005 Ozone Strategy	Reduce emissions from in-use harbor craft engines using add-on controls (e.g. diesel particulate filters), repowering engines, replacing vessels, and cleaner fuels.	Under ARB/EPA's regulatory authority.
22	Tighter requirements for manufacturers to certify emissions from new passenger vehicle	Bay Area 2005 Ozone Strategy \TIAX	Set tighter requirements for manufacturers to certify emissions from new passenger vehicles as defined in the CARB Clean Air Plan under LT/MED-DUTY-3.	Under ARB's regulatory authority.
23	Vehicle Fleets Serving Intermodal Facilities	Bay Area 2005 Ozone Strategy \ENVIRON	Require reduced emissions from heavy-duty vehicles serving transportation facilities (port, airport, and rail yards).	Under ARB's regulatory authority.
24	Reduce Emissions from Aircraft including Taxiing, Take-Offs, and Landings	Bay Area 2005 Ozone Strategy \TIAX	Require engine emission retrofit kits, low-emission new purchases, aircraft taxiing emissions reduction by using a single engine, and electricity as auxiliary power.	Under FAA/ARB's regulatory authority.
25	Lower Emission Standards for New Marine Vessels	Bay Area 2005 Ozone Strategy \TIAX	Set more stringent emission standards for new harbor craft and ocean-going ships and pursue approaches to reduce land based port emissions – alternative fuels, cleaner engines, retrofit controls, electrification, education programs, and operational controls.	Under EPA/IMO's regulatory authority.
26	Lower Emission Standards for New Off-road Spark-ignited Engines with less than 25 hp	Bay Area 2005 Ozone Strategy \TIAX	Set lower emission standards for new off-road spark-ignited engines that are less than 25 hp.	Under ARB/EPA's regulatory authority.
27	Prohibit 2-Stroke Off-Road Engines	Bay Area 2005 Ozone Strategy \TIAX	Require all existing off-road 2-stroke engines to be retired by Dec 31, 2004, and replaced by MY2005 and newer equipment.	Under ARB/EPA's regulatory authority.

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28	Emulsified Diesel	Bay Area 2005 Ozone Strategy \TIAX	Require heavy duty vehicles that currently utilize diesel fuel to use emulsified diesel, such as Lubrizol's PuriNOx.	Under ARB/EPA's regulatory authority.
29	Fleet Modernization for Heavy-Duty Diesel Vehicles	Bay Area 2005 Ozone Strategy /ENVIRON	Require the modernization of heavy-duty diesel fleets by accelerating the turnover of older higher emitting engines to cleaner late model vehicles and engines.	ARB has adopted an Air Toxic Control Measure to control diesel PM and Nox emissions from on road heavy duty fleets. Regulatory language is published in Sections 2025 et seq, Title 13, California Code of Regulations.
30	Dual Fuel Retrofit Technology	Reviewed 2000 CAP/TIAX	Require the dual fuel retrofit of heavy duty diesel vehicles to use LNG.	Under ARB/EPA's regulatory authority.
31	Replace or Upgrade Emission Control Systems on Existing Passenger Vehicles – Pilot Program.	Bay Area 2005 Ozone Strategy	Mandatory replacement of catalysts, oxygen sensors and evaporative emission carbon canisters on older passenger cars.	Under ARB/EPA's regulatory authority.
32	Set Lower Emission Standards for New Non-Handheld Small Engines and Equipment (Spark Ignited Engines Under 25 hp Such As Lawnmowers)	Bay Area 2005 Ozone Strategy	Lower emission standards, including diurnal emission standards, for non-handheld small off-road engines such as lawn mowers.	Under ARB/EPA's regulatory authority.
33	Set Low-Sulfur Standards for Diesel Fuel for Trucks/Buses, Off-Road Equipment, and Stationary Engines	Bay Area 2005 Ozone Strategy	Require trucks/buses, off-road equipment, and stationary engines to use low-sulfur diesel fuel to reduce PM and SOx emissions and enable the use of after treatment technologies which can reduce NOx, PM, and ROG.	Under ARB/EPA's regulatory authority.
34	Lower Emission Standards for New Off-road Compression Ignition Engines	Bay Area 2005 Ozone Strategy \TIAX	Set lower emission standards for new off-road compression ignition engines that are 25 hp or greater.	Under ARB/EPA's regulatory authority.
35	Lower Emission Standards for New Off-road Spark-ignited Engines	Bay Area 2005 Ozone Strategy \TIAX	Set lower emission standards for new off-road spark-ignited engines that are 25 hp or greater.	Under ARB/EPA's regulatory authority.
36	Public Agency Fleets	Bay Area 2005 Ozone Strategy	Requires all government agencies operating heavy-duty vehicles to purchase vehicles with ARB certified optional low-NOx standard, retrofit vehicles with exhaust after treatment devices or repower vehicles with cleaner engines.	Under ARB/EPA's regulatory authority.
37	Lower Emissions Standards for New Handheld and Non-handheld Lawn and Garden Equipment	Bay Area 2005 Ozone Strategy \TIAX	Set tighter emissions standards for handheld and non-handheld lawn and garden equipment.	Under ARB/EPA's regulatory authority.
38	Clean Up Existing Off-Road Gas Equipment Through Retrofit Controls	Bay Area 2005 Ozone Strategy	Require retrofit of existing and new light-duty spark ignited engine (25 hp and greater) fleets through retrofit of existing engines and new emission standards at zero and near-zero levels.	Under ARB/EPA's regulatory authority.

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39	Reduce Emissions from Airport Ground Support Equipment and Ground Access Vehicles	Bay Area 2005 Ozone Strategy \TIAX	Negotiate fleet average emission reductions for ground support equipment through the purchase of new zero and low emission equipment, accelerating equipment turnover, and retrofitting equipment.	Under ARB/EPA's regulatory authority. ARB off-road ATCM.
40	Limit Use of Diesel Motors at Ports	Bay Area 2005 Ozone Strategy	Require reduced emissions from diesel trucks and ships at ports.	Under ARB/EPA's regulatory authority.
41	Electric Transportation Refrigeration Units	Bay Area 2005 Ozone Strategy	Require replacement of diesel powered transportation refrigeration units to dual fueled plug-in electric/diesel units, and staged development of truck stop electric refrigeration centers.	Under ARB/EPA's regulatory authority.
42	Set Lower Emission Standards for New Handheld Small Engines and Equipment (Spark Ignited Engines Under 25 hp such as Weed Trimmers, Leaf Blowers, and Chainsaws)	Bay Area 2005 Ozone Strategy	Lower emission standards for engines with displacements at or below 80 cc including such handheld equipment as weed trimmers and leaf blowers.	Under ARB/EPA's regulatory authority.
43	Texas Low Emission Diesel for Locally Operated Locomotive Engines	HGB 8-hour attainment plan	Locomotive switcher engines operated on a local level, used to move railcars around a yard, using TxLED compliant fuel.	Under ARB/EPA's regulatory authority.
44	Mitigation Fee for Federal Sources	SCAQMD 2007 AQMP	Proposes a mitigation fee program for federal sources, to be adopted by U.S. EPA and paid by federal sources through EPA rulemaking and/or U.S. EPA grants to the District, which will use the funds to achieve equivalent reductions for SIP purposes.	Under ARB/EPA's regulatory authority.
45	Texas Low Emission Diesel (TxLED)	HGB 8-hour attainment plan	Requires all diesel for both on-road and non-road use to have a lower aromatic content and a higher cetane number.	Under ARB/EPA's regulatory authority. CARB diesel risk reduction regulations/ air toxic control measures.
46	Implement Registration and Inspection Program	Bay Area 2005 Ozone Strategy \TIAX	Implement a registration and inspection program for heavy-duty (greater than 50hp) diesel off-road vehicles and equipment.	Under ARB/EPA's regulatory authority.
47	Texas Low Emission Diesel for Marine Fuels	HGB 8-hour attainment plan	Requires that any DMA, DMX fuel or Marine Gas Oil (MGO) that is sold for use in marine vessels in the region must meet low emission diesel (LED) requirements. This includes grades of marine fuel used by harbor craft vessels but not oceangoing vessels.	Under ARB/EPA's regulatory authority. CARB ATCM for marine vessels and low-sulfur fuel for ocean going vessels.
48	Diesel Equipment Meet Performance Standards for HC and NOx Consistent with BACT	Bay Area 2005 Ozone Strategy	Require all mobile diesel equipment, on- and off-road, to meet BACT for hydrocarbons and NOx.	Under ARB/EPA's regulatory authority.
49	Consider Ethanol as an Alternative Fuel	Bay Area 2005 Ozone Strategy	Promote ethanol as an alternative fuel.	Under ARB/EPA's regulatory authority.

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50	Set Lower Emission Standards for New Off-Road Gas Engines (Spark Ignited Engines 25 hp and Greater)	Bay Area 2005 Ozone Strategy	ARB would adopt exhaust emission standards for new non-preempt engines, in alignment with the federal Tier 2 standards beginning with the 2007 model year.	Under ARB/EPA's regulatory authority.
51	Fuel Changes - Locomotives	Bay Area 2005 Ozone Strategy \TIAX	Encourage the use of alternative diesel fuels and diesel fuel formulations for diesel locomotives.	Under ARB/EPA's regulatory authority. Already implemented by Statewide MOU.
52	Low Emission Diesel Fuels	Bay Area 2005 Ozone Strategy \ENVIRON	Require year-round use of low emission diesel fuels for diesel off-road vehicles and equipment.	Under ARB/EPA's regulatory authority.
53	Retrofit Controls and 3-way Catalyst for Spark Ignition Engines	Bay Area 2005 Ozone Strategy \TIAX	Require retrofit of large spark-ignited off-road equipment (> 25 HP)	Under ARB/EPA's regulatory authority.
54	Set Additive Standards for Diesel Fuel to Control Engine Deposits	Bay Area 2005 Ozone Strategy	Require the use of deposit control additives in diesel fuel.	Under ARB/EPA's regulatory authority.
55	Require Cruise Ships to Use Electrical Auxiliary Power in Port	Bay Area 2005 Ozone Strategy	Require shore side electrical hookup for cruise ships while in port.	Under ARB/EPA's regulatory authority.
56	MSM-10 Opacity or other emissions standards for "gross-emitting" diesel equipment or vessels.	SJVAPCD 2007 Ozone Plan	ARB regulations mandate an enhanced smog check for on-road vehicles in non-attainment areas. State funds are available to subsidize repairs or scrapping of high-emitting vehicles.	Under ARB/EPA's regulatory authority. CARB diesel risk reduction regulations/ air toxic control measures.
57	Longer Term Engine Retrofit or After treatment for Diesel Engines Greater than 25 hp	Bay Area 2005 Ozone Strategy \TIAX	Provide incentive to retrofit off-road heavy-duty diesel engines greater than 25 hp with injection retard, NOx absorber technology, or plasma NOx reduction technologies.	Under ARB/EPA's regulatory authority.
58	Tighter Emission Standards for Pleasure Craft and Off-road Recreational Vehicles	Bay Area 2005 Ozone Strategy \TIAX	Set tighter emissions standards for spark-ignited personal watercraft, outboard boat engines and off-road recreational vehicles including motorcycles and all-terrain vehicles.	Under ARB/EPA's regulatory authority.
59	Accelerated Implementation of CARB's Mobile Source Control Measures	SCAQMD 2007 AQMP	This contingency control measure proposes to accelerate the adoption and implementation dates of the mobile source control measures by one year.	CARB has authority over mobile source emissions.
60	BACT for off road construction	Public Suggestion by A. Katz (Breathe California).	Provide guidance/requirements for best available equipment and technologies to control off road construction emissions.	Addressed by ARB.
61	Emissions testing and repair/maintenance programs for non-road heavy duty vehicles and equipment.		Adopt stringent standards for a wide variety of non-road equipment from forklifts to construction equipment.	Addressed by ARB.

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62	Retrofits- NOx Control Technologies - Locomotives	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives to retrofit diesel locomotives with selective catalytic reduction and diesel oxidation catalysts.	Under ARB/EPA's regulatory authority.
63	Stop SFO Runway to Eliminate Construction Emissions	Bay Area 2005 Ozone Strategy	Stop construction of SFO runway expansion to eliminate dust and diesel emissions from trucks hauling fill material.	Under FAA's regulatory authority.
64	Restrict Trucks on Roadways During Commute Hours	Bay Area 2005 Ozone Strategy	Ban trucks from using roads during commute hours or daylight hours along the freeways of the region.	Under DOT's regulatory authority.
65	Transfer Smog Check Operations to a Government Agency	Bay Area 2005 Ozone Strategy \ENVIRON	Administer smog checks by one or two BAR-selected contractors to achieve a uniform level of confidence in test results.	Under BAR's regulatory authority.
66	Increase Registration Fee on Recreational Vehicles	Bay Area 2005 Ozone Strategy \ENVIRON	Increase State registration fee for recreational off-road vehicles and pleasure craft to create a disincentive to own these vehicles.	Addressed by DMV.
67	Bridge Tolls (Spare the Air)	Bay Area 2005 Ozone Strategy	Increase Bay Bridge tolls during peak hours on STA days.	Caltrans; Bay Area Toll Authority administers bridge tolls.
68	District Should Regulate Mobile Sources	Bay Area 2005 Ozone Strategy	Obtain authority for the District to regulate mobile sources which are currently regulated by ARB and EPA.	Measure Needing Legislation. District does not have authority.
69	Ban or restrict recreational vehicles-Episodic	Bay Area 2005 Ozone Strategy	Ban or restrict recreational vehicles on Spare the Air Days.	No Authority
70	Construction Ban on Spare the Air Days	Bay Area 2005 Ozone Strategy \TIAX	Prohibits operation of all off-road construction equipment on Spare the Air days.	No Authority
71	Limit Heavy Duty Construction Equipment Operation to 6 AM to 10 AM	Bay Area 2005 Ozone Strategy \TIAX	Limit the use of construction equipment rated over 50 hp to 4 hours per day from 6 AM to 10 AM on Spare the Air days.	Not Enforceable/No Authority
72	Episodic Controls	SMAQMD 2008 Draft 8-hour SIP	Will evaluate the feasibility of banning or reducing the use of a variety of types of equipment on high ozone days (construction equipment, pleasure craft or other recreational vehicles; lawn/ landscaping equipment)	No Legal Authority
73	Mitigation Fee Program for Federal Sources 2007 MOB-01	Bay Area 2005 Ozone Strategy	Charge fees to pre-empted sources and use fees to fund projects to mitigate emissions from these sources.	Requires Federal legislation.

B-2 Stationary Source Measures with No Authority; Addressed/Implemented by Other Agencies				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Reduce Fuel Permeation Through Gasoline Dispenser Hoses	Bay Area 2005 Ozone Strategy	This measure would be implemented by ARB regulations that impose stricter permeability standards for gasoline dispenser hoses.	Under ARB/EPA's regulatory authority.

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2	Consumer Products Not Currently Regulated	SCAQMD 2007 AQMP	Several consumer product categories, including Lacquer Thinners and Paint Thinners, are unregulated by the California Air Resources Board (ARB). This rule would apply to suppliers, distributors and retailers of paint thinners and lacquer thinners. It would limit the VOC content of products sold to consumers, including institutional and industrial facilities.	Under ARB/EPA's regulatory authority.
3	Recover Fuel Vapors from Gasoline Dispensing at Marinas	Bay Area 2005 Ozone Strategy	This measure would be implemented by ARB regulations that would require vapor recovery for gasoline dispensing operations at marinas.	Under ARB/EPA's regulatory authority.
4	Increase Recovery of Fuel Vapors from Aboveground Storage Tanks	Bay Area 2005 Ozone Strategy	This measure would expand ARB enhanced vapor recovery regulations to cover above-ground storage tanks associated with vehicle refueling.	Under ARB/EPA's regulatory authority.
5	Large Spark Ignited Agricultural Engines	SJVAPCD 2007 Ozone Plan	Incentives to replace older agricultural irrigation pump engines with new spark-ignited engines.	Under ARB/EPA's regulatory authority.
6	Capture and Control Vapors from Gasoline Cargo Tankers	Bay Area 2005 Ozone Strategy	Enhanced vapor recovery systems for gasoline cargo tankers to reduce evaporation of gasoline from transfer hoses and connections on tanks after delivery is completed.	Under ARB/EPA's regulatory authority.
7	Consumer Product Certification Program for Institutional and Commercial Facilities	SCAQMD 2007 AQMP	This control measure would seek to develop new rules or programs to establish a VOC certification program, and to incentivize high volume users toward super compliant products resulting in overall reductions in VOCs.	Under ARB/EPA's regulatory authority.
8	Gasoline Transfer and Dispensing	SCAQMD 2007 AQMP	Reduce VOC and toxic emissions from gasoline dispensing facilities (GDFs) by improving implementation of the Enhanced Vapor Recovery (EVR) Regulation.	Under ARB/EPA's regulatory authority.
9	Clean Coatings Certification Program	SCAQMD 2007 AQMP	Certification program for low-, ultra low-, or zero-VOC content coatings similar to that for the Clean Air Solvent program. Use of certified Clean Air Coatings would be exempted from coating usage totals for purposes of permit fee calculations.	Under ARB/EPA's regulatory authority.
10	Consumer Product Certification Program for Institutional and Commercial Facilities	SCAQMD 2007 AQMP	VOC certification program to incentivize high volume users toward super compliant products resulting in overall reductions in VOCs.	Under ARB/EPA's regulatory authority.
11	Clean Air Act Emission Fees For Major Stationary Sources	SCAQMD 2007 AQMP	This control measure proposes that if the former federal 1-hour ozone ambient air standard is not met by the year 2010, the District shall impose an emissions fee of $5,000 (1990 dollars) per ton of VOC, emitted by each major source in excess of 80 percent of the sources 2010 emissions beginning in 2011.	Under ARB/EPA's regulatory authority.

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12	Prohibit Dispensing of Gasoline without Phase II into a vehicle not equipped with ORVR	BAAQMD staff By Van Buren	Narrows exemption in 8-7. For any company than has a non-retail GDF without phase II, prohibit the refueling of a non-ORVR equipped vehicle if that vehicle is normally operated such that it can be reasonably refueled at a GDF with phase II.	Under ARB/EPA's regulatory authority.
13	Emission Mitigation at Federally Permitted Projects	SCAQMD 2007 AQMP	EPA would mitigate emissions from federally permitted projects or pay mitigation fees.	Under ARB/EPA's regulatory authority.
14	Clean Air Labeling, Energy Conservation and Public Education Programs	Bay Area 2005 Ozone Strategy \Sierra Nevada Air Quality Group	Augment "clean air labeling" to encourage consumer and company purchases of clean products.	Under ARB/EPA's regulatory authority.
15	Emission Reduction Credits (2001 SIP process)	Bay Area 2005 Ozone Strategy	Eliminate emission reduction credits.	Under ARB/EPA's regulatory authority.
16	Reduce POC emissions from the use of Disinfectants for surface treatment	BAAQMD staff By Van Buren	This control measure addresses disinfecting areas and objects that generally cannot be placed into a sterilizer. Disinfectants are used in medical device manufacturing, food processing, health care institutions, and perhaps elsewhere. The first phase of this control measure is to quantify emissions from this category. The second phase is to determine if non-VOC options exist and to continue with rule making if emission reductions can be achieved.	Under ARB/EPA's regulatory authority.
17	Require Aqueous Brake Cleaners	BAAQMD staff Van Buren	Limit the number of aerosol cans for cleaning brakes and above that number require the use of a water-based low-VOC cleaner, or require permit or registration for aerosol spray cleaners and brake cleaners use. Provide for an exemption for use of a pre-determined number of spray cans per certain timeframe.	Under ARB/EPA's regulatory authority.
18	Portable Engines w/ARB (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to jointly investigate controls on portable engines with CARB. These engines are now subject to the statewide Portable Engine Registration Program.	Under ARB/EPA's regulatory authority.
19	Drip less Nozzle Standard at Phase II exempt GDFs	BAAQMD staff By Van Buren	GDFs are implementing Phase II Enhanced Vapor Control which includes low leakage nozzles. Require low leakage nozzles for GDFs not subject to Phase II.	Under ARB/EPA's regulatory authority.
20	Portable Fuel Containers Rule	HGB 8-hour attainment plan	Establishes new design "no spill" criteria requirements for portable fuel containers sold, offered for sale, manufactured, and/or distributed in Texas.	Under ARB/EPA's regulatory authority.
21	Pesticides	Bay Area 2005 Ozone Strategy	Reduce solvent content of agricultural pesticide or control pesticide application on Spare the Air days.	Addressed by CA Dept of Pesticides.

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22	Gasoline Transfer Phase I/II	SMAQMD 2008 Draft 8-hour SIP	This control measure will evaluate methods to improve the functions of the in-station diagnostic (ISD) component of the Enhanced Vapor Recovery (EVR) Regulation to reduce VOC and toxic emissions from gasoline dispensing facilities (GDFs).	Under ARB/EPA's regulatory authority. Implemented via CARB EVR program.
23	Leaky refrigerator gases	BAAQMD staff By Ralph Myers	Check Air conditioning and refrigeration equipment during site visits for leaks. This would reduce the amount of refrigerant gases into the atmosphere.	To be implemented as part of AB 32 rule. Also, although not viable as a rule development effort, it could become part of Enforcement staff's inspection activities.
24	Enhance New Consumer Product VOC Limits for 2008-2010	Bay Area 2005 Ozone Strategy	Consumer products VOC limits established with a cap for consumer products or provide incentives to use lower VOC emitting products.	Under ARB's regulatory authority.
25	Enhance New Consumer Product VOC Limits for 2006	Bay Area 2005 Ozone Strategy	Consumer products VOC limits established with a cap for consumer products or provide incentives to use lower VOC emitting products.	ARB has sole authority to directly regulate the VOC content of consumer products, under Health and Safety Code 41712; and would likely not be publicly acceptable.
26	Proper disposal of aerosol spray containers	BAAQMD staff By Van Buren	Implement either an incentive program or a regulatory requirement to require users of aerosol cans containing VOCs to have the cans emptied such that the residual propellants and solvents are not vented into the atmosphere.	Under ARB/EPA's regulatory authority.
27	Consumer Product Certification and Emissions Reductions from Use of Consumer Products at Institutional and Commercial Facilities	SCAQMD 2007 AQMP	Control measure proposes a VOC certification program to provide incentive to high volume user toward super compliant products that would result in over all reductions in VOC's.	Regulation of these products is restricted to CARB.
28	Agricultural Diesel Engine Electrification	Bay Area 2005 Ozone Strategy \TIAX	Create lower electricity rates in order to encourage conversion to electrical agricultural irrigation pumps.	Under CEC's regulatory authority.
29	Implement Existing Pesticide Strategy	Bay Area 2005 Ozone Strategy	Continue implementation by the California Department of Pesticide Regulation of existing strategies intended to reduce VOC emissions from pesticide use.	Addressed CA Dept of Pesticides.
30	Pesticide VOC Reduction	BAAQMD staff Van Buren	Support CARB and other regulatory agency action to implement pesticide VOC limitations. Use water as a pesticide solvent to the maximum possible extent. This control measure would reduce VOC emissions.	Addressed by CA Dept of Pesticides.
31	Limit pesticide and fumigant use Regulations	BAAQMD staff By Van Buren	Clarify when uses of pesticides, herbicides and fumigants are allowed only with (or without) an Authority to Construct/Permit to Operate. I suggest making use equivalent to use of architectural coatings, allowed without a permit except for a fixed facility, such as fumigation chamber, where products to be fumigated are brought to the facility.	The California Department of Pesticide Regulation oversees the application of pesticide to growing crops. They are also responsible for fumigation of food products, but this type of fumigation also requires BAAQMD permits. The potential for emissions was evaluated under FS 5 in the 2005 Ozone Strategy; there were insufficient emissions to warrant further regulation.

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32	Federally Mandated Ozone Nonattainment Fee (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This measure proposes ozone nonattainment fees based on based on SJVUAPCD Rule 3710.	Measure Needing Legislation.
33	Fossil fuel power plants	Bay Area 2005 Ozone Strategy	District should deny permits for fossil fuel power plants in residential communities	No Authority
34	Clean Air Act Emission Fees for Major Stationary Sources	SCAQMD 2007 AQMP	Control measure proposes that if the federal ambient ozone standard is not met by the year 2010, the District shall impose a fee of $5,000 per ton of VOC emitted by each major source in excess of 80 percent of the source's 2010 emissions beginning in 2011.	Existing legislation authorizes fee; does not apply to the Bay Area.
35	Emission Charges of $5,000 per Ton of VOC for Stationary Sources Emitting Over 10 Tons per Year (VOC)	Bay Area 2005 Ozone Strategy	This measure would impose an emissions fee on large stationary sources emitting more than 10 tons per year of VOC.	No Bay Area Authority to collect such fees. Under the California Constitution, article X111 A, section 4 (added by Proposition 13), fees charged in connection with regulatory activities which exceed the reasonable cost of those activities are considered "special taxes" and must be approved by 2/3 vote of the electorate. EPA has authority to impose the fees.
36	Consumer Products not Regulated By The State Board	SCAQMD 2007 AQMP	Regulate products that are not regulated under the CARB consumer products rule.	CH&SC Section 41712(b) stipulates that CARB shall adopt regulations that achieve the maximum achievable emissions reductions from consumer products based on commercial and technological feasibility.

B-3 Transportation Measures with No Authority-Addressed-Implemented by Other Agencies				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Promote use of Pony engines	VCAPCD 2007 Air Quality Plan	Use special battery engines to keep air conditioning and other truck systems working while truck not in use.	Under ARB/EPA's regulatory authority. CARB ATCM on limiting idling.
2	HOV (Spare the Air)	Bay Area 2005 Ozone Strategy	Modify HOV lane requirements, including number of lanes on Bay Bridge, reducing occupancy requirements, expanding time limits on Spare the Air days.	Changing HOV requirements on certain days is deemed difficult to enforce/not feasible.
3	Increase parking at transit centers or stops	VCAPCD 2007 Air Quality Plan	Encourage transit convenience by providing additional parking at transit centers.	Addressed by Regional Agencies and CMA's.
4	County transportation plans must meet GHG reduction goals	Public Suggestion By American Lung Association & TRANSDEF	County transportation plans must meet GHG reduction goals.	Local CMA's prepare these plans.

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B-4 Energy/Climate Measures with No Authority; Addressed/Implemented by Other Agencies				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Advocate for higher electricity rates	Public Suggestion by A. Katz (Breathe California).	Develop incentives and/or regulations, such as use of electricity rate incentives, to reduce stationary source emissions on Spare the Air days.	Electricity rates are under the authority of the California PUC and CEC. The District has no regulatory authority re: electricity rates. The District will continue to promote voluntary reductions from all emission sources on STA days.
2	Locate renewable energy	Public Suggestion by A. Katz (Breathe California).	Locate renewable energy in sites that would move the ISO to reduce emissions	Under the Authority of the CEC and PUC.
3	Higher electricity rates for Spare the Air Days	Public Suggestion by A. Katz (Breath California).	Develop incentives and/or regulations, such as use of electricity rate incentives, to reduce stationary source emissions on Spare the Air days.	Electricity rates are under the authority of the California PUC and CEC. The District has no regulatory authority re: electricity rates. The District will continue to promote voluntary reductions from all emission sources on STA days.

C-1 Mobile Source Measures Not Feasible				
Control Measure Name		Source of Measure	Control Measure Description	Not Recommended for CAP Control Strategy Explanation
1	Diesel particulate filter	BAAQMD staff By G. Solomon	Require facilities where trucks exceed certain idle time, to install a stationary diesel particulate filter. These filters will continue to reduce emissions beyond controls required on the trucks. This could work at ports, berths, bulk terminals, facilities with truck traffic, etc. Stationary abatement devices can be easily monitored and/or source tested for efficiency.	Not Cost Effective.
2	Vehicle Cold Start Emissions in Extreme Cold Conditions	SDAPCD 8-hour Attainment Plan	Programs to reduce motor vehicle emissions which are caused by extreme cold start conditions.	Not applicable to the Bay Area.
3	Concurrent Reductions from Global Warming Strategies	SCAQMD 2007 AQMP	Claim concurrent SIP reductions from all fuel combustion source global warming strategies related to fuel efficiency improvements and renewable energy sources. Quantify current emission reductions from Statewide GHG programs and include in baseline.	Not applicable. 2009 CAP is not a SIP..
4	Emission Reduction from Carl Moyer Program	SCAQMD 2007 AQMP	Proposes to take credit for the emission reductions achieved through past and future projects funded under this program for SIP purposes, in two phases. Phase I is based on the projects implemented from 1998 to 2006. Phase II is new Projects.	Not applicable. 2009 CAP is not a SIP.

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5	Truck Stop Electrification	Bay Area 2005 Ozone Strategy	Elimination of truck idling at truck stops by providing hook-ups for air, heating and cooling and electric power to run truck systems and trailer refrigeration.	De minimis emission reductions.
6	Smog Check (Spare the Air)	Bay Area 2005 Ozone Strategy	Provide free smog check on STA days, including gas cap test.	All Bay Area vehicles between 5 - 30 years of age are already required by State law to undergo smog check biennially. Offering free smog checks on a very limited number of days per year is not expected to significantly increase compliance or reduce emissions. De minimis emission reductions.
7	Free Gas Caps	Bay Area 2005 Ozone Strategy /TIAX	Provide free replacement gas caps to light- and medium-duty vehicle owners.	Smog checks in the Bay Area include a test of the vehicle's evaporative control system. Missing or malfunctioning gas caps have to be repaired. Thus, this measure would mainly apply only to vehicles not required to submit to smog check. De minimis emission reductions.
8	Restrict Use of Portable Engines	Bay Area 2005 Ozone Strategy \TIAX	Prohibit the use of portable engines on Spare the Air days.	Not Publicly Acceptable.
9	Incentives to Shift Non Construction Off-road Emissions to Low Ozone Season	Bay Area 2005 Ozone Strategy \TIAX	Provides incentives to not operate commercial and industrial equipment (non-construction) during the ozone season.	Not Cost Effective.
10	Pilot credit generation (2001 SIP process)	Bay Area 2005 Ozone Strategy	Electric ship hotelling to generate mobile source emission credits.	SCAQMD has such a mobile source credit measure, SCAQMD Rule 1632, which produces no net reduction in emissions. It simply allows reductions in hotelling emissions as credits against other required emission reductions. This measure produces no emission reductions.
11	Information on Specific Emission Requirements	Public Suggestion from San Jose - Friday, April 18, 2008	Provide emission data for specific engines to allow easier access to information about emission requirements; also provide the options available for each engine.	De Minimis Emissions Reductions. Similar program exists; ARB website contains this information.
12	Banning Pre-Tier 3 Off-Road Diesel Engines During High Pollution Days	SCAQMD 2007 AQMP	Proposes to ban the use of pre-Tier 3 off-road diesel engines after 2023 during high pollution days should the Basin fail to meet the 8-hour ozone standard.	Not relevant within time frame of 2009 CAP.
13	Mowing Restrictions	Bay Area 2005 Ozone Strategy \TIAX	Ban the use of lawn and garden equipment on Spare the Air days.	Not Publicly Acceptable.
14	Episodic/Regional Controls	SJVAPCD 2007 Ozone Plan	Incentive and regulatory-based measures designed to reduce ozone concentrations at hot-spot locations during the worst days of the ozone season, perhaps including episodic provisions in many incentive and regulatory measures.	Not Publicly Acceptable
15	Parking on Spare the Air	Bay Area 2005 Ozone Strategy	Implement parking surcharge on Spare the Air days at worksites and BART stations.	Not Publicly Acceptable.

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16	Mowing Restrictions	Bay Area 2005 Ozone Strategy \TIAX	Ban the use of lawn and garden equipment on Spare the Air days.	Not Publicly Acceptable.
17	Episodic/Regional Controls	SJVAPCD 2007 Ozone Plan	Incentive and regulatory-based measures designed to reduce ozone concentrations at hot-spot locations during the worst days of the ozone season, perhaps including episodic provisions in many incentive and regulatory measures.	Not Publicly Acceptable
18	Parking on Spare the Air	Bay Area 2005 Ozone Strategy	Implement parking surcharge on Spare the Air days at worksites and BART stations.	Not Publicly Acceptable.
19	Diesel Trucks (Spare the Air)	Bay Area 2005 Ozone Strategy	Shift diesel truck traffic to weekends on STA weekdays.	Not Publicly Acceptable.
20	Limiting Pleasure Craft/Vehicles Use	Bay Area 2005 Ozone Strategy \TIAX	Ban the use of all pleasure craft and off-road recreational vehicles on Spare the Air days.	Not Publicly Acceptable.
21	Ban or Restrict Use of Recreational Vehicles	Bay Area 2005 Ozone Strategy \TIAX	Ban or limit the use of recreational vehicles (not boats) from operating on Spare the Air days.	Not Publicly Acceptable.
22	Limiting Pleasure Craft/Vehicle Use Above 100F	Bay Area 2005 Ozone Strategy \TIAX	Prohibits the use of recreational boats when temperatures exceed 100 degrees F.	Not Publicly Acceptable.

C-2 Stationary Source Measures Not Feasible				
Control Measure Name		Control Measure Description	Not Recommended for CAP Control Strategy Explanation	Control Measure Name
1	Asphalt Paving/Roofing	Bay Area 2005 Ozone Strategy \TIAX	Control measure is based on SMAQMD measure SN-112. This measure would require controls on asphalt kettles used in built-up roofing. The measure proposes two levels of controls. The first would involve a requirement for the use of covers on kettles similar to requirements found in some air district rules. The second level of control would mandate the use of afterburners for kettles.	Most emissions from asphalt roofing come during the application of hot asphalt to a roof. It therefore seems unlikely that afterburners would produce significant reductions in emissions. The measure would produce de minimis emission reductions.
2	Oxidation Catalyst or 3-way Catalyst on all prime Rich Burn Engines, including LFG and digester gas fueled engines.	BAAQMD staff recommendation By Van Buren	Require either an oxidation catalyst or a 3-way catalyst on all prime reciprocating rich burn Otto Cycle spark ignited non- vehicular internal combustion engines. Require small digester-fueled and LFG-fueled IC engines to be abated or be lean burn.	This measure, as stated, would increase emissions of criteria pollutants, although it may mitigate some increases in GHG emissions. In part, it has been considered in FSM 9: Consideration of GHG Emissions in BACT Determinations.

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3	Wood and Paper	Bay Area 2005 Ozone Strategy \TIAX	This measure is based on SMAQMD SN-62. This measure would impose controls on fiberboard manufacturing or other similar processes such as plywood manufacturing.	There are no fiberboard, plywood, or other similar facilities in the District.
4	Glass Coating Operations (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This control measure proposes that the District implement SJVUAPCD adopted Rule 4610: Glass Coating Operations which requires the use of low-VOC coatings on glass, including mirror backing coatings.	District inventory of these facilities is very limited.
5	Offsetting The Potential Emission Increase Due to the Change In Natural Gas Specifications	SCAQMD 2007 AQMP	Proposes to offset any potential emission increases at RECLAIM facilities due to the introduction of natural gas with a Wobbe Index greater than 1360.	District does not have a RECLAIM program
6	Asphalt Concrete Production	Bay Area 2005 Ozone Strategy	This measure proposes the control of ROG and NOx emissions from asphalt concrete batch plants to a level comparable to the best controlled plants in California.	The projected emissions reductions are de minimis. Plants in the district are already subject to BACT.
7	Agricultural Irrigation Engines	Bay Area 2005 Ozone Strategy	This control measure is based on SJVUAPCD incentive program to control NOx emission from agricultural irrigation engines.	The projected emissions reductions are de minimis. The very limited use of irrigation engines in the District mean that this would result in very minor emission reductions.
8	Furnaces (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This control measure, proposed by SJVUAPCD in their 2002 and 2005 Rate of Progress Plan, seeks to control NOx emissions from furnaces. The Houston SIP was cited as a potential source for a standard for these operations. The Texas Administrative Code (TAC) includes provisions prohibiting the use of heavy distillate oils in home heating units (30 Texas Administrative Code section 106.102), but no provisions limiting NOx emissions. The TAC also includes standards for metallurgical and pulping liquor furnaces.	NOx emissions from metallurgical operations are about 0.01 tons per day and there are no pulping liquor furnaces in the Bay Area.
9	Cutback Asphalt Application (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This control measure, proposed by SJVUAPCD in their 2002 and 2005 Rate of Progress Plant, seeks to further control the allowable solvent content of cutback asphalt to reduce VOC emissions.	In the BAAQMD, emissions from asphalt paving are about 0.3 tons per day, and organic content of asphalt is already limited to extremely low levels.
10	Wineries	Bay Area 2005 Ozone Strategy	Control the emissions from fermentation processes in wineries.	Not Cost Effective.
11	Chamber Fumigation of Agricultural Products (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Control emissions from fumigation chambers used for agricultural products. Various agricultural commodities, including nuts and grains, are frequently fumigated in chambers during processing.	Emissions from this activity are insignificant in the Bay Area.
12	Formica Manufacturing	Bay Area 2005 Ozone Strategy	Limit emissions from Formica manufacturing facilities.	There are no facilities that manufacture this type of material in the Bay Area.

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13	Agricultural Engines	Bay Area 2005 Ozone Strategy \TIAX	Reduce emissions from diesel agricultural irrigation engines by 1) requiring all replacement pumps to be electric, 2) requiring early retirement of deep well and lifter pump engines, and/or 3) automate irrigation schedules to reduce water usage.	The projected emissions reductions are de minimis. There is limited use of irrigation engines in the District.
14	Pleasure Craft Coating	Bay Area 2005 Ozone Strategy	Adopt VOC limits for surface coating of pleasure craft consistent with South Coast, Ventura and San Diego.	This is an emission reduction that is de minimis. There are limited facilities in the Bay Area.
15	Valves and Flanges (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	The ARB compared South Coast, Bay Area, Sacramento and San Joaquin valve and flange rules and concluded that there did not seem to be significant emission reductions to be gained from this source category.	BAAQMD Regulation 8, Rule 18.
16	Water Heaters & Boilers, 75,000 Btu/hr - 2 MMBtu/hr (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Further control NOx emissions from water heaters and steam boilers of greater than 75,000 btu/hr.	In 2008 BAAQMD amended Regulation 9; Rule 6 to incorporate NOx emission limits for heaters up to 2 MM BTU/hr.
17	Magnet Wire Coating Operations (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Control emissions from magnet wire coating operations.	These operations are subject to District Regulation 8, Rule 26: Magnet Wire Coating Operations.
18	Organic Liquid Loading/Transfer (SJVUAPCD)	Bay Area 2005 Ozone Strategy	Further control emissions from the loading and transfer of organic liquids.	BAAQMD Regulation 8, Rule 33 and Regulation 8, Rule 39.
19	Plastic Welding Adhesive	Bay Area 2005 Ozone Strategy	Lower VOC limit for plastic welding adhesive from 500 g/l to 450 g/l and its VOC limit for specialty contact adhesive from 400 g/l to 250 g/l.	This is an emission reduction that is de minimis.
20	Breweries	Bay Area 2005 Ozone Strategy	Control ethanol emissions from breweries by 25% using water scrubbers or carbon adsorption.	Emissions from fermentation operations are de minimis.
21	Solvent Degreasing (2003 ARB rule comparison)	Bay Area 2005 Ozone Strategy	Solvent Degreasing rule comparison with other Air Districts.	This is an emission reduction that is de minimis.
22	Food and Ag Processing	Bay Area 2005 Ozone Strategy \TIAX	Impose NOx controls on dryers used in the processing of fruits, grain, rice, cereals, tomatoes, and other crops.	This is an insignificant source category, and emission reductions would be de minimis.
23	Pharmaceutical and Cosmetic Manufacturing	Bay Area 2005 Ozone Strategy	Reactors, distillation columns, crystallizers, and centrifuges should be required to meet 85% control system efficiency and 90% control efficiency.	Total emissions for point sources in this category insignificant.
24	Offset Trigger Levels	Bay Area 2005 Ozone Strategy	Lower offset trigger levels from 50 TPY to 15 TPY and require an offset ratio of 1.3:1 for offsets not at the site.	Changing the offset ratio from 1:15 to 1:3 for major sources would decrease the availability of existing offset credits, but would have no effect on real emissions. This is because offsets come almost entirely from the banking of emission reductions achieved by the closure of plants.
25	BAAQMD Rule 8-6 Bulk Plants and Terminals	Bay Area 2005 Ozone Strategy	Sacramento suggests that BAAQMD Rule 8-6 should include a standard of 0.08 lbs/1000 gals for loading racks at terminals as found in Sacramento Rule 447.	Due to small inventory and cost ineffectiveness, this control proposal is not recommended.

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26	Promotion of Catalyst-Surface Coating Technology Programs (All Pollutants)	Bay Area 2005 Ozone Strategy	This measure suggests coating of surfaces that contact large amounts of ambient air with catalysts that would convert ozone or CO into harmless gases.	Because it is unknown whether use of the catalyst can have any real impact on ambient ozone levels and because air conditioning is less widely used in the Bay Area due to its cooler climate, this measure is deemed to have de minimis emission reductions at this time.
27	Industrial Process Operations (VOC)	Bay Area 2005 Ozone Strategy	Further reduce VOC emissions from miscellaneous industrial operations ranging from rubber, plastic, and glass manufacturers or fabricators to bakeries.	De minimis emissions reductions.
28	Fuel Handling/Portable Gasoline Containers	Bay Area 2005 Ozone Strategy \TIAX	Provide incentives for the surrender of gasoline containers used to fuel lawnmowers and other lawn and garden equipment.	Emission reductions would depend upon funding availability. Emission reductions, however, are likely to be de minimis.
29	Efficient Agricultural Practices	Reviewed CAP 2005\TIAX	Outreach campaign to encourage farms to reduce water use, reduce organic pesticide use, and lower diesel emissions from agricultural engines. The primary focus is irrigation engines.	The projected emissions reductions are de minimis. Emissions from agricultural irrigation engines are a very minor part of the Bay Area emissions inventory.
30	Unspecified Coating	Bay Area 2005 Ozone Strategy	None stated.	The suggested measure does not contain any regulatory requirements or emission reductions.
31	Agricultural Irrigation Engines	Bay Area 2005 Ozone Strategy	This measure would reduce NOx emissions from diesel engines used to run irrigation pumps by requiring replacement with electric motors or emission controls.	The projected emissions reductions are de minimis. Emissions from agricultural irrigation engines are a very minor part of the Bay Area emissions inventory.
32	Lime Kilns (SJVUAPCD)	Bay Area 2005 Ozone Strategy	This measure proposes limits for lime kilns based on SJVUAPCD Rule 4313.	The SJVUAPCD rule applies to the one lime kiln located in the San Joaquin Valley. There are no lime kilns in the Bay Area.
33	Natural Gas Fuel Specifications	Reviewed CAP 2005\TIAX	Examine whether natural gas with higher-than-normal levels of ethane and propane lead to higher NOx emissions that could be reduced through fuel specifications.	Hot gas is not supplied in the Sacramento area; there are no available emission reductions. This is also true of the San Francisco Bay Area.
34	Bakery Ovens (SJVUAPCD)	Bay Area 2005 Ozone Strategy	In May, 2002, SJVUAPCD adopted Rule 4693 which requires ovens at major facilities to reduce emissions by 95%.	Only one source, would result in de minimis emissions reductions.
35	2000 CAP A6 - Surface Coating of Plastic parts and Products Rule	Bay Area 2005 Ozone Strategy	The 2000 Clean Air Plan measure A6 recommended lower VOC limitations for plastic parts coating and inclusion of rubber and glass coating similar to South Coast Rule 1145.	There is only one glass coating facility in the District. It is currently controlled by permit conditions to similar levels.
36	Fuel Handling	Bay Area 2005 Ozone Strategy	Speed-up changeover of old portable gasoline containers by incentivizing purchases of new ones that meet CARB standards. Provide discounts for new cans, require surrender of cans with lawnmower scrappage program, and give new cans to commercial operators.	Emission reductions are likely to be de minimis.

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37	2000 CAP F7 - Easing of Administrative Requirements for Use of Lower Emitting Technology	Bay Area 2005 Ozone Strategy	Further Study Measure F7 from the 2000 Clean Air Plan recommends that, in some cases in conjunction with other regulatory actions, administrative requirements could be eased to encourage technologies that emit less than a rule requires.	District regulations are, for the most part, command and control type measures. To qualify as State Implementation Plan (SIP) credit, emission reductions must be quantifiable and enforceable. Command and control limits meet the SIP credit requirements because emission reductions can be quantified based on current technologies employed by a type of source as adjusted to the new limits and enforceable because the rules do not allow variation above the set limit
38	Oil Well Degassing	VCAPCD 2007 Air Quality Plan	Implement VCAPCD Rule to control VOC emissions from oil wells prior to repair work.	Oil production is extremely limited in BAAQMD.
39	Unspecified Coatings	SCAQMD 2007 AQMP	This category is comprised of VOC emissions from coatings that are not otherwise captured in a specific coating category. The control measure list the most restrictive rules from other Districts and the only VOC limit that is less than our current limits are for General one-component glass coating at 275 g/l.	There is only one glass coating facility in the District. It is currently controlled by permit condition to similar levels.
40	Clean Coatings Certification Program	SCAQMD 2007 AQMP	This measure would entail development of a certification program for low-, ultra low-, or zero-VOC content coatings similar to that for the Clean Air Solvent program. Use of certified "Clean Air Coatings" would be exempted from coating usage totals for purposes of permit fee calculations.	Voluntary program that exempts coatings from fee totals. No quantifiable emission reduction.
41	Glass coating (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that glass coating VOC limits developed by SJVAPCD be evaluated for feasibility in other air districts.	The Bay Area inventory of facilities that coat glass other than the mirror manufacturer is very limited. .
42	Lime Kilns	MBUAPCD 2008 Air Quality Management Plan	Establish NOx limits for existing devices.	District has no lime kilns.
43	Lime Kilns	SJVAPCD 2007 Ozone Plan	Reduce NOx limits in Rule 4313 to unspecified levels.	District has no lime kilns.
44	Facility Modernization	SCAQMD 2007 AQMP	Obtains further emission reductions by requiring that facilities modernize permitted equipment and processes and use super-compliant materials. For VOC emission reductions, super-compliant VOC materials would be required for surface coating applications, where feasible, beginning with 10 tpy or greater VOC facilities. High emitting spray booth facilities subject to Rule 1132 are excluded from this measure, because they are already subject to a 65% facility-wide reduction in VOC emissions.	Not Technologically Feasible.

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45	Emissions Bank and Trade /Mass Emission Cap and Trade (MECT) NOX trading program for HGB area	HGB 8-hour attainment plant	NOX trading program for HGB area.	In the Bay Area, utility boilers, refinery heaters, stationary IC engines, gas turbines and industrial boilers are regulated to the maximum extent feasible for each source category.
46	Further Emission Reductions from Cutback Asphalts	SCAQMD 2007 AQMP	Reduce emissions from asphalt paving applications by limiting the use of cutback asphalt and/or replacing it with emulsified asphalt.	BAAQMD emission inventory shows less than 0.01 tons per day for this source category.
47	Application of All Feasible Measures	SCAQMD 2007 AQMP	This control measure addresses the attainment of further emission reductions through the amendment of existing rules and regulations. Further emission reductions would be sought from the amendment of existing rules and regulations to reflect new BARCT standards, but may become available in the future.	Not a control measure.
48	Economic Incentive Programs	SCAQMD 2007 AQMP	Broaden the existing emissions credit market.	Evidence indicates emission reductions from RECLAIM are less than those achieved through command and control regulation such as that in the Bay Area. (USEPA, Region 9, "An Evaluation of the South Coast Air Quality Management District's Regional Clean Air Incentives Market - Lessons in Environmental Markets and Innovation," November, 2002)..
49	Oil Production Sumps (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Require increased control on sumps associated with oil production.	In the Bay Area, the emissions inventory for crude oil production is only 0.02 tons/day. Oil production sumps are a small fraction of that.
50	Heavy Crude Oil Components	SJVAPCD 2007 Ozone Plan	Control fugitive emissions from heavy oil components.	Emissions from crude oil wells in the Bay Area are 0.02 tons per day.
51	Wine Fermentation and Storage (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Recommend a further evaluation of control potential for wine fermentation and storage.	Not cost-effective. Due to the likely high cost, this control measure is not recommended.
52	Aerospace coating (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that aerospace coating VOC limits developed by South Coast AQMD be evaluated for feasibility in other air districts.	The emissions from the source category are, in total, de minimis.
53	Sewer Gas Controls	Bay Area 2005 Ozone Strategy	Rather than vent sewer gases through plumbing vent stacks on structures served by sewers, sewer gases should be captured and used or controlled.	Due to ubiquitous nature of vents and estimated high costs of control, deemed not cost-effective.
54	Wastewater Systems (2001 SIP process)	Bay Area 2005 Ozone Strategy	Further Study Measure FS-9 from the 2001 Ozone Plan suggests additional control of emissions from drains, pipes, and junction boxes in refinery wastewater treatment systems and investigation of the potential to control emissions from other areas of the treatment system.	FS-9 was completed in 2005 and Amendments to Regulation 8-8 control emissions from waste water collection and treatment. Further controls on waste water ponds were not recommended because of high abatement cost and limited emission reduction potential.

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55	Agricultural Above Ground Gasoline Storage Tanks	SJVAPCD 2007 Ozone Plan	Reduce evaporative emissions of VOC from agricultural above ground storage tanks by increasing heat reflection and installing a pressure vacuum vent valve on the tanks.	0.04 tons/day of ROG emissions in the Bay Area. Consequently, emissions are de minimis.
56	Cap and Trade Emissions Reduction Program similar to RECLAIM	Bay Area 2005 Ozone Strategy \TIAX	This measure would implement a cap and trade program like the South Coast AQMD RECLAIM program.	Such a system could not be established in the Bay Area within the planning horizon.
57	Steam Drive Oil Production Wells (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to further reduce VOC emissions from steam driven oil production wells.	There are no sources in this category in the BAAQMD.
58	Sumps, Pits & Wastewater Processing Equipment (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to further reduce VOC emissions from refinery wastewater processes, specifically, sumps, pits and wastewater processing equipment.	FS-9 was completed in 2005 and Amendments to Regulation 8-8 control emissions from waste water collection and treatment. Further controls on waste water ponds were not recommended because of high abatement cost and limited emission reduction potential.
59	Metal Parts Coating (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	This measure suggests that the VOC limits in South Coast Rule 1107: Coating of Metal Parts and Products, and San Diego Rule 67.3: Metal Parts and Products Coating Operations, be evaluated for inclusion in rules based on California Clean Air Act requirements.	The District rule has stricter VOC limits for surface preparation solvent. In the year 2000, District-wide total gallons of paint used had an "excess emission" of less than 0.002 tons per day.
60	Lime Kilns (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that NOx limits for lime kilns developed by San Joaquin Valley UAPCD be evaluated for feasibility in other air districts.	There are no lime kilns in the Bay Area.
61	Glass Melting	NY SIP 8-Hour Ozone	New York has proposed to implement Ozone Transport Commission (OTC) model rule, including a 4.0 lb NOx/ton glass limit for container glass on a 24-hr basis. This is lower than the current limit in BAAQMD Regulation 9, Rule 12 (5.5 lb/short ton, 24-hr avg).	District sources are extremely limited.
62	Wineries (SJVUAPCD)	Bay Area 2005 Ozone Strategy	SJVUAPCD has proposed, in their 2002 and 2005 Rate of Progress Plan, to reduce emissions from fermentation processes in wineries.	The emissions from wine fermentation are estimated to be 51.1 tons/year. This is derived from emission factors for wines and wine production for each Bay Area wine production area. As an annual average, emissions from fermentation would be 0.14 tons/year; however, fermentation is only for part of the year, so 365 (days per year) is not an appropriate divisor. De minimus emissions reduction.
63	Refinery Wastewater Systems (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Similar to measure in San Joaquin 2007 Ozone Plan.	FS-9 was completed in 2005 and Amendments to Regulation 8-8 control emissions from waste water collection and treatment. Further controls on waste water ponds were not recommended because of high abatement cost and limited emission reduction potential.
64	HOTS and Gauge Tanks (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Regulation VOC emissions from Heavy Oil Test Stations and Gauge Tanks	In the Bay Area, crude oil production emits only 0.02 tons/day of emissions, HOTS (if any exist) and gauge tanks are a fraction of that.

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65	Pesticide Fumigation Chambers (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Study the fumigation of post-harvest agricultural products.	Pesticide use during crop production is subject to regulations promulgated by California Department of Pesticide Control. However, pesticide use during food product preparation is subject to Air District standards. In 2007, BAAQMD staff conducted a survey of food product manufacturing facilities and found that only three sources emit more than 3 pounds/day VOC emissions. The total for all food product sources is 0.1 ton/day. Of the three largest sources, the VOC emissions are not from fumigation.
66	Asphalt Paving (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Reduce emissions from asphalt paving applications by limiting the use of cutback asphalt and/or replacing it with emulsified asphalt. The most effective way to control emissions from asphalt paving is to reduce the VOC content in cutback as well as emulsified asphalts. Another strategy is to prohibit the use of high VOC containing asphalts by using seasonal restrictions, or limit its use to certain applications.	BAAQMD emission inventory shows less than 0.01 tons per day for this source category.
67	Further reductions from Organic Liquid Storage (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that emission limits found in South Coast AQMD Rule 1178: Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities be evaluated for feasibility in other air districts.	Amended to District Regulation. 8-5 completed in 2006. De minimis emissions reductions to be gained from additional measure.
68	Clean Coatings Certification Program	SCAQMD 2007 AQMP	Implement a Clean Coatings Certification Program similar to the South Coast "Clean Air Solvent" program that would allow a facility to reduce emissions fees for the clean air coatings used. Clean Air Coatings would be no or very low VOC and may meet other criteria, such as toxic content.	De minimis emission reduction.
69	Economic Incentive Programs	SCAQMD 2007 AQMP	Implement voluntary program to provide additional compliance flexibility to regulated sources in the Basin, provide incentives for the early installation and commercialization of advanced pollution control technologies, and lower overall compliance costs.	De minimis emission reduction.
70	Laser-targeted HVLP Spray Guns	BAAQMD staff By Van Buren	The US EPA identified laser-targeted HVLP spray guns as able to reduce emissions by applying coating more accurately so that less coating is applied. This control measure would either be an incentive program to encourage use or a rule change to require use of these spray guns. This control measure would reduce VOC emissions.	Not cost-effective.
71	Point Source NOX	HGB 8-hour attainment plan	Reduce NOx from stationary sources via a cap and trade program.	Such a system could not be established in the Bay Area within the planning horizon

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72	GHG verification	BAAQMD staff By Bostick	Create GHG verification and certification or legal registration of voluntary GHG reductions. Create own inventory and verification program.	Worthwhile program, but would not reduce emissions.
73	Aircraft vapor recovery (2001 SIP process)	Bay Area 2005 Ozone Strategy	Require Phase II (aircraft fueling) vapor recovery for aviation gas and jet fuel.	Aircraft fill neck configurations not compatible with vapor recovery nozzles.
74	Restrict Use of Diesel Agricultural Water Pumps to Night Time	Bay Area 2005 Ozone Strategy \TIAX	Restrict use of diesel agricultural water pumps to nighttime on Spare the Air Days.	Emissions from diesel agricultural water pumps in the Bay Area are approximately 0.1 tpd.
75	Food product manufacturing and processing (CAPCOA AFM review)	Bay Area 2005 Ozone Strategy	The CAPCOA All Feasible Measures Review process recommends that emission limitations for food product manufacturing and food processing developed by South Coast AQMD be evaluated for feasibility in other air districts.	This was a 2005 Ozone Plan FSM5. FSM 5 was completed in 2007. There are no sources uncontrolled that collectively create sufficient emissions to warrant control.
76	Natural Gas Fuel Specifications (NOx)	Bay Area 2005 Ozone Strategy	This measure would set higher heating value limits for natural gas.	This hot gas is produced in Southern California and is not sold in Northern California. This measure would produce no emission reductions.
77	Natural Gas Fuel Specification	SCAQMD 2007 AQMP	Based on a SCAQMD 2007 control measure, this measure proposes to monitor and test natural gas supplies to develop improved emission factors; and Implement a natural gas quality standard.	Not Enforceable.
78	Further SOx Reductions for RECLAIM	SCAQMD 2007 AQMP	Require further reductions from RECLAIM program for emissions of SOx.	Several control measures are proposed to reduce SOx in the Bay Area. The Bay Area does not have a RECLAIM program as does South Coast. Reductions are to be achieved on an individual source category bases.
79	Bakeries	SJVAPCD 2007 Ozone Plan	Control measure would further reduce emission from bakeries.	This is an insignificant source category, and emission reductions would be de minimis.
80	Brandy and Wine Aging	SJVAPCD 2007 Ozone Plan	Measure would control emissions from brandy and wine aging.	Due to the likely high cost, this control measure is not recommended.
81	New car interiors	Bay Area 2005 Ozone Strategy	During the 2001 SIP development process, a suggestion was made to require control of VOC that off-gasses in new cars.	The emissions are less than a de minimis level; this control measure is not recommended.
82	Further Emission Reductions from Cutback Asphalts	SJVAPCD 2007 Ozone Plan	Control measure is based on SJVAPCD proposal to prohibit asphalt paving during Spare the Air days.	Not cost effective.
83	Efficient Agricultural Practices	Reviewed CAP 2005\TIAX	This control measure suggests an outreach campaign to encourage farms to reduce water use, reduce organic pesticide use, and lower diesel emissions from agricultural engines. The primary focus is irrigation engines.	Emissions from agricultural irrigation engines are minor.
84	Prohibit the filling of non-CARB approved portable fuel containers and promote correct filling procedures.	BAAQMD staff By Van Buren	This control measure prohibits the filling of non-CARB approved portable fuel containers (gas cans). This control measure would reduce VOC emissions.	Not Enforceable.

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85	Prohibit topping off for diesel fueling	BAAQMD staff By Van Buren	Prohibit topping off for diesel fueling	Not Enforceable
86	Refueling at Marinas	BAAQMD staff By Van Buren	Require Phase II vapor recovery nozzles (vacuum assist) and/or low-leakage nozzles are marinas.	Not Technologically Feasible.
87	ICE Pump Electrification/Efficiency (San Joaquin 2007 Ozone Plan)	SJVAPCD 2007 Ozone Plan	Electrify diesel agricultural pumps.	Agricultural pumps in the Bay Area total less than a de minimis amount of emissions - 0.01 tons per day NOx. The measure would require electrification of diesel agricultural pumps. This is probably not cost effective and may have technical limitations.
88	Source by Source Analysis	Public Suggestion by A. Katz (Breath California)	Source by Source analysis of each source category to identify additional emission reductions and technologies	A review of emissions categories was done to develop existing control measures.
89	Emissions Mitigation at Federally Permitted Projects	SCAQMD 2007 AQMP	Measures to mitigate stationary source emission increases in SCAB due to new major stationary sources outside SCAB.	No Sources within Bay Area

C-3 Energy/Climate, Transportation, and Other Measures Not Feasible				
Control Measure Name		Control Measure Description	Not Recommended for CAP Control Strategy Explanation	Control Measure Name
1	SIP credit for transfer of development rights	Public Suggestion by TRANSDEF	The District, or others, would purchase development rights on the fringes of the Bay Area, subject to a regional land use preservation planning process. The District would arrange with urbanized jurisdictions for the use of the development rights in the vicinity of transit stops. This process would transfer density to cities, resulting in a dramatic reduction in VMT generated by new development, thus mitigating the impact of the projected rate of VMT growth exceeding the rate of population growth	Not applicable. 2009 CAP is not a SIP.
2	Major Investment Study	Public Suggestion By TRANSDEF	Require that any project advanced by MTC into an RTP or TIP must first have completed an MIS process that includes the analysis of a LUTRAQ alternative, i.e., a transit alternative coupled with Smart Growth--land use densification around transit stops similar to the Western Bypass study in Portland, OR.	MIS is no longer a federal requirement so therefore is not formally recognized. The environmental document is the appropriate venue to assess a range of reasonable alternatives, including land use scenarios.

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3	Community-based emissions trading program	Bay Area 2005 Ozone Strategy	Control measure provides communities with incentives to reduce household and business emissions through vehicle scrappage, no or low drive days, energy efficiency measures, small motor replacement programs, and chimney or BBQ retrofits.	It is unclear whether any true overall emissions reductions could be achieved through such a program.
4	Clean Air Act Emission Fees For Major Stationary Sources	SCAQMD 2007 AQMP	If the federal ambient air standards are not met by the year 2024, the District shall impose an emissions fee of $5,000 per ton of any pollutant emitted by each major source in excess of 80 percent of the sources baseline emissions	Not relevant within time frame of 2009 CAP.
5	Economic Incentive Programs (All)	Bay Area 2005 Ozone Strategy	Control measure is based on SCAQMD measure FLX-01. This measure would augment SCAQMD's various economic incentive and trading programs. The measure would create no emission reductions but would simply broaden trading options.	The measure would create no emission reductions but would simply broaden trading options.

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