

**REASONABLY AVAILABLE CONTROL MEASURES ANALYSIS  
FOR THE 2015 OZONE STANDARD**

prepared by:

Sacramento Area Council of Governments

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# REASONABLY AVAILABLE CONTROL MEASURES ANALYSIS

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## 1. INTRODUCTION

On October 26, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb).<sup>1</sup> EPA designated the Sacramento region as serious nonattainment for the 2015 8-hour ozone NAAQS and will be acting on a request to redesignate the region to severe. For a nonattainment area classified as severe-15, the regulatory attainment deadline is 15 years after the effective date of initial designation, which means the Sacramento region must attain the 2015 standard by the end of 2032. And, since EPA requires three full years of clean data to demonstrate attainment, a new attainment year of 2032 must be modeled and addressed in both conformity and Reasonably Further Progress (RFP) demonstrations. The requirement to assess Reasonably Available Control Measures (RACM) per Clean Air Act (CAA) Section 172(c)(1) must be met as part of the SIP development process for an ozone nonattainment area. The CAA mandates that RACM analysis must be conducted in order to show that the Sacramento region has adopted all RACM to achieve attainment of the 2015 8-hour ozone standard as expeditiously as practicable.

This report provides a preliminary RACM analysis that was completed by the Sacramento Area Council of Governments (SACOG) in consultation with the Sacramento Metropolitan Air Quality Management District (SMAQMD), on behalf of the districts in the non-attainment area, in order to meet the 8-hour ozone standard state implementation plan (SIP) requirements. Specifically, this draft report summarizes ozone SIP RACM requirements, documents the transportation control measure (TCM) identification process, and also provides preliminary RACM determination specific to SACOG.

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<sup>1</sup> EPA, 2015. National Ambient Air Quality Standards for Ozone. Final Rule. U.S. Environmental Protection Agency. Federal Register Vol. 80. FR 65292 (2015)

## 2. RACM REQUIREMENTS

In order to demonstrate attainment of the federal ozone standard as expeditiously as practicable as required by the CAA, nonattainment areas “should consider all available measures, including those being implemented in other areas, and ... must adopt measures for an area only if those measures are economically and technologically feasible and will advance the attainment date or are necessary for RFP.”<sup>2</sup>

This RACM analysis focuses on transportation control measures (TCMs) or strategies that reduce travel and thereby achieve air quality benefits and that are specifically identified in a State Implementation Plan (SIP). Once TCMs are included in a SIP, SACOG is legally bound to implement these measures in order to satisfy timely implementation demonstration requirements as part of the transportation planning process. If funds programmed for TCMs do not become available or if the schedule identified in a SIP cannot be met, the agency faces serious consequences, one of which could be a nonconforming Metropolitan Transportation Plan (MTP).

The criteria for identifying TCM projects and the requirements for timely implementation of these projects are defined in the EPA’s Transportation Conformity Rule, 40 CFR Part 93:

*A TCM is any measure that is specifically identified and committed to in the applicable implementation plan, including a substitute or additional TCM that is incorporated into the applicable SIP through the process established in CAA section 176(c)(8), that is either one of the types listed in CAA section 108, or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the first sentence of this definition, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs for the purposes of this subpart.*

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<sup>2</sup> EPA, 2018. Final Rule: Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements Federal Register, Volume 83, 6 December 2018.

Furthermore, Clean Air Act Section 108(f)(1)(A) specifically identifies the following measures as TCMs for consideration in the RACM analysis:

- i. Programs for improved use of public transit;
- ii. Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
- iii. Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
- iv. Programs to control extended idling of vehicles;
- v. Programs to reduce motor vehicle emissions, consistent with Title II of the Clean Air Act, which are caused by extreme cold start conditions;
- vi. Employer-sponsored programs to permit flexible work schedules;
- vii. Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;
- viii. Programs for new construction and major reconstruction of paths, tracks, or areas solely for the use by pedestrian or other non-motorized means of transportation, when economically feasible and in the public interest;
- ix. Programs to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks;
- x. Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
- xi. Employer-based transportation management plans, including incentives;
- xii. Trip-reduction ordinances;
- xiii. Traffic flow improvement programs that achieve emission reductions;
- xiv. Fringe and transportation corridor parking facilities, serving multiple occupancy vehicle programs or transit service;
- xv. Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use; and
- xvi. Programs for the provision of all forms of high-occupancy, including shared-ride services.

According to the EPA ozone RACM guidance,<sup>3</sup> fulfillment of the RACM requirement is dependent on an assessment of candidate control measures that are economic and technological feasible, applicable to the region, and can be implemented shortly after adoption. More specifically, the evaluation criteria used in this analysis include:

- Technological feasibility
- Economically feasibility
- Does not cause “substantial widespread and long-term adverse impacts,” or be “absurd, unenforceable, or impracticable”
- If considered collectively with all other control measures (point source, non-point source, mobile source, non-mobile source) advances the attainment date by at least one year.

In addition, measures identified by EPA in any related guidance documents and measures that have been suggested during a public comment period must be considered. TCMs may be voluntary or market-based programs, as long as they produce surplus, quantifiable, permanent and enforceable emission reductions (i.e., are SIP-creditable).

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<sup>3</sup> Seitz, John S., Office of Air Quality Planning and Standards, Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas, 1999. Available at [https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/19991130\\_seitz\\_racm\\_guide\\_ozone.pdf](https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/19991130_seitz_racm_guide_ozone.pdf).

### 3. TCM IDENTIFICATION PROCESS

To meet the RACM requirements described above, this analysis was performed using the following steps. First was the assembly of a comprehensive list of control measures recently implemented in other California ozone nonattainment areas, as well as in other states. Measures identified in this review were then organized according to the 16 categories specified in Section 108(f)(1)(A) of the CAA. The next step was to identify candidate RACM by contrasting the list of TCMs with measures implemented in the Sacramento region, as well as any new projects that qualify as TCMs. TCMs committed to in the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Further Reasonable Progress Plan* were also reviewed, with a focus on their current implementation status. The last step was to provide a justification addressing the above-mentioned criteria for any of the TCMs that cannot be implemented in the Sacramento region.

Candidate RACM strategies were identified through a comprehensive review of implemented TCMs in California. SACOG relied on recent RACM analyses performed in the South Coast Air Basin and Ventura County for a comprehensive list of measures. Both regions have similar or higher non-attainment classifications. Appendix A Table A-1 lists SIPs reviewed as part of South Coast and Ventura processes. SACOG additionally made use of the RACM analysis completed in 2016 by Sierra Research for the 2008 standard<sup>4</sup> ; measures were reexamined in the context of their implementation status. Appendix A Table A-2 list SIPs reviewed as part of this process.

Additional measures were sought through a public outreach process. SACOG staff solicited ideas from local agencies, the public, and various partner through the Regional Planning Partnership. Appendix A Figure 1 contains this request for information.

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<sup>4</sup> Sierra Research, Reasonably Available Control Measures Analysis for the Sacramento Area Council of Governments, 2015. Available at <https://www.sacog.org/sites/main/files/file-attachments/8-racm.pdf>



#### **4. TCMS RECOMMENDED FOR RACM**

Out of nearly 200 control measures, programs and strategies identified in the course of the TCM review, only those strategies that are not currently implemented in the Sacramento region were selected for further RACM analysis.

The analysis produced only a small number of measures that are not being implemented in Sacramento. Reasoned justification was provided for not implementing a given measure based on the criteria identified in the EPA RACM guidance. The guidance indicates that measures could be rejected as not reasonably available based on local conditions. However, valid justification for rejecting a measure must be provided, which may include factors such as technological or economic infeasibility, or inability to help advance the attainment date.

Table 4-1 shows a complete listing of the measures evaluated for RACM determination, and includes current SACOG TCMs as well as additional measures identified as part of this RACM analysis, with a brief justification provided if a control measure cannot be implemented. Additional details on the reasoning for not implementing a RACM strategy are provided in the next section.

Absent no formal guidance on how to organize TCMs, measures shown in Table 4-1 are grouped into the 16 categories identified in Section 108(f)(1)(A) of the CAA.

Table 4-1 Transportation Control Measures for Consideration in Sacramento

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 1. Programs for Improved Public Transit	1.1	Regional Express Bus Program	Purchase of buses to operate regional express bus services.	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.2	Light rail and other transit access to airports	Expand rail and bus service to airports	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.3	Accelerated bus retrofit	Accelerate installation of retrofits on diesel-powered buses	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.4	Major Expansion of Mass Transit	Major change to the scope and service levels.	No	Not economically feasible because there is not enough transit demand for order of magnitude increases in spending.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.5	Expansion of public transportation services	Provide additional rail and bus service	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.6	Transit service improvement including parking management	Install park-and-ride facilities near transit stations, improve bicycle and pedestrian access, install lights and real-time information systems	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.7	Free transit during special events	Provide free alternative transportation to special events	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.8	Require that government employees use transit for home to work trips, expand transit, and encourage large businesses to promote transit use	Require all government employees to use transit a specified number of times per week.	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.9	Expand regional transit connection ticket distribution	Provides interchangeability of transit ticket.	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.10	Bus Signal Priority	Wireless bus signal priority system on bus fleets for increased operation efficiency and travel time savings.	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.11	Passenger rail improvements	Installation of additional platforms, double tracks, concrete ties, bridges, signal relocation.	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.12	Clean fuel buses	Purchase of alternative fuel buses	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.13	Intermodal Centers	Improved transit connection of various travel modes	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.14	Maglev	Construct regional low-speed magnetic levitation transit	No	Not economically feasible. High costs in lieu of relatively minor emission reductions	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.15	High Speed Rail	Construct high speed rail connecting large metropolitan centers in the state	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.16	Public transit facility improvements and operating assistance	Construct and/or improve bus and rail terminals, stations, and maintenance facilities	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.17	Paratransit Service	Self-explanatory	Yes	NA	Transit Operators

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 1. Programs for Improved Public Transit	1.18	Express Busways/Dedicated Bus Lanes	Construct bus-only lanes	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.19	Study Benefits of a Particulate Trap Retrofit Program	Examine potential to accelerate application of particulate traps on diesel-powered buses to achieve earlier compliance with State regulations.	Yes	NA	CARB/State requirement to replacing vehicles with zero emissions. Active phase out by 2029.
Section 108 (f) 1. Programs for Improved Public Transit	1.20	Provide free public transit during episodes	Provide free transit rides during high level ozone episodes.	No	Difficult to quantify benefits; being limitedly applied for Clean Air Day	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.21	Half Price Fares on Feeder Bus Service	All local transit bus services to rail stations reduce fare by half.	No	No authority to implement. Unclear emission benefits.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.22	Real-Time Transit Information Systems	Provide real-time information to transit riders to increase ridership and system efficiency	Yes	NA	Transit Operators
Section 108 (f) 1. Programs for Improved Public Transit	1.23	Shorter Distance from Buildings to Bus Stops	For existing buildings, re-route traffic to allow buses to come closer to the building. For new buildings, alter setback requirements to allow closer bus access.	No	Not economically feasible, however, some jurisdictions may already have existing requirements for new development.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.24	Vanpool program	Provide vanpool service for certain communities; purchase new vans	Yes	NA	TMA's
Section 108 (f) 1. Programs for Improved Public Transit	1.25	Consolidation of Public Transit Operators	Consolidate all public transit agencies in the County.	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.26	Transit voucher programs	Provide transit vouchers to certain population groups (e.g., elderly, minorities, homeless) to reduce transit costs	yes	NA	Transit Operators, TMA
Section 108 (f) 1. Programs for Improved Public Transit	1.27	Free rail-to-bus/bus-to-rail transfers	Vanpool and shuttle services at non-intermodal centers	No	Not economically feasible; difficult to quantify benefits	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.28	Bus queue jumps	Installing special lanes and signals to allow transit to get ahead in traffic	No	No authority to implement.	NA
Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles	2.1	Update High Occupancy Vehicle (HOV) Lane Master Plan	Analysis of increased enforcement, increasing occupancy requirements, conversion of existing HOV lanes to bus only lanes and/or designation of any new carpool lanes as bus-only lanes; utilization of freeway shoulders for peak-period express bus use; commercial vehicle buy-in to HOV lanes; and appropriateness of HOV lanes for corridors that have considered congestion pricing or value pricing.	Yes	NA	SACOG, State

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles	2.2	Bus and carpool lanes on arterials	Provide fixed lanes for buses and carpools on arterial streets.	Yes	NA	Cities and Counties
Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles	2.3	HOV lanes	Construct additional high occupancy vehicle (HOV) lanes; allow use by alternative fuel vehicles.	Yes	NA	Caltrans, State
Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles	2.4	Express toll lanes/High Occupancy Toll (HOT) Lanes	Self-explanatory.	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.1	Commute solutions	The federal Commuter Choice Program provides for benefits that employers can offer to employees to commute to work by methods other than driving alone.	Yes	NA	Employers, Transit Operators
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.2	Parking cash-out	State law requires certain employers who provide subsidized parking for their employees to offer a cash allowance in lieu of a parking space.	Yes	NA	Employer, CARB
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.3	Rideshare program	Provide rideshare service	Yes	NA	Cities, Counties, Employer
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.4	Implement Parking Charge Incentive Program	Evaluate feasibility of an incentive program for cities and employers that convert free public parking spaces to paid spaces. Review existing parking policies as they relate to new development approvals.	Yes	NA	Cities, Counties, Employer
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.5	Preferential parking for carpools and vanpools	Encourage employers to provide preferential parking for carpools and vanpools to reduce SOV trips	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.6	Employee parking fees/parking study	Study to gauge benefits from increased parking fees at employment centers	Yes	NA	Implemented through TDM Funding Program

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.7	Merchant transportation incentives	Implement "non-work" trip reduction ordinances requiring merchants to offer customers mode shift travel incentives such as free bus passes and requiring owners/managers/developers of large retail establishments to provide facilities for non-motorized modes.	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.8	Purchase vans for vanpools	Encourage employers to purchase vans for employee commute travel	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.9	Encourage regulated employers to subsidize the cost of transit for employees	Provide outreach and possible financial incentives to encourage local employers to provide transit passes or subsidies to encourage less individual vehicle travel.	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.10	Compressed work weeks/flexible work schedules	Encourage employers to implement alternate work schedules to reduce travel	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.11	Telecommuting	Encourage employers to allow employees to work from home	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.12	Income tax credit to telecommuters	Self-explanatory	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.13	Extend parking cash-out rule to more employers	Self-explanatory	No	Requires State legislation.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.14	Bike to work month	Encourage biking to work during April bike awareness month	Yes	NA	SACOG
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.15	Off-days for ozone alerts just like sick days	On ozone alert days, notify employees through email that there is an ozone alert. Employees are given a pre-specified number of days they can decide not to come in to work on ozone forecast days.	No	No authority to implement. Not economically feasible.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.16	Pay for in-house meals on ozone action days	Employer pays for meals in-house on ozone alert days so that employees do not travel to off-site locations.	No	No authority to implement.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.17	Voluntary business closures on ozone action days	A more expensive version of "off-days" for ozone alerts.	No	No authority to implement. Not economically feasible.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.18	Close government offices on ozone action days to serve as an example	Similar to voluntary business closures.	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.19	Mandatory compressed work weeks	Self-explanatory.	No	No authority to implement. Employer could decide individually if this measure is feasible for them.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.20	Adopt a Safe Routes to School Policy	Adopt policy to increase the number of students that walk/bike to school by removing barriers that prevent children and adults from doing so.	Yes	NA	Cities, Counties, School Districts, SACOG, Districts
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.21	Encourage students to bike or walk to school	Self-explanatory	Yes	NA	Implemented though Safe Routes to School
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.22	Showers and Lockers at Work	Provide showers and lockers to encourage walking and biking to work.	Yes	NA	Employers
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.23	Voluntary Employer Parking Cash-out Subsidy	Employers who provide free parking would voluntarily provide the cash equivalent of the parking subsidy to employees who do not drive to work.	Yes	NA	Cities, Counties, Employers, State
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.24	Satellite work centers	Employers open new remote offices near employees' residences	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.25	Proximity job swap	Encourage employers to give incentives to employees to move close to worksite	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.26	Promote business closure on high ozone days	Self-explanatory	No	Not economically feasible.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108(f) 4. Trip Reduction Ordinance	4.0	The state law prohibits mandatory employer-based trip reduction programs (California Health & Safety Code §40717.6). Instead, SACOG is involved in and provides funds for educational and outreach programs to educate employers of the environmental benefits of a variety of employer-based trip reduction options through the Transportation Demand Measure Funding Program.	NA	NA	NA	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.1	Intelligent Transportation Systems	Install ITS on freeways and arterials to increase traffic operations efficiency	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.2	Traffic Signal Synchronization/Traffic Signal Improvements	Install synchronized traffic signals, median dividers, turn lanes, and grade separations	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.3	Intersection Improvements	Installation of turn lanes, curbs, traffic signals	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.4	Site-specific transportation control measures	This measure could include geometric or traffic control improvements at specific congested intersections or at other substandard locations. Another example might be programming left turn signals at certain intersections to lag, rather than lead, the green time for through traffic.	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.5	Removal of on-street parking	Require all commercial/industrial development to design and implement off-street parking.	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.6	Reversible lanes	Change direction of travel during special events or during congestion periods	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.7	One-way streets	Redesignate streets as one-way to improve traffic	Yes	NA	Cities and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.8	Removal of on-street parking	Self-explanatory	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.9	Bus pullouts in curbs for passenger loading	Provide bus pullouts in curbs, or queue jumper lanes for passenger loading and unloading.	Yes	NA	Cities and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.10	Freeway Service Patrol	Emergency services to clean up motor accidents in a timely fashion	Yes	NA	STA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.11	Fewer stop signs	Improve flow-through traffic by removing stop signs.	No	Not technologically feasible because the safety issue outweighs the potential small air quality benefit.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.12	Ban left turns	Banning all left turns would stop the creation of bottlenecks although slightly increase travel distances.	No	Left turns are not allowed in some heavy-traffic streets. No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.13	Changeable lane assignments	Increase number of one-way lanes in congested flow direction during peak traffic hours.	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.14	Adaptive traffic signals and signal timing	Self-explanatory.	Yes	NA	Cities and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.15	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)	Identify key freeway bottlenecks and take accelerated action to mitigate them.	Yes	NA	Caltrans
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.16	Minimize impact of construction on traveling public. Have contractors pay when lanes are closed as an incentive to keep lanes open.	Prohibit lane closures during peak hours, limit work to weekends and/or nights.	Yes	NA	Caltrans
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.17	Internet provided road and route information	Reduce travel on highly congested roadways by providing accessible information on congestion and travel.	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.18	Regional route marking systems to encourage underutilized capacity	Encourage travel on local roads and arterials by better route marking to show alternatives.	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.19	Congestion management field team to clear incidents	Self-explanatory.	Yes	NA	Freeway Service Patrol; Emergency Services
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.20	Use dynamic message signs to direct/smooth speeds during incidents	Self-explanatory.	Yes	NA	Caltrans
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.21	Get real-time traffic information to drivers	Self-explanatory.	Yes	NA	Caltrans, 511
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.22	Speed limit reduction	Reduce freeway speed limit to 55mph	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.23	Require 40 mph speed limit on all facilities	Self-explanatory.	No	The California Vehicle Code Sections 22357 and 22358 mandates a methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	NA



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Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.24	Require lower speeds during peak periods	Self-explanatory.	No	The California Vehicle Code Sections 22357 and 22358 mandates methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.25	On-street parking restrictions	Restrict on-street parking where appropriate.	Yes	NA	Cities and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.26	Roundabouts at low traffic intersections	Construct roundabouts and remove stop sign as appropriate	Yes	NA	Cities and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.27	Eco-driving educational program	Education program to improve vehicle efficiency by improving driving habits	No	Difficult to quantify emission benefits.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.28	Reroute trucks on ozone action days	Self-explanatory.	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.29	Street Intersection Realignment	Realign skewed intersections to provide better traffic flow and safety.	Yes	NA	Cities and Counties
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.30	Road Hazard Reporting	Provide real-time traffic information to help drivers make decisions about when and where to travel.	Yes	NA	Caltrans
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.31	Truck only lanes	Construct or convert lanes for use by heavy-duty trucks only	No	No authority to implement.	NA
Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service	6.1	Park-and-ride facilities	Construct park-and-ride lots near transit centers and transfer stations	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service	6.2	Park-and-ride lots serving perimeter counties	Specific to a locality.	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service	6.3	Regional Parking Regulation to Provide Incentives for alternative transportation modes	Regulation to provide parking facilities and designs to encourage carpools, vanpools, and bicycling.	Yes	NA	Cities and Counties
Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service	6.4	Preferential parking for vanpools, carpools	Self-explanatory	Yes	NA	Employers

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Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service	6.5	Free parking near transit facilities	Self-explanatory	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service	6.6	Rail grade separation	Adjust road surface heights in line with rail to improve traffic flow	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.1	Off-peak goods movement	Require trucks to operate during off-peak hours	No	No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.2	Truck restrictions during peak periods	Implement an ordinance to restrict truck travel during peak periods in order to minimize traffic congestion.	No	No authority to implement. Cities could decide individually if this measure is feasible for them.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.3	Encourage students to bike or walk to school	Self-explanatory	Yes	Implemented though Safe Routes to School	SACOG, CARB
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.4	Adjust school hours so they do not coincide with peak traffic periods and ozone seasons	Measure to reduce travel during peak periods and ozone-contributing periods in the early morning.	No	School hours are dictated by many variables, including overcrowding and year-round schooling. This measure is not feasible.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.5	Area-wide tax for parking	Reduce driving by limiting parking through implementation of pricing measures.	No	No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.6	Increase parking fees	Reduce driving by limiting parking spaces through pricing measures.	No	No authority to implement.	NA

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Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.7	Graduate parking fees	Charge the most for parking in central business districts	Yes	NA	Cities
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.8	Purchase parking lots and convert into other land uses	Limit parking by converting available parking to other land uses to discourage driving.	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.9	Limit the number of parking spaces at airports to support mass transit	Reduce airport travel by limits on parking at airports.	No	Regulatory agencies do not have the legal authority to make local land use decisions. It is at the discretion of the regional or local airport authority to make local land use decisions pertaining to airports. Additionally, It is necessary to have significant mass transit available at airports before this measure can be implemented.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.10	No CBD vehicles unless LEV, alternative fuel, or electric	Define high-use area and ticket any vehicles present unless they are low emitting, alternative fueled or electric.	No	No authority to implement. Ex., the Legislature significantly reduced authority of the SOUTH COAST AQMD to implement indirect source control measures through revisions to the Health & Safety Code (40717.6, 40717.8, and 40717.9).	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.11	Establish Auto Free Zones and Pedestrian Malls	Self-explanatory	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.12	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes	NA	Cities and Counties

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Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.13	Land use/air quality guidelines	Guidelines for developments that contribute to achieving air quality goals.	Yes	NA	CARB, Regional Air Districts
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.14	Cash incentives to foster jobs/housing balance	Specific to locality – encouraged by California Clean Air Plan.	Yes	NA	State, SACOG GMG program
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.15	Trip reduction oriented development	Land use decisions that encourage trip reductions.	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.16	Transit-oriented/sustainable development	Encourage land-use planning that promote development near transit centers	Yes	NA	Implemented through Sustainable Communities Strategy
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.17	Sustainable development	Land use decisions that create equitable standards of living to satisfy the basic needs of all peoples, all while taking the steps to avoid further environmental degradation.	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.18	Smart Parking Detection System	Utilize mobile communication devices to access the parking availability at multiple lots and provide real- time inventory of parking spaces.	Yes	NA	Cities
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.19	Programs to encourage goods movement by rail	Self-explanatory	Yes	NA	State
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.20	Divert trucks from nonattainment areas	Require pass-through trucks to choose routes away from Sacramento region	No	No authority to implement.	NA

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Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.21	Buy parking lots and convert to other land use	Limit parking by converting available parking to other land uses to discourage driving	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.22	Incentives for cities with good development practices	Provide financial or other incentives to cities that practice air quality- sensitive development.	Yes	NA	CARB, SACOG, State Legislature
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.23	Increase fees for parking garages and meters during ozone episodes	Increase fees for parking garages to deter vehicle use during high ozone level days.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.24	Charge city-owned parking garage pass holders a fee for more than one entrance and exit each day	Extra charges for pass holders to deter additional vehicle use and vehicle trips.	No	Not economically feasible. No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.25	VMT Tax	Charge VMT tax per mile for all vehicles registered or garaged in the region.	No	Need state legislation.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.26	Increase parking fees	Self-explanatory	Yes	NA	Cities and Counties
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.27	Central business district vehicle restrictions	Restrict vehicle use in downtown areas	No	No authority to implement. Downtown Sacramento is surrounded by freeways, difficult to quantify, not economically feasible.	NA
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.1	Financial Incentives, including Zero-Bus Fares	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.	Yes	NA	Employers

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Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.2	Rideshare information systems and marketing	Self-explanatory	Yes	NA	SACOG and TMAs
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.3	Cash incentives for carpoolers	Self-explanatory	Yes	NA	TMAs
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.4	Employers provide vehicles to carpoolers for running errands or emergencies	Having vehicles available for workday errands makes it easier to go to work without one.	Yes	NA	SACOG TDM program and some employers
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.5	Subscription services	Free van services to provide transportation for the elderly, handicapped or other individuals who have no access to transportation.	Yes	NA	TMAs
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.6	School carpools	Self-explanatory and voluntary.	No	No authority to implement.	NA
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.7	"Guaranteed Ride Home" program	Provide vanpool service in emergency situations to transit riders	Yes	NA	TMAs
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.8	Transit voucher program	Provide transit vouchers to certain population groups (elderly, minorities, homeless) to reduce transit costs.	Yes	NA	Transit Operators
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.9	Rideshare and vanpool services	Non-employer based rideshare and vanpool option near transit stations.	Yes	NA	SACOG
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.10	Preferential parking for carpools and vanpools	Encourage employers to provide preferential parking for carpools and vanpools to reduce SOV trips	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.11	Auto sharing Program	Fund incentives for new auto sharing customers (i.e., Zipcar, etc).	Yes	NA	CARB, Regional Air Districts
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.12	Vanpool program	Provide vanpool service for certain communities; purchase new vans	Yes	NA	CARB, Regional Air Districts
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.13	Station cars	Provide vanpool service from transit stations to parking lots	Yes	NA	Cities and Counties

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Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.1	Establish Auto Free Zones and Pedestrian Malls	Self-explanatory	Yes	NA	Cities and Counties
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.2	Encouragement of pedestrian travel	This measure involves encouraging the use of pedestrian travel as an alternative to automobile travel. Pedestrian travel is quite feasible for short shopping, business, or school trips.	Yes	NA	SACOG TDM program
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.3	Bicycle/Pedestrian Program	Fund high priority projects in countywide plans consistent with funding availability.	Yes	NA	SACOG ATP and Statewide program
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.4	Close streets for special events for use by bikes and pedestrians when/where appropriate	Self-explanatory	Yes	NA	Cities and Counties
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.5	Encourage bicycle travel	Promotion of bicycle travel to reduce automobile use and improve air quality. Bikeway system planning, routes for inter-city bike trips to help bicyclists avoid other, less safe facilities. Another area for potential actions is the development and distribution of educational materials, regarding bicycle use and safety.	Yes	NA	SACOG, Cities, Counties, TMAs
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.6	Free bikes	Provide free bikes to transit users	No	Not economically feasible. Unclear emission benefits.	NA

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Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.7	Cash rebates for bikes	Provide financial incentives to purchase bicycles and thereby encourage use.	No	No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.8	Close streets for special events for bikes and pedestrians	Self-explanatory.	Yes	NA	Cities and Counties
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.9	Use condemned dirt roads for bike trails	Self-explanatory.	No	Not applicable because there are no condemned dirt roads in the region.	NA
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.10	Safe Routes to School programs	Encourage educational and encouragement programs with families and schools and support policies to improve pedestrian and bicycle safety.	Yes	NA	Cities and Counties
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.11	Bicycle/pedestrian overpasses	Construct bike and pedestrian bridges and/or tunnels over major highways	Yes	NA	Caltrans, Cities, and Counties
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.12	Bicycle/pedestrian facilities	Construct sidewalks, curbs, gutters, landscaping, lighting for bike and pedestrian pathways	Yes	NA	Cities and Counties
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.13	Close roads for use of non-motorized traffic	Convert roadways to bike/pedestrian paths	No	No authority to implement. Unclear emission benefits.	NA



Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.1	Mandatory bike racks for worksites	Mandate that employers install bike racks at businesses	No	No authority to implement.	NA
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.2	Bike racks on buses	South Coast, San Joaquin Valley, Washington DC	Yes	NA	Transit Operators
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.3	Regional bike parking	Construct bike parking facilities at transit centers	Yes	NA	Cities, Counties, Transit Operators
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.4	Bicycle facility improvements	Construct bike lanes, off-street bikeways, multi-use trails, route lighting, and street signage	Yes	NA	Cities and Counties
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.5	Expedite bicycle projects from RTP/SCS	Build out active mode facilities at an accelerated rate to achieve benefits in advance of attainment deadline.	Yes	NA	SACOG, Cities, Counties, Special Districts
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.6	Provide bike/pedestrian facilities safety patrols	Self-explanatory.	No	Will not advance attainment. Emission benefits would be difficult to calculate/provide minimal emission reductions.	NA
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.7	Inclusion of bicycle lanes on thoroughfare projects	Self-explanatory.	Yes	NA	Cities and Counties

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Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.8	Bicycle lanes on arterial and frontage roads	Self-explanatory.	Yes	NA	Cities and Counties
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.9	Bicycle route lighting	Self-explanatory.	Yes	NA	Cities and Counties
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.10	Complete Streets	Install bicycle and pedestrian facilities, upgrade traffic control systems, urban design improvements, street lights and transit connections.	Yes	NA	Cities, Counties, SACOG
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.11	Bike share program	Implement bike share system and provide planning efforts for potential regional expansion of a Bike Share pilot program	Yes	NA	Cities, Counties, SACOG
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.12	Bike Purchase Incentives	Cash incentives to transit riders to purchase collapsible or electric bikes.	No	No authority to implement.	NA
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.13	Longer Bike Racks on Buses	Install or modify bike rack on transit buses to accommodate up to three bikes	Yes	NA	Transit Operators
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.14	Greenway Network	Use riverbeds and other rights-of-way for bike and pedestrian paths to separate them from auto traffic	Yes	NA	Cities and Counties

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Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.15	First Mile/Last Mile Program	Variety of strategies to encourage active transportation including wayfinding, sidewalk improvements, pedestrian priority signalization, and bike/pedestrian facilities near transit.	Yes	NA	SACOG
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.16	Bike lockers at light rail stations, park & ride lots, other locations	Expand existing bike lockers at light rail stations; install bicycle storage spaces in parking lots.	Yes	NA	Cities, counties, Transit Operators
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.1	Limit excessive car dealership vehicle starts	Require car dealers to limit the starting of vehicles for sale on their lot(s) to once every two weeks. Presently, a number of new and used car dealers start their vehicles daily to avoid battery failure and assure smooth start-ups for customer test drives.	No	Not enforceable or practical	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.2	Encourage limitations on vehicle idling	Encourage limitations to limit extended idling operations.	Yes	NA	State
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.3	Turn off engines while stalled in traffic	Public outreach or police-enforced program.	No	This measure raises safety and congestion concerns. No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.4	Outlaw idling in parking lots	Self-explanatory and police-enforced program.	No	Enforcement of idle restrictions is a low priority for police relative to their other missions. The cost effectiveness of this measure has not been demonstrated. It is not economically feasible. No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.5	Reduce idling at drive-throughs; ban drive-throughs	Mandate no idling or do not allow drive-through windows during ozone season.	No	No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.6	Promote use of pony engines	Use special battery engines to keep air conditioning and other truck systems working while truck not in use.	Yes	NA	State
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.7	Idle restrictions at airport curbsides	Self-explanatory and police-enforced.	Yes	NA	Airport authorities

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Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.8	Truck stop electrification	Self-explanatory	Yes	NA	Businesses
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.9	Idle reduction	Prohibit idling at schools	Yes	NA	CARB
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.10	Restrict idling	Require idle limits for trucks.	Yes	NA	Cities and Counties
Section 108 (f) 12. Program to Reduce Motor Vehicle Emissions Consistent with Title II, Which Are Caused by Extreme Cold Start Conditions	12.0	Not Applicable	NA	NA	NA	NA
Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules	13.1	Compressed work weeks/flexible work schedules	Encourage employers to implement alternate work schedules to reduce travel	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules	13.2	Modifications of work schedules	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.	Yes	NA	Employers
Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules	13.3	Telecommunications-Telecommuting/Teleconferencing	Encourage telecommuting and use of telecommuting/teleconferencing equipment in place of motor vehicle use where appropriate. Set-up satellite work centers closer to where employees live to reduce motor vehicle use where appropriate.	Yes	NA	Employers
Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules	13.4	Telecommuting	Encourage employers to allow employees to work from home	Yes	NA	Implemented through TDM Funding Program
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.1	Spare the air program	Voluntary no-drive days during high ozone season	Yes	NA	SMAQMD and Regional Air Districts

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.2	Special event controls	This measure would 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.	Yes	NA	Counties, Cities, Special Event Operators
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.3	Blueprint vision	Implementation and technical assistance with programs to encourage land-use patterns and development near transit centers that decrease urban sprawl and reduce overall travel	Yes; implemented through Su	NA	SACOG
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.4	Spare the air program	Voluntary no-drive days during high ozone season	Yes	NA	SMAQMD and Regional Air Districts
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.5	New Development Air Quality Impact Evaluation	Evaluate air quality impacts of new development and recommend or require mitigation for significant adverse impacts.	Yes	NA	Cities, County, SMAQMD
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.6	Transportation for Livable Communities (TLC)/Housing Incentive program	Program provides planning grants, technical assistance, and capital grants to help cities and Nonprofit agencies define and implement transportation projects that support community plans including increased housing near transit.	Yes	NA	SACOG, State

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.7	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes	NA	Cities and Counties
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.8	Incentives for cities with good development practices	Provide financial or other incentives to local cities that practice air quality-sensitive development.	Yes	NA	Cities, Counties, SACOG, State
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.9	Increase State gas tax	Self-explanatory.	No	Need state legislation. State gas tax has been increased by SB 1.	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.10	Pay-As-You-Drive Insurance	Charge insurance fees based on driving patterns	No	No implementation authority; would require changes to state law	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.11	Spare the air program	Voluntary no-drive days during high ozone season	Yes	NA	SMAQMD and Regional Air Districts

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.12	Display air quality data on billboards	Self-explanatory.	Yes	NA	SMAQMD Spare the Air Program
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.13	Sell clean air license plate to fund air quality programs	Self-explanatory.	No	Need state legislation. No clear demonstration of air quality benefits.	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.14	Government Action Days (spare the air day, ozone action day)	Declare a Spare The Air day when ozone levels reach episodic thresholds so that the public is informed and encouraged to scale back activities generating pollutants.	Yes	NA	SMAQMD and Regional Air Districts
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.15	Vehicle tax for two or more vehicles per household	Initiate legislation to put a vehicle tax on household with two or more vehicles.	No	Need state legislation. No clear demonstration of air quality benefits. Not economically feasible.	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.16	Development of rural-urban connections strategy and create best practices toolkit	Develop best practices to promote environmentally sustainable land use in economically viable rural areas for land owners and local governments	Yes	NA	SACOG

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.17	Traffic reduction strategies	Public awareness and education programs to encourage carpooling and the use of public transportation	Yes	NA	SACOG and TMAs
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.18	Buy parking lots and convert to land use	Self-explanatory	Yes	NA	Cities and Counties
Section 108 (f) 15. Programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other Non-motorized means of transportation when commercially feasible and in the public interest	15.1	Require inclusion of paved shoulders adequate for bicycle use on state or federally funded reconstruction or widening of federal collectors	Require paved shoulders on state and federally funded roads that require reconstruction or widening.	No	No authority to implement. Not economically feasible.	NA
Section 108 (f) 15. Programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other Non-motorized means of transportation when commercially feasible and in the public interest	15.2	Bicycle/pedestrian facilities	Construct sidewalks, curbs, gutters, landscaping, lighting for bike and pedestrian pathways	Yes	NA	Cities and Counties
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.1	Counties assess ten dollar license plate fee to fund repair/replacement program for high- emitters	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.2	Offer incentives for retirement and replacement of vehicles for participants meeting specific requirements	Self-explanatory.	Yes	NA	State



Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.3	Demolish impounded vehicles that are high emitters	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.4	Do whatever is necessary to allow cities to remove the engines of high emitting vehicles (pre-1980) that are abandoned and to be auctioned	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.5	Accelerated retirement program	Identify high-emitting vehicle age groups and develop a program to remove them from use.	Yes	Not enforceable or economically feasible.	State
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.6	Buy vehicles older than 1975	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.7	Accelerate retirements of trucks/buses	Replace high mileage trucks and buses	Yes	NA	CARB, Regional Air Districts
17. Other	17.1	Truck-Only Lanes	Self-explanatory.	Yes	NA	Caltrans
17. Other	17.2	Promote business closures on high ozone days	Non-employer-based strategy to require local business to close on bad air quality days, thereby reducing travel.	No	No authority to implement; not economically feasible	NA
17. Other	17.3	Clean Fleet Vehicles for Government Employees	Provide alternative fuel vehicles for government employees.	Yes	NA	CARB, Regional Air Districts
17. Other	17.4	Increase bike commuting and transit use to reduce congestion and the number of SOVs	Utilize a form of secure bike parking at park and ride lots within El Dorado County.	NA	NA	See Measure 10.16
17. Other	17.5	US Highway 50 Corridor At-Grade Temporary Freeway Conversion: "Trip to Green" Interim Technology and Infrastructure Project	Use innovation and technology to solve interregional recreation and tourism related congestion on US 50.	NA	NA	See Measure 5.1

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
17. Other	17.6	Placerville Drive Bicycle and Pedestrian Facilities Project	Construct Class IV bikeways and sidewalks along Placerville Drive from west of the US 50 undercrossing to the Placerville Drive / Green Valley Road / Ray Lawyer Drive / intersection and Class II bicycle facilities and sidewalks on Green Valley Road from Placerville Drive to Mallard Lane.	NA	NA	See Measure 10.5
17. Other	17.7	Encouraging Work From Home and electric vehicles for the Sacramento Region.	Self-explanatory	NA	NA	See Measure 3.11,
17. Other	17.8	Encouraging electric vehicles for the Sacramento Region	Self-explanatory	Yes	NA	CARB

## **5. RACM EVALUATION**

A small number of control measures identified during of the TCM review, which were not yet implemented in the Sacramento region. These control measures were advanced for further RACM analysis and assessed based on the criteria specified in the 2015 Ozone Implementation Rule and EPA's RACM guidance. Factors considered included technical and economic feasibility, enforceability, local applicability, and ability to provide emission reductions before attainment deadline (advancement of attainment). Table 5-1 is a collective list of measures reviewed, including reasoned justification for not implementing them in the Sacramento region at this time based upon reasoning describe in sections 5.1, 5.2, and 5.3 below.

### **5.1 Feasibility-Technical/Economic**

Several of TCMs listed below, although technologically feasible, were disqualified based on their high costs in lieu of the relatively minor emission reductions they would produce.

As an example, measures that offer transportation equipment were viewed as not cost-effective. For instance, a "free bikes" TCM is not deemed economically feasible because such a program would need to be extended to a large population group to provide significant emission benefits thereby resulting in high costs. In addition, enforcement and quantification of emission benefits would not be possible given that bikes could be resold for profit, stolen, or not used by the public. Table 5-1 shows measures that were deemed economically infeasible and provides a detailed explanation of why they could not be implemented in the Sacramento region.

### **5.2 Implementation Authority**

Some measures discussed in this section were not considered to be RACM because SACOG and its jurisdictions do not have the implementation authority needed to deploy and enforce them. A new TCM must have evidence of adequate personnel, and funding and authority under state or local law to implement, monitor and enforce. In some cases, implementation would require changes to state law. If a transportation agency, like SACOG, does not have the authority to implement and enforce a TCM, it cannot be credited in a SIP, and therefore cannot be considered as RACM. Table 5-1 shows measures that can not be implemented at this time.

### 5.3 Advancement of Attainment

Several of the TCMs shown below were viewed as not capable of advancing attainment due to the small emission benefits, they would generate. Measures with emission reductions that would be difficult or impossible to quantify were also included in this grouping. As considered within this analysis, TCMs must be fully funded and in use/implemented in advance of the attainment demonstration year; and not included within other transportation emission assumptions accounted for within the MTP. Only emission reductions generated between measure implementation and the 1-year advancement threshold can be credited within the SIP. Additionally, their inclusion as RACM is dependent on the findings of the regional air districts who collectively, review control measures for point source, non-point source, and non-mobile sources. A RACM finding of advancing attainment by a year will be determined by the Districts.

Table 5-1 RACM: Economic Feasibility, Advancement of Attainment, Implementation Authority

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 1. Programs for Improved Public Transit	1.4	Major Expansion of Mass Transit	Major change to the scope and service levels.	No	Not economically feasible because there is not enough transit demand for order of magnitude increases in spending.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.8	Require that government employees use transit for home to work trips, expand transit, and encourage large businesses to promote transit use	Require all government employees to use transit a specified number of times per week.	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.10	Bus Signal Priority	Wireless bus signal priority system on bus fleets for increased operation efficiency and travel time savings.	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.14	Maglev	Construct regional low-speed magnetic levitation transit	No	Not economically feasible. High costs in lieu of relatively minor emission reductions	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.15	High Speed Rail	Construct high speed rail connecting large metropolitan centers in the state	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.18	Express Busways/Dedicated Bus Lanes	Construct bus-only lanes	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.20	Provide free public transit during episodes	Provide free transit rides during high level ozone episodes.	No	Difficult to quantify benefits; being limitedly applied for Clean Air Day	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.21	Half Price Fares on Feeder Bus Service	All local transit bus services to rail stations reduce fare by half.	No	No authority to implement. Unclear emission benefits.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.23	Shorter Distance from Buildings to Bus Stops	For existing buildings, re-route traffic to allow buses to come closer to the building. For new buildings, alter setback requirements to allow closer bus access.	No	Not economically feasible, however, some jurisdictions may already have existing requirements for new development.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.25	Consolidation of Public Transit Operators	Consolidate all public transit agencies in the County.	No	No authority to implement.	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.27	Free rail-to-bus/bus-to-rail transfers	Vanpool and shuttle services at non-intermodal centers	No	Not economically feasible; difficult to quantify benefits	NA
Section 108 (f) 1. Programs for Improved Public Transit	1.28	Bus queue jumps	Installing special lanes and signals to allow transit to get ahead in traffic	No	No authority to implement.	NA
Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles	2.4	Express toll lanes/High Occupancy Toll (HOT) Lanes	Self-explanatory.	No	No authority to implement.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.7	Merchant transportation incentives	Implement "non-work" trip reduction ordinances requiring merchants to offer customers mode shift travel incentives such as free bus passes and requiring owners/managers/developers of large retail establishments to provide facilities for non-motorized modes.	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.12	Income tax credit to telecommuters	Self-explanatory	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.13	Extend parking cash-out rule to more employers	Self-explanatory	No	Requires State legislation.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.15	Off-days for ozone alerts just like sick days	On ozone alert days, notify employees through email that there is an ozone alert. Employees are given a pre-specified number of days they can decide not to come in to work on ozone forecast days.	No	No authority to implement. Not economically feasible.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.16	Pay for in-house meals on ozone action days	Employer pays for meals in-house on ozone alert days so that employees do not travel to off-site locations.	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.17	Voluntary business closures on ozone action days	A more expensive version of "off-days" for ozone alerts.	No	No authority to implement. Not economically feasible.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.18	Close government offices on ozone action days to serve as an example	Similar to voluntary business closures.	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.19	Mandatory compressed work weeks	Self-explanatory.	No	No authority to implement. Employer could decide individually if this measure is feasible for them.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.24	Satellite work centers	Employers open new remote offices near employees' residences	No	No authority to implement.	NA
Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives	3.26	Promote business closure on high ozone days	Self-explanatory	No	Not economically feasible.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.5	Removal of on-street parking	Require all commercial/industrial development to design and implement off-street parking.	No	No authority to implement.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.6	Reversible lanes	Change direction of travel during special events or during congestion periods	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.8	Removal of on-street parking	Self-explanatory	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.11	Fewer stop signs	Improve flow-through traffic by removing stop signs.	No	Not technologically feasible because the safety issue outweighs the potential small air quality benefit.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.12	Ban left turns	Banning all left turns would stop the creation of bottlenecks although slightly increase travel distances.	No	Left turns are not allowed in some heavy-traffic streets. No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.13	Changeable lane assignments	Increase number of one-way lanes in congested flow direction during peak traffic hours.	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.22	Speed limit reduction	Reduce freeway speed limit to 55mph	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.23	Require 40 mph speed limit on all facilities	Self-explanatory.	No	The California Vehicle Code Sections 22357 and 22358 mandates a methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.24	Require lower speeds during peak periods	Self-explanatory.	No	The California Vehicle Code Sections 22357 and 22358 mandates methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.27	Eco-driving educational program	Education program to improve vehicle efficiency by improving driving habits	No	Difficult to quantify emission benefits.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.28	Reroute trucks on ozone action days	Self-explanatory.	No	No authority to implement.	NA
Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions	5.31	Truck only lanes	Construct or convert lanes for use by heavy-duty trucks only	No	No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.1	Off-peak goods movement	Require trucks to operate during off-peak hours	No	No authority to implement.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.2	Truck restrictions during peak periods	Implement an ordinance to restrict truck travel during peak periods in order to minimize traffic congestion.	No	No authority to implement. Cities could decide individually if this measure is feasible for them.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.4	Adjust school hours so they do not coincide with peak traffic periods and ozone seasons	Measure to reduce travel during peak periods and ozone-contributing periods in the early morning.	No	School hours are dictated by many variables, including overcrowding and year-round schooling. This measure is not feasible.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.5	Area-wide tax for parking	Reduce driving by limiting parking through implementation of pricing measures.	No	No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.6	Increase parking fees	Reduce driving by limiting parking spaces through pricing measures.	No	No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.9	Limit the number of parking spaces at airports to support mass transit	Reduce airport travel by limits on parking at airports.	No	Regulatory agencies do not have the legal authority to make local land use decisions. It is at the discretion of the regional or local airport authority to make local land use decisions pertaining to airports. Additionally, It is necessary to have significant mass transit available at airports before this measure can be implemented.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.10	No CBD vehicles unless LEV, alternative fuel, or electric	Define high-use area and ticket any vehicles present unless they are low emitting, alternative fueled or electric.	No	No authority to implement. Ex., the Legislature significantly reduced authority of the SOUTH COAST AQMD to implement indirect source control measures through revisions to the Health & Safety Code (40717.6, 40717.8, and 40717.9).	NA



Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.20	Divert trucks from nonattainment areas	Require pass-through trucks to choose routes away from Sacramento region	No	No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.23	Increase fees for parking garages and meters during ozone episodes	Increase fees for parking garages to deter vehicle use during high ozone level days.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.24	Charge city-owned parking garage pass holders a fee for more than one entrance and exit each day	Extra charges for pass holders to deter additional vehicle use and vehicle trips.	No	Not economically feasible. No authority to implement.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.25	VMT Tax	Charge VMT tax per mile for all vehicles registered or garaged in the region.	No	Need state legislation.	NA
Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use	7.27	Central business district vehicle restrictions	Restrict vehicle use in downtown areas	No	No authority to implement. Downtown Sacramento is surrounded by freeways, difficult to quantify, not economically feasible.	NA
Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services	8.6	School carpools	Self-explanatory and voluntary.	No	No authority to implement.	NA
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.6	Free bikes	Provide free bikes to transit users	No	Not economically feasible. Unclear emission benefits.	NA
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.7	Cash rebates for bikes	Provide financial incentives to purchase bicycles and thereby encourage use.	No	No clear demonstration of emission reduction benefits.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.9	Use condemned dirt roads for bike trails	Self-explanatory.	No	Not applicable because there are no condemned dirt roads in the region.	NA
Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place	9.13	Close roads for use of non-motorized traffic	Convert roadways to bike/pedestrian paths	No	No authority to implement. Unclear emission benefits.	NA
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.1	Mandatory bike racks for worksites	Mandate that employers install bike racks at businesses	No	No authority to implement.	NA
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.6	Provide bike/pedestrian facilities safety patrols	Self-explanatory.	No	Will not advance attainment. Emission benefits would be difficult to calculate/provide minimal emission reductions.	NA
Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas	10.12	Bike Purchase Incentives	Cash incentives to transit riders to purchase collapsible or electric bikes.	No	No authority to implement.	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.1	Limit excessive car dealership vehicle starts	Require car dealers to limit the starting of vehicles for sale on their lot(s) to once every two weeks. Presently, a number of new and used car dealers start their vehicles daily to avoid battery failure and assure smooth start-ups for customer test drives.	No	Not enforceable or practical	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.3	Turn off engines while stalled in traffic	Public outreach or police-enforced program.	No	This measure raises safety and congestion concerns. No clear demonstration of emission reduction benefits.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.4	Outlaw idling in parking lots	Self-explanatory and police-enforced program.	No	Enforcement of idle restrictions is a low priority for police relative to their other missions. The cost effectiveness of this measure has not been demonstrated. It is not economically feasible. No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 11. Programs to Control Extended Idling of Vehicles	11.5	Reduce idling at drive-throughs; ban drive-throughs	Mandate no idling or do not allow drive-through windows during ozone season.	No	No clear demonstration of emission reduction benefits.	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.9	Increase State gas tax	Self-explanatory.	No	Need state legislation. State gas tax has been increased by SB 1.	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.10	Pay-As-You-Drive Insurance	Charge insurance fees based on driving patters	No	No implementation authority; would require changes to state law	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.13	Sell clean air license plate to fund air quality programs	Self-explanatory.	No	Need state legislation. No clear demonstration of air quality benefits.	NA
Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts	14.15	Vehicle tax for two or more vehicles per household	Initiate legislation to put a vehicle tax on household with two or more vehicles.	No	Need state legislation. No clear demonstration of air quality benefits. Not economically feasible.	NA

Code Category	Measure No.	Measure Title	Description	Has it been implemented or	Reasoned Justification for Infeasible Measure	Implementing Agency or Agencies
Section 108 (f) 15. Programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other Non-motorized means of transportation when commercially feasible and in the public interest	15.1	Require inclusion of paved shoulders adequate for bicycle use on state or federally funded reconstruction or widening of federal collectors	Require paved shoulders on state and federally funded roads that require reconstruction or widening.	No	No authority to implement. Not economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.1	Counties assess ten dollar license plate fee to fund repair/replacement program for high- emitters	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.3	Demolish impounded vehicles that are high emitters	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.4	Do whatever is necessary to allow cities to remove the engines of high emitting vehicles (pre-1980) that are abandoned and to be auctioned	Self-explanatory.	No	Not enforceable or economically feasible.	NA
Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks	16.6	Buy vehicles older than 1975	Self-explanatory.	No	Not enforceable or economically feasible.	NA
17. Other	17.2	Promote business closures on high ozone days	Non-employer-based strategy to require local business to close on bad air quality days, thereby reducing travel.	No	No authority to implement; not economically feasible	NA

## **6. CONCLUSION**

Out of the approximately 200 candidate TCMs identified as candidate RACM, none were found to meet the criteria for RACM implementation. Based on a comprehensive review of TCM projects in other nonattainment areas, it was determined that the TCMs being implemented in the Sacramento region represent all RACM. None of the candidate measures reviewed herein, and determined to be infeasible, meet the criteria for RACM implementation.

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## Appendix A

<b>Table A-1</b> <b>Non-Attainment Area SIPs Reviewed in</b> <b>the South Coast 2021/2022 RACM</b> <b>Process*</b>		
<b>Region</b>	<b>Designation</b>	<b>Applicable SIP</b>
Chicago-Naperville, Illinois-Indiana-Wisconsin	Serious	Draft Redesignation Request and Maintenance Plan for the Illinois Portion of the Chicago Ozone Nonattainment Area for the 2008 Ozone Standard
Coachella Valley, California	Severe 15	Final 2016 Air Quality Management Plan
Dallas-Fort Worth, Texas	Serious	Dallas-Fort Worth Serious Classification Attainment Demonstration State Implementation Plan Revision for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard
Denver-Boulder-Greeley-Ft, Colorado	Serious	Serious State Implementation Plan for the Denver Metro and North Front Range Ozone Nonattainment Area, December 18, 2020
Eastern Kern, California	Severe 15	2017 Ozone Attainment Plan For 2008 Federal 75 ppb 8-Hour Ozone Standard
Houston-Galveston-Brazoria, Texas	Serious	Houston-Galveston-Brazoria Serious Classification Attainment Demonstration State Implementation Plan Revision for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard
New York-Northern New Jersey- Long Island, Connecticut	Serious	Revision to Connecticut's State Implementation Plan Ozone Attainment Demonstration for Areas Classified Serious Nonattainment for the 2008 Ozone Standards, October 2021  8-Hour Ozone Attainment Demonstration for the Connecticut Portion of the New York-Northern New Jersey-Long Island (NY-NJ-CT) Nonattainment Area Technical Support Document
New York-Northern New Jersey- Long Island, New York	Serious	New York State Implementation Plan for the 2008 Ozone National Ambient Air Quality Standards – New York-N. New Jersey-Long Island, NY-NU-CT Serious Nonattainment Areas, 2021
San Diego, California	Severe 15	2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County

San Joaquin Valley, California	Extreme	2016 Ozone Plan for 2008 8-Hour Ozone Standard
Ventura, California	Serious	Final 2016 Ventura County Air Quality Management Plan; *Additional review by SACOG staff 8/15/22 <a href="http://www.vcapcd.org/pubs/Planning/2022-RASM-List-for-Appendix-F-AQMP-B.pdf">http://www.vcapcd.org/pubs/Planning/2022-RASM-List-for-Appendix-F-AQMP-B.pdf</a>
Western Mojave	Severe 15	MDAQMD Federal 75 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)
Western Nevada County, California	Serious	Ozone Attainment Plan, Western Nevada County, State Implementation Plan for the 2008 Primary Federal 8-Hour Ozone Standard of .075 ppm, 2018
*SCAG's Regional Transportation Strategy and Control Measures, 2022. Table VI-C-4 8-Hour Ozone Standard Nonattainment Areas Review for RACM. Available at <a href="http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/combine-appendix-iv-c.pdf?sfvrsn=8">http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/combine-appendix-iv-c.pdf?sfvrsn=8</a>		

**Table A-2**  
**1997 8-Hour Ozone Standard Nonattainment Areas Reviewed in the**  
**SACOG 2016 RACM Process\***

Region	Designation	Applicable SIP
South Coast, CA (including Riverside and W. Mojave Desert)	Severe/ Extreme	Air Quality Management Plan, South Coast Air Quality Management District, 2012
San Joaquin Valley, CA	Extreme	San Joaquin Valley 2007 Ozone Plan
Ventura, CA	Serious	Ventura County Air Quality Management Plan, 2007
Washington DC	Moderate	State Implementation Plan for 8-Hour Ozone Standard for the Washington DC-DV-MA Nonattainment Area, 2007
Baltimore, MD	Serious	Baltimore Serious Nonattainment Area 0.08 ppm 8- Hour Ozone Implementation Plan, 2013
Maricopa, Arizona	Moderate	MAG Eight-Hour Ozone Resignation Request and Maintenance Plan for the Maricopa Nonattainment Area, February, 2009
Denver-Boulder, Colorado	Marginal	Denver Metro Area & North Front Range Ozone Action Plan Including Revisions to the State Implementation Plan, 2008

Boston-Manchester, NH	Moderate	Revision to the New Hampshire State Implementation Plan Request for Redesignation of the Boston- Manchester- Portsmouth (SE), NH 8-Hour Ozone (1997 Standard) Nonattainment Area, 2012
Philadelphia- Wilmington, PA	Moderate	State Implementation Plan Revision: Attainment Demonstration and Base Year Inventory Bucks, Chester, Delaware, Montgomery and Philadelphia Counties located in the Philadelphia-Wilmington-Atlantic City, PA-NJ-DE Eight-Hour Ozone Nonattainment Area, 2007
Houston-Galveston, TX	Severe	Houston-Galveston-Brazoria Reasonable Further Progress State Implementation Plan Revision for the 1997 Eight-Hour Ozone Standard, 2010
Dallas-Fort Worth, TX	Serious	Dallas-Fort Worth 1997 Eight-Hour Ozone Standard Nonattainment Area Plan, 2011
New York-New Jersey, NY	Moderate	New Jersey Department of Environmental Protection State Implementation Plan (SIP) Revision for the Attainment and Maintenance of Ozone NAAQS, 2007
*Sierra Research, Reasonably Available Control Measures Analysis for the Sacramento Area Council of Governments, 2015. Available at <a href="https://www.sacog.org/sites/main/files/file-attachments/8-racm.pdf">https://www.sacog.org/sites/main/files/file-attachments/8-racm.pdf</a>		