

SOUTHERN CALIFORNIA



**ASSOCIATION OF  
GOVERNMENTS**

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Transportation Commission

## MEETING OF THE

# ENERGY AND ENVIRONMENT COMMITTEE

***Thursday, January 3, 2013  
10:00 a.m. – 12:00 p.m.***

**SCAG Main Office  
818 W. 7<sup>th</sup> Street, 12<sup>th</sup> Floor  
Policy Committee Room A  
Los Angeles, CA 90017  
(213) 236-1800**

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Lillian Harris-Neal at (213) 236-1858 or via email [harris-neal@scag.ca.gov](mailto:harris-neal@scag.ca.gov)

Agendas & Minutes for the Energy and Environment Committee are also available at: [www.scag.ca.gov/committees/eec.htm](http://www.scag.ca.gov/committees/eec.htm)

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## Energy and Environment Committee

*Members Roster – January 2013*

**Members**

**Representing**

<b>Chair*</b>	<b>1. Hon. Cheryl Viegas-Walker</b>	<b>El Centro</b>	<b>District 1</b>
<b>Vice-Chair*</b>	<b>2. Hon. James Johnson</b>	<b>Long Beach</b>	<b>District 30</b>
	* 3. Hon. Sylvia Ballin	San Fernando	District 67
	* 4. Hon. Lisa Bartlett	Dana Point	TCA
	5. Hon. Denis Bertone	San Dimas	SGVCOG
	6. Hon. Brian Brennan	Ventura	VCOG
	* 7. Hon. Margaret Clark	Rosemead	District 32
	8. Hon. Jeff Duclos	Hermosa Beach	SBCCOG
	9. Hon. Jordan Ehrenkranz	Canyon Lake	WRCOG
	* 10. Hon. Mitchell Englander	Los Angeles	District 59
	11. Hon. Larry Forester	Signal Hill	Gateway Cities
	* 12. Hon. Ed Graham	Chino Hills	District 10
	* 13. Hon. Keith Hanks	Azusa	District 33
	14. Hon. Rafi Manoukian	Glendale	SFVCOG
	15. Hon. Thomas Martin	Maywood	Gateway Cities
	* 16. Hon. Judy Mitchell	Rolling Hills Estates	District 40
	17. Hon. David Pollock	Moorpark	VCOG
	18. Hon. Sam Pedroza	Claremont	SGVCOG
	19. Hon. Jeffrey Prang	West Hollywood	WSCCOG
	* 20. Hon. Lupe Ramos Watson	Indio	District 66
	21. Hon. Edward Scott	Rialto	SANBAG
	* 22. Hon. Jack Terrazas		Imperial County
	23. Hon. Mark Waldman	La Palma	OCCOG
	25. Hon. Diane Williams	Rancho Cucamonga	SANBAG
	26. Hon. Edward Wilson	Signal Hill	Gateway Cities
	* 27. Hon. Dennis Zine	Los Angeles	District 50

\* Regional Council Member

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# ENERGY & ENVIRONMENT COMMITTEE

## AGENDA

### JANUARY 3, 2013

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*The Energy & Environment Committee may consider and act upon any of the items listed on the agenda regardless of whether they are listed as Information or Action Items.*

#### **CALL TO ORDER & PLEDGE OF ALLEGIANCE**

*(Hon. Cheryl Viegas-Walker, Chair)*

**PUBLIC COMMENT PERIOD** – Members of the public desiring to speak on items on the agenda, or items not on the agenda, but within the purview of the Committee, must fill out and present a speaker’s card to the Assistant prior to speaking. Comments will be limited to three (3) minutes. The Chair may limit the total time for all comments to twenty (20) minutes.

#### **REVIEW AND PRIORITIZE AGENDA ITEMS**

**Time**      **Page No.**

#### **CONSENT CALENDAR**

##### **Approval Item**

- |   |                   |  |          |
|---|-------------------|--|----------|
| 1. <u>Minutes of the November 1, 2012 Meeting</u> | <b>Attachment</b> |  | <b>1</b> |
|---|-------------------|--|----------|

##### **Receive and File**

- |   |                   |  |          |
|---|-------------------|--|----------|
| 2. <u>Summary Report from Subcommittees</u> | <b>Attachment</b> |  | <b>8</b> |
|---|-------------------|--|----------|

#### **ACTION ITEM**

- |  |                   |                 |           |
|--|-------------------|-----------------|-----------|
| 3. <u>Transportation Control Measure (TCM) Substitution by Orange County Transportation Authority (OCTA)</u><br><i>(Rongsheng Luo, SCAG Staff)</i> | <b>Attachment</b> | <b>15 mins.</b> | <b>14</b> |
|--|-------------------|-----------------|-----------|

**Recommended Action:** Approve substitution by OCTA of a bus purchases and service expansion TCM project and recommend that the Regional Council adopt and direct staff to forward to U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) for concurrence.

#### **INFORMATION ITEMS**

- |  |                   |                 |           |
|--|-------------------|-----------------|-----------|
| 4. <u>2012 South Coast Air Quality Management Plan (AQMP) Update</u><br><i>(Rongsheng Luo, SCAG Staff)</i> | <b>Attachment</b> | <b>10 mins.</b> | <b>37</b> |
|--|-------------------|-----------------|-----------|

# ENERGY & ENVIRONMENT COMMITTEE

## AGENDA

### JANUARY 3, 2013

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#### INFORMATION ITEMS - continued

Time      Page No.

- |   |            |         |     |
|---|------------|---------|-----|
| 5. <u>Amendment to Contract No. 12-021-C1 with UCLA<br/>Luskin Center for Innovation<br/>(Marco Anderson, SCAG Staff)</u> | Attachment | 5 mins. | 118 |
|---|------------|---------|-----|

#### PUBLIC HEALTH SUBCOMMITTEE REPORT

##### CHAIR'S REPORT

*(Hon. Cheryl Viegas-Walker, Chair)*

##### STAFF REPORT

*(Jonathan Nadler, SCAG Staff)*

##### FUTURE AGENDA ITEM(S)

Any Committee member or staff desiring to place items on a future agenda may make such a request.

##### ADJOURNMENT

*The next Energy and Environment Committee is scheduled for Thursday, February 7, 2013, at the SCAG Los Angeles Office.*

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Energy and Environment Committee  
of the  
Southern California Association of Governments  
November 1, 2012

*Minutes*

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**THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE ENERGY AND ENVIRONMENT COMMITTEE. A DIGITAL RECORDING OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.**

The Energy and Environment Committee held its meeting at the SCAG Los Angeles Office. The meeting was called to order by the Hon. Cheryl Viegas-Walker, Chair. There was a quorum.

**Members Present**

Hon. Sylvia Ballin, San Fernando	District 67
Hon. Denis Bertone, San Dimas	SGVCOG
Hon. Margaret Clark, Rosemead	District 32
Hon. Jordan Ehrenkranz, Canyon Lake	WRCOG
Hon. Larry Forester	GCCOG
Hon. David Gafin, Downey	District 25
Hon. Ed Graham, Chino Hills	District 10
Hon. Keith Hanks, Azusa	District 33
Hon. James Johnson, Long Beach	District 30
Hon. Phil Luebben, Cypress	OCCOG
Hon. Judy Mitchell, Rolling Hills Estates	District 40
Hon. Lupe Ramos Watson, Indio	District 66
Hon. Jack Terrazas	Imperial County
Hon. Cheryl Viegas-Walker, El Centro	District 1
Hon. Diane Williams, Rancho Cucamonga	SANBAG
Hon. Edward Wilson, Signal Hill	Gateway Cities
Hon. Dennis Zine, City of Los Angeles	District 50

**Members Not Present**

Hon. Lisa Bartlett, Dana Point	TCA
Hon. Brian Brennan, San Buenaventura	VCOG
Hon. Jeff Duclos	SBCCOG
Hon. Mitchell Englander	District 59
Hon. Rafi Manoukian, Glendale	SFVCOG
Hon. Thomas Martin, Maywood	GCCOG
Hon. Sam Pedroza, Claremont	SGVCOG
Hon. Jeffery Prang, West Hollywood	WSCCOG
Hon. Ed Scott, Rialto	SANBAG
Hon. Mark Waldman, La Palma	OCCOG

## **CALL TO ORDER & PLEDGE OF ALLEGIANCE**

Hon. Cheryl Viegas-Walker, Chair, called the meeting to order at 10:01 a.m.

**PUBLIC COMMENT PERIOD** - None

## **REVIEW AND PRIORITIZE AGENDA ITEMS**

### **CONSENT CALENDAR**

#### **Approval Items**

1. Minutes of October 4, 2012 Meeting

A motion was made (Johnson) to approve the Consent Calendar. The motion was seconded (Ehrenkranz) and unanimously approved.

### **ACTION ITEMS**

2. 2012 South Coast Air Quality Management Plan (AQMP) Appendix IV-C: Regional Transportation Strategy and Control Measures

Jonathan Nadler, SCAG Staff, stated that SCAG, the South Coast Air Quality Management District (SCAQMD) and the Air Resources Board (ARB) are jointly responsible for preparing the AQMP. SCAG's portion, Appendix IV-C: Regional Transportation Strategy and Control Measures, includes a summary of the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and a list of committed Transportation Control Measures (TCMs). The appendix also includes an analysis of "reasonably available control measures" (RACM) as required by the Clean Air Act.

The AQMP is now under a second round of public review. During the first round of public review six (6) comments were received for which Staff prepared responses. Appendix IV-C is brought back to this committee with the requested recommendation for the RC to approve the AQMP pending any significant comments that might come during the second round of the public comment period. If there are any significant comments received during this process, staff will inform the Committee.

Hon. Margaret Clark inquired as to whether the term "best available control technology" is still used. Staff responded that the term is generally used in equipment permitting for stationary sources. The requirement is to review equipment using specified criteria to determine what is considered "best available control technologies."

Hon. Ed Graham inquired about transportation control measure No. 3.12, page 48 of Appendix IV-C (Attachment 2), specifically where it states "Income Tax Credit to Telecommuters," and whether there is any interest at the state-level about offering such a credit. Staff responded that this measure has been identified through the RACM analysis as one that has been considered in

another non-attainment area, but was not aware of such a proposal in California. Hon. Graham further inquired about the term “Guaranteed ride home” on page 57. Staff responded the concept is that when employees stay at work late after their employer-sponsored carpool has departed, there will be a way for them to get home.

Hon. James Johnson asked what role, if any, does zero emissions technology have in the AQMP and in future plans. Staff responded that zero and near-zero emissions technology will have a larger, essential role to play in future plans. Relative to transportation, SCAQMD, SCAG and partners throughout the state are planning for zero emissions vehicles, including electric vehicles charging infrastructure and demonstration projects for zero emissions freight movement.

The Committee further discussed whether Southern California Edison and other electric utilities are restricted from funding infrastructure improvements for electric plug-in vehicles, and directed staff to invite representatives from electric utility companies to present to the EEC as a future agenda item an update regarding electric vehicle programs.

A motion was made (Johnson) to recommend that the Regional Council adopt Resolution No.12-544-1 approving Appendix IV-C for inclusion in the 2012 South Coast AQMP subject to the conclusion of the final comment period. The motion was seconded (Mitchell) and unanimously approved.

3. Senate Bill 535 (de Leon) – California Global Warming Solutions Act of 2006; Greenhouse Gas Reduction (GHGR) Fund

Jonathan Nadler, SCAG Staff, stated that SB 535, enacted on September 30, 2012, requires the California Environmental Protection Agency (Cal/EPA) to identify disadvantaged communities for investment opportunities and requires the Department of Finance to allocate twenty-five percent of the available monies in the Greenhouse Gas Reduction Fund to projects that provide benefits to disadvantaged communities and to allocate a minimum of ten percent of the available monies in the fund to projects located within those communities. SB 535 does not specifically define disadvantaged communities and assigns that task to Cal/EPA. It further provides an opportunity for input into the process that will eventually determine how certain cap-and-trade revenues are allocated for the benefit of disadvantaged communities in the region.

Hasan Ikhata, SCAG Executive Director, encouraged the members of the Committee to attend or send city staff to participate in the discussion with Cal/EPA at a SCAG workshop on December 12, 2012.

Jeff Dunn, SCAG Staff, stated that there is uncertainty with respect to the amount of cap-and-trade revenues. However, under the framework that has been promulgated by the ARB, \$10.00 per emissions allowance, which is one metric ton of emissions, is the floor; \$50.00 is the ceiling. ARB is selling \$61 million emissions at the first auction on November 14, 2012. Roughly almost half is from 2013 vintage allowances and the other from 2015 vintage allowances which the ARB is selling in advance. Sixty (60) million to five hundred (500) million dollars are earmarked for the state general fund over the current budget arrangements.

A motion was made (Bertone) to approve the Legislative/Communications and Membership Committee (LCMC) recommendation to authorize SCAG to work with stakeholders to help identify disadvantaged communities for the purposes of SB 535, and to support the inclusion of statewide transportation coalition principles and adopted regional sustainable communities strategies into the projection selection criteria and process for allocating cap-and-trade revenues. The motion was seconded (Hanks) and approved by a majority vote. One member was opposed (Forester) based on opposition with the AB32 Cap-and-Trade program and the implicit approval of that program through a “yes” vote on this item.

## **SUBCOMMITTEE REPORT**

### Public Health Subcommittee Report

Hon. Deborah Robertson, Chair of the Public Health Subcommittee, gave a brief update on the Subcommittee’s actions and upcoming meetings. The first meeting of the Public Health Subcommittee was held October 1, 2012. There was discussion focusing on the preliminary health policy framework and performance measures included in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). She announced that a joint workshop of the Active Transportation, Public Health, and Sustainability Subcommittees will be held on November 5, 2012, at 10:00 a.m.

Hon. Cheryl Viegas-Walker asked how the subcommittee is framing the discussion with regard to outcomes as Subcommittees could become very broad in their discussion and noting the importance that the outcome be clearly understood. Hon. Deborah Robertson stated that the subcommittee needs to focus on the task at hand and how to accomplish it within the six meetings. The subcommittee needs to keep its focus on the objectives that relate to sustainable community strategies.

Hon. Judy Mitchell, Rolling Hills Estates, suggested it would be useful to get a working report of the Public Health Subcommittee meetings. Justine Block, SCAG staff counsel, responded that staff would include the suggested report with future EEC agendas. Ms. Block further stated that the Public Health Subcommittee has approved a Meeting Outlook which includes objectives to help guide the subcommittee’s discussions.

## **INFORMATION ITEMS**

### 4. Oil Supply and Energy Myths

Dr. David Goodstein, Professor of Physics and Applied Physics at Caltech, gave a presentation on oil supply and the energy myths that impede the transition from an oil-based economy. He discussed energy supply topics including new fossil fuel technologies, alternative fuel issues, and related challenges as they apply to the SCAG region, the state and the nation.

Dr. Goodstein presented the following conclusions:

- There will be an oil crisis very soon.

- If we switch from oil to natural gas and coal, it will have unpredictable consequences for our climate and these resources will also eventually run out. Fossil fuels will also run out eventually, perhaps by the end of this century.
- Pursuing fossil fuels will have unknown consequences for the planet's climate that could produce greenhouse gas runaway or even a frozen planet.
- The only alternative fuels, aside from gasoline, are solar and nuclear. We do not know whether we can arrange to have a civilization, as complicated as ours, based on those two alternative fuels.

##### 5. Climate Change Adaptation Study for Los Angeles County Update

Dr. Alex Hall, University of California Los Angeles (UCLA) Atmospheric Sciences Program, stated that the purpose of the study, *Mid-Century Warming in the Los Angeles Region*, is to provide credible and relevant information about climate change in the Los Angeles Region in the middle of the 21st Century. This is first in a series of data reports that will be released over the next year. The first set of data is on temperature and there will be other data sets on precipitation, wind effects, June-gloom, soil moisture and other factors.

Dr. Hall explained that *Mid-Century Warming in the Los Angeles Region* is the first study to provide specific climate-change predictions for the greater Los Angeles area, with unique predictions down to the neighborhood level. The report was produced by UCLA with funding and support from the City of Los Angeles, in partnership with the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC).

The study looked at the years 2041–60 to predict the average temperature change by mid-century. The data covers all of Los Angeles County and 30 to 60 miles beyond, including all of Orange County and parts of Ventura, San Bernardino and Riverside counties, and reaching as far as Palm Springs, Bakersfield and Santa Barbara. The study overlaid this entire area with a grid of squares 1.2 miles across and provided unique temperature predictions for each square. This is in contrast to global climate models, which normally use grids 60 to 120 miles across - big enough to include areas as different as Long Beach and Lancaster.

The study is unique in that it combines information from 19 global climate projections with local climate variables to give a full picture of the changing climate specific to the City of Los Angeles. Further, global climate projections historically look to the end of the century, around year 2100. This study looks at projections for a 20 year period occurring in midcentury for the years 2041-2060 which is more properly aligned within the scope of long term city planning.

For further information about the project, a website is available: <http://c-change.la/>

##### 6. Proposal for Additional Funding Under Contract with the California Energy Commission to Support National Public Campaign Regarding Plug-In Electric Vehicles (PEVs)

Jacob Lieb, SCAG Staff, stated that staff is in the middle of developing a regional plug-in electric vehicle (PEV) readiness plan. SCAG is doing this in partnership with the South Bay Cities

Council of Governments (SBCCOG) and Western Riverside Council of Governments (WRCOG) and working very closely with other partners including the South Coast Air Quality Management District (AQMD) and Southern California Edison (SCE). Staff recently became aware that there is an opportunity for SCAG to seek additional funding with our current grant contract. The purpose of this additional effort would be for SCAG to participate in a national marketing campaign around electric vehicles. There is a national advocacy group, 'Go Electric Drive,' and SCAG's role would be to represent the region to make sure that regional and California-wide messages are included in this national marketing campaign which is aimed at letting consumers know the benefits of selecting an electric vehicle.

**CHAIR'S REPORT** - None

**STAFF REPORT**

Jonathan Nadler, SCAG Staff, announced the following:

- 1) A notice of the public hearings for the South Coast Air Quality Management Plan to be held throughout the region on November 13, 14 and 15, 2012.
- 2) A subsidy for trading in your older backpack blower for a newer more low-emission low-noise model.

**FUTURE AGENDA ITEMS** - None

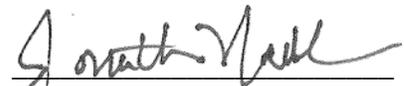
**ANNOUNCEMENTS** - None

**ADJOURNMENT**

Hon. Cheryl Viegas-Walker adjourned the meeting at 11:55 a.m.

The next meeting of the Energy & Environment Committee will be held on Thursday, January 3, 2013 at the SCAG Los Angeles Office.

Action Minutes Approved by:



Jonathan Nadler, Manager  
Compliance & Performance  
Monitoring

## Energy and Environment Committee Attendance Report

2012

Member (including Ex-Officio) LastName, FirstName	Date Appointed if after 1/1/12	Representing	X = County Represented						X = Attended							Black Shading = Dark				NM = New Member	Total Mtgs Attended				
			Imperial	Los Angeles	Orange	River side	San Bernardino	Ventura	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
Ballin, Sylvia*	9/6/2012	San Fernando		X														X	X	X				3	
Bartlett, Lisa*		OCCOG			X					X	X	X								X					5
Bertone, Denis		SGVCOG		X						X	X	X	G	X	X	X						X		E	7
Brennan, Brian		VCOG						X		X		X	E											C	2
Clark, Margaret*		Rosemead		X						X	X	X	N	X	X	X		X	X	X				O	9
Duclos, Jeff	5/14/2012	SBCCOG		X									E											N	
Ehrenkranz, Jordan		WRCOG					X			X		X	R			X				X	X			O	5
Englander, Mitchell*		Los Angeles		X									A											M	
Forester, Larry		Gateway Cities		X						X	X	X	L	X	X			X		X				I	7
Gafin, David*		Downey		X						X	X			X	X	X			X	X				C	7
Graham, Ed	5/3/2012	Chino Hills						X						X	X	X		X	X	X					6
Hanks, Keith		Azusa		X							X	X	A	X	X	X		X	X	X				S	8
Johnson James		Long Beach		X						X	X	X	S		X	X			X	X				U	7
Luebben, Phil		Cypress			X					X	X		S	X	X	X			X	X				M	7
Manoukian, Rafi	5/3/2012	SFVCOG		X									E		X									M	1
Martin, Thomas		GCCOG		X						X	X	X	M		X			X						I	5
Mitchell, Judy*		SBCCOG		X						X	X	X	B	X		X			X	X				T	7
Pedroza, Sam		SGVCOG		X						X	X	X	L	X	X	X			X						7
Pollack, David	11/2/2012	VCOG						X					Y									X			1
Prang, Jeffery	3/1/2012	West Hollywood		X								X			X										1
Ramos Watson, Lupe		CVAG					X				X	X		X	X	X						X			6
Scott, Edward		SANBAG						X																	
Terrazas, Jack		Imperial County	X							X		X		X	X	X						X			6
Viegas Walker, Cheryl*		El Centro	X							X	X	X		X	X	X			X	X					8
Waldman, Mark		La Palma			X					X	X	X													3
Williams, Diane	9/6/2012	SANBAG						X										X	X	X					3
Wilson, Edward		Signal Hill		X						X				X	X			X	X	X					6
Zine, Dennis*		Los Angeles		X						X	X	X			X	X			X	X					7
<b>TOTALS</b>			<b>2</b>	<b>16</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>																	

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**DATE:** January 3, 2013

**TO:** Community Economic and Human Development (CEHD) Committee  
Energy Environment Committee (EEC)  
Transportation Committee (TC)  
Regional Council (RC)

**FROM:** Michele Martinez, Chair, Active Transportation Subcommittee  
Barbara Messina, Chair, Goods Movement Subcommittee  
Pam O' Connor, Chair, Sustainability Subcommittee  
Gary Ovitt, Chair, Transportation Finance Subcommittee  
Deborah Robertson, Chair, Public Health Subcommittee  
Karen Spiegel, Chair, High-Speed Rail and Transit Subcommittee

**BY:** Huasha Liu, Director of Land Use and Environmental Planning, 213.236.1838, [liu@scag.ca.gov](mailto:liu@scag.ca.gov)  
Rich Macias, Director of Transportation Planning, 213.236.1805, [macias@scag.ca.gov](mailto:macias@scag.ca.gov)

**SUBJECT:** Summary Report from Subcommittees

**EXECUTIVE DIRECTOR'S APPROVAL:** 

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**RECOMMENDED ACTION:**  
For Information Only - No Action Required.

**EXECUTIVE SUMMARY:**  
*The Active Transportation, Goods Movement, High-Speed Rail and Transit, Public Health, Transportation Finance, and Sustainability Subcommittees have been meeting since September 2012. Presentations by SCAG staff, industry professionals, and other stakeholders have provided background information on issues facing the region relevant to each Subcommittee to facilitate information exchange and policy development around the respective emphasis areas, and help identify regional priorities and facilitate the implementation of the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In an effort to keep all Regional Council and Policy Committee members informed, a monthly report will be provided summarizing the work and progress of the Subcommittees.*

**STRATEGIC PLAN:**  
This item supports SCAG's Strategic Plan, Goal 1: Improve regional decision-making providing leadership and consensus building on key plans and policies.

**BACKGROUND:**  
At its April 5, 2012 meeting, the Regional Council approved the formation of Subcommittees as part of the implementation strategy for the 2012-2035 RTP/SCS. Charters for each Subcommittee were approved by the Regional Council in July 2012, and SCAG President Glen Becerra thereafter appointed to each of the six (6) Subcommittees both Regional Council and Policy Committee members from throughout the six SCAG counties as subcommittee members and representatives from the private sector and stakeholder groups as ex-officio members. The Active Transportation, Goods Movement, High-Speed Rail and Transit, and

# REPORT

Transportation Finance Subcommittees report to the Transportation Committee (TC). The Public Health Subcommittee reports to the Energy and Environment Committee (EEC). The Sustainability Subcommittee reports to the Community, Economic and Human Development Committee (CEHD). The Subcommittees began meeting in September 2012 with a goal of completing their discussion by February 2013 so that policy recommendations may be presented to TC, EEC and CEHD, and thereafter to the Regional Council as well as to the General Assembly as part of the annual meeting in May 2013.

The following represents a summary of the Subcommittee meetings since November 2012:

## **1. Active Transportation Subcommittee**

### 1st Meeting, October 3, 2012

The meeting was attended by Subcommittee members as well as representatives from various stakeholder organizations and sister agencies, including OCTA, Caltrans and Metro. Chair Michele Martinez reviewed the goals and objectives of the Subcommittee. The Subcommittee’s Meeting Outlook, which includes its six (6) meeting objectives, was discussed and approved. The Subcommittee was provided an overview and requested comments on the Active Transportation Work Plan for the next four (4) years. The final Work Plan will be considered for adoption by the Subcommittee at its final meeting.

Two informational presentations were made. Alan Crawford, City of Long Beach Bicycle Coordinator discussed Long Beach’s approach to being “the” bicycle friendly city. Charles Larwood, OCTA, discussed the Strategic Bikeway Program established in the fourth Orange County Supervisor District, which will be replicated throughout the county. These presentations showed the nexus between the SCAG regional bikeway network, county strategic bikeway programs and local implementation.

### 2nd Meeting, November 5, 2012

The meeting was a Joint Meeting of the three (3) Subcommittees: Active Transportation, Public Health, and Sustainability. Staff introduced policy frameworks that have been developed for each subcommittee. Each highlighted the following policy components: definitions, needs assessment, performance measurement, strategy, and investment. Staff elaborated on the role of Subcommittees in the development of the 2016 RTP/SCS. The meeting featured guest speakers from the Los Angeles Department of Transportation, the City of Anaheim, and the Coachella Valley Association of Governments. Guest speakers presented local projects and programs that promote active transportation, public health, and sustainability principles, and show the interrelated character of all three areas.

### 3rd Meeting, November 26, 2012

The focus of this meeting was ‘first mile/last mile’ strategies; including access to transit; Bike Share programs; and complete streets. Guest speakers represented the San Bernardino Associated Governments, “BikeNation” Bike Share Company, and the City of Santa Ana.

The policy framework for Active Transportation was discussed. The Subcommittee reviewed various aspects of active transportation, including the draft FY12-16 Work Plan; innovative strategies in Coachella Valley, Long Beach and Orange County; and first mile/last mile strategies. Staff will be introducing policy examples over the next few meetings for subcommittee review in preparation for the final Subcommittee Report.

## **2. Goods Movement Subcommittee**

### 1st Meeting, September 24, 2012

This meeting was intended to provide an overview of the goods movement related work accomplished to date by SCAG. Discussion focused on the specific strategies included in the 2012-2035 RTP/SCS, including an initial review of goods movement markets—particularly intra-regional truck movements or truck origins/distributions within the region. Discussion also highlighted SCAG’s recently completed Border Crossing Study including the magnitude and importance of the international land border crossings in Imperial County and data collection work completed for the study which targeted stakeholder surveys and truck intercept surveys. The Subcommittee approved the proposed Subcommittee Work Plan which includes discussion of goods movement economic impacts, strategies in the RTP, a zero and near-zero emissions technology advancement plan, and funding for goods movement projects.

### 2nd Meeting, October 29, 2012

Presentations and discussion continued to highlight key issues with market segmentation of goods movement. Michael Fischer of Cambridge Systematics provided an overview of goods movement market segmentations and additional information regarding the economics of goods movement. Dr. John Husing, Chief Economist, Inland Empire Economic Partnership, provided a presentation focusing on “International Trade and Economic Development.” Additionally, the meeting emphasized the importance of warehouse distribution activities. BJ Patterson, CEO of Pacific Mountain Logistics, provided a presentation on warehousing operation challenges. He specifically referenced both regulatory and local ordinance concerns. This meeting highlighted the various goods movement markets, and in particular emphasized the workforce/economic development potential associated with industrial development. This initial discussion was intended to better understand the warehousing industry in particular, and consider future analyses and direction to facilitate industrial development and workforce related issues. Key aspects of the presentation and discussion concerning the changing dynamics of warehousing operation and associated economic develop potential was of considerable interest to committee membership and is anticipated to be further highlighted for future direction at a later meeting.

### 3rd Meeting, December 10, 2012

The meeting focused on the environmental action plan for goods movement put forth in the 2012 RTP/SCS. SCAG staff presented information on this plan that describes rapid development and deployment of zero- and near-zero emissions technologies for goods movement. In addition, the Subcommittee heard from several of our regional partners regarding on-going efforts to advance zero emission technologies. Dr. Matt Miyasato, Assistant Deputy Executive Officer, Technology Advancement Office, South Coast Air Quality Management District (AQMD), discussed attainment challenges and ongoing AQMD technology advancement activities. Heather Tomley Assistant Director of Environmental Planning, Port of Long Beach, gave a presentation on the Ports’ Zero Emissions Road Map. Fred Silver, Vice President, CALSTART, discussed the feasibility of new technologies, funding opportunities and strategies to create conditions for alternative technology markets to develop. Finally, Frank Quon, Executive Officer, Highway Programs, Los Angeles County Metropolitan Transportation Authority (Metro), gave an update on their countywide zero emission freight collaborative. In addition to informing Subcommittee members of ongoing regional efforts to advance zero emission technologies, the presentations provided members with a better awareness of the feasibility of these technologies in the near future. Furthermore, the members learned of the

# REPORT

important role that they play as elected officials and members of SCAG governing board to show support for market development of these technologies and advocate for regulatory changes and additional funding.

### **3. High-Speed Rail & Transit Subcommittee**

#### 1st Meeting, October 5, 2012

The meeting was attended by Subcommittee members and representatives from SCAG’s partner agencies including XPressWest, Caltrans and the California High-Speed Rail Authority. Subcommittee Chair Karen Spiegel reviewed the purpose and objectives of the Subcommittee. The Subcommittee’s Work Plan and Deliverables were discussed and they were unanimously approved by the Subcommittee.

Three (3) presentations were made for informational purposes and included: 1) a regional rail update by SCAG Planner Steve Fox, 2) an overview of MAP-21 by SCAG Legislative Analyst Jeff Dunn, with particular emphasis on transit and rail, and 3) an update on Measure J by David Yale, Executive Officer at Metro. There was a good level of discussion by subcommittee members.

#### 2nd Meeting, November 9, 2012

The meeting was attended by Subcommittee members and representatives from SCAG’s partner agencies including OCTA, Caltrans and the California High-Speed Rail Authority.

The emphasis of this second meeting was on rail and the speakers provided a comprehensive and coordinated overview of rail projects and planning in our region. Presentations included: 1) an update on the CA High Speed Train project by Michelle Boehm, Southern California Regional Director; 2) an update on the Southern California High Speed Rail Memorandum of Understanding by Don Sepulveda, Executive Officer for Rail at Metro; 3) an update on Metrolink by Gray Crary, Metrolink Chief Strategic Officer; 4) an update on RCTC’s rail planning and implementation efforts by Sheldon Peterson, Riverside County Transportation Commission Rail Manager; 5) an update on the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor Agency Strategic Implementation Plan by Linda Bohlinger, HNTB Corporation; 6) an update on the 2013 California State Rail Plan by Linda Culp of the San Diego Association of Governments; and 7) an update on Amtrak’s Northeast Corridor Visioning Plan by Jonathan Hutchinson of Amtrak.

#### 3rd Meeting, December 21, 2012

The third Subcommittee meeting focused on transit and transit best practices. Items for discussion included a regional transit update, a presentation on travel behavior and transit mode choice, a presentation on smart fare media, and a discussion on first mile/last mile strategies.

### **4. Public Health Subcommittee**

#### 1st Meeting, October 1, 2012

Discussion focused on preliminary public health framework and performance measures included in the 2012–2035 RTP/SCS, including a review of technical and data limitations. Staff discussed other public health outcomes of interest and the inclusion of other health determinants in the 2016 RTP/SCS, including access to active transportation options, housing affordability, access to open space, and public safety. Staff also presented new scenario planning tools that are under development, which may provide potential public

# REPORT

health outputs that can be used in the 2016 RTP/SCS. Additionally, staff provided an update on the status of an application for a public health grant offered by the Robert Wood Johnson Foundation and Pew Charitable Trust. The grant proposal concept will assess the broader health impacts of High-Quality Transit Area (HQTA) communities in the SCAG region. The Subcommittee also reviewed and approved the proposed subcommittee Meeting Schedule.

## 2nd Meeting, November 5, 2012

This meeting was a joint meeting of the following three Subcommittees: Active Transportation, Public Health, and Sustainability. Please see above summary of second meeting of the Active Transportation Subcommittee.

## 3rd Meeting, November 28, 2012

This meeting focused more closely on specific aspects of the public health policy framework presented at the previous meeting by staff. Representatives from Physicians for Social Responsibility, Los Angeles, the American Lung Association, and the Public Health Institute presented local priorities that help define public health and healthy communities, along with suggestions on how local needs assessment can be applied at the regional level. Neil Maizlish, from the State Department of Public Health, gave a presentation on the Integrated Transport and Health Impact Modeling Tool (ITHIM), which provides integrated health impact assessment of transportation policies and scenarios through changes in physical activity, road traffic injury risk, and urban air pollution. ITHIM is being currently used in a number of studies to estimate the health impact of scenarios, compare the impact of travel patterns in different places, and model the impact of interventions. SCAG staff concluded the meeting by reviewing all components of the policy framework, including Definitions and Needs Assessment and Performance Measurement, Strategy, and Investment.

## **5. Sustainability Subcommittee**

### 1st Meeting, October 1, 2012

The first meeting was intended to provide an overview of the analytical tools available to prepare development scenarios for the 2016 RTP/SCS. Peter Calthorpe, Principal, Calthorpe and Associates, presented a case study of one such software system called “Urban Footprint.” SCAG staff presented an overview of the 2016 RTP/SCS development process, which will cover the next three and half years. Discussion focused on the availability of tools and processes to local officials, as well continuing the successful relationship established between SCAG and local cities during the development of the 2012-2035 RTP/SCS. Additionally, there was discussion about the difference between large lot and small lot single family homes and their applicability to different urban contexts. Discussion focused on the need to revive tools like redevelopment which will allow local cities to fill the financing gap between desired development and market supported development.

### 2nd Meeting, November 5, 2012

This meeting was a joint meeting of the following three (3) Subcommittees: Active Transportation, Public Health, and Sustainability. Please see above summary of second meeting of the Active Transportation Subcommittee.

### 3rd Meeting, December 11, 2012

This meeting focused on the building industry, and its role in sustainable development. Key questions discussed included the cost of infrastructure, the thresholds SCAG should use for large lot versus compact

# REPORT

lot housing, and the existing barriers to infill development. Speakers featured David Shepherd, Building Industry Association representative; Mott Smith representing the Infill Builders Association; and David Pogue of CB Richard Ellis. The speakers discussed their experience followed by a panel discussion in which they led with the Subcommittee members and staff. SCAG staff also re-introduced the Policy Framework, which included comments from Subcommittee members.

## **6. Transportation Finance Subcommittee**

### 1st Meeting, October 12, 2012

This meeting focused on an overview of the financial plan context and strategies incorporated into the 2012-2035 RTP/SCS. Staff reviewed key assumptions about inflation, construction costs, and various economic drivers that impact SCAG’s financial forecasting. Staff also reviewed the key revenue strategies and discussed potential next steps. Susan Bransen, Deputy Director of the California Transportation Commission (CTC), provided an update on the Statewide Ten-Year Needs Assessment, including a discussion of the projected shortfall and potential funding options being considered for a final report to the CTC. Cosette Stark, Director of Research and Development for the Los Angeles County Metropolitan Transportation Authority, spoke on the Measure J initiative. The Subcommittee discussed various funding options and cost efficiency measures. The Subcommittee reviewed and approved the proposed Work Plan.

### 2nd Meeting, November 16, 2012

This meeting addressed managing capital project costs and expediting project delivery. Staff provided a brief presentation reviewing project cost considerations including components of material and labor costs, trends and economic implications. Dr. Wallace Walrod, Chief Economic Advisor, Orange County Business Council, presented an initial economic analysis of the benefits of expediting project delivery. Richard Bacigalupo, Federal Relations Manager for the Orange County Transportation Authority (OCTA) provided a presentation on OCTA’s initiative, “Breaking Down Barriers,” which is intended to accelerate the creation of jobs by expediting the process of planning, funding, and constructing federally-assisted transportation projects. Subcommittee member Denny Zane, provided a presentation on the potential for lowering voter threshold requirement for local transportation measures.

### 3rd Meeting, December 21, 2012

The third meeting of the Subcommittee focused on system preservation costs, system preservation as a cost containment strategy, and potential revenue options to achieve a state of good repair. Chris Williges, Principal with System Metrics Group, provided an overview of highway system preservation efforts and an update on the status of the State Highway Operation and Protection Program (SHOPP). Margot Yapp, Vice President of Nichol Consulting Engineers, presented an overview of the California Statewide Needs Assessment of local streets and roads system preservation needs and discussed potential revenue options under consideration. Patrick DeChellis, Deputy Director, Los Angeles County Department of Public Works, lead a discussion on system preservation needs and the importance of maintaining our existing assets. Roderick Diaz, a Transportation Planning Manager with the Los Angeles County Metropolitan Transportation Authority (Metro), provided a briefing on Metro’s evaluation of transit system preservation needs and efforts to achieve a state of good repair.

### **FISCAL IMPACT:**

Funding for the Subcommittees is included in the FY 2012-2013 Budget.

### **ATTACHMENT:**

None

**DATE:** January 3, 2013  
**TO:** Energy and Environment Committee (EEC)  
**FROM:** Rongsheng Luo, Program Manager, (213) 236-1994, luo@scag.ca.gov  
**SUBJECT:** Transportation Control Measure (TCM) Substitution by Orange County Transportation Authority (OCTA)

**EXECUTIVE DIRECTOR'S APPROVAL:** 

**RECOMMENDED ACTION:**  
Approve substitution by OCTA of a bus purchases and service expansion TCM project and recommend that Regional Council adopt and direct staff to forward to U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) for concurrence.

**EXECUTIVE SUMMARY:**  
*SCAG staff has received a request from the OCTA to substitute a committed TCM for bus purchases and service expansion with regional traffic signal synchronization projects throughout Orange County. SCAG staff has determined that the proposed TCM substitution meets all federal and state requirements.*

**STRATEGIC PLAN:**  
This item supports the Strategic Plan Goal 1. Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies: Objective a) Create and facilitate a collaborative and cooperative environment to produce forward thinking regional plans.

**BACKGROUND:**  
TCMs are defined as transportation projects or programs that adjust trip patterns or otherwise modify vehicle use in ways that reduce air pollutant emissions and which are specifically identified and committed to in the most recently approved Air Quality Management Plan/State Implementation Plan (AQMP/SIP). TCMs are included in an AQMP/SIP as part of the overall control strategy to demonstrate a region's ability to attain the National Ambient Air Quality Standards.

In the SCAG region, TCM-type projects are considered committed once they have funds programmed for right-of-way or construction in an approved SCAG Federal Transportation Improvement Program (FTIP). When a committed TCM cannot be delivered or will be significantly delayed, the substitution of the TCM follows the process specified in the Clean Air Act (CAA) §176(c).

OCTA has requested that SCAG substitute a bus purchases and service expansion TCM project (FTIP Project ID #: ORA041501) programmed in the SCAG FTIP with ten (10) regional traffic signal synchronization projects throughout Orange County. For further details about the proposed TCM substitution, please refer to the attachment.

# REPORT

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The Draft TCM Substitution Report was released for a 15-day public review concluding December 13, 2012; No comments were received. As documented in the attachment, the proposed substitution is consistent with all federal and state requirements. Therefore, staff recommends approval of the above-described TCM substitution for forwarding to Federal and State agencies.

While the TCM substitution does not require a new conformity determination or a formal SIP revision, the SCAG region maintains transportation conformity after the substitution. SCAG's adoption of the new TCMs with concurrence of EPA and ARB will rescind the original bus purchases and service expansion TCM project and the new traffic signal synchronization TCM projects will become effective.

**FISCAL IMPACT:**

Work associated with this item is included in the current FY12-13 Overall Work Program (13-025. SCG0164.01: Air Quality Planning and Conformity).

**ATTACHMENT:**

Transportation Control Measure (TCM) Substitution Report (ORA041501 – Bus Purchases and Service Expansion)

SOUTHERN CALIFORNIA



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Transportation

Keith Millhouse, Ventura County

Transportation Commission

# TRANSPORTATION CONTROL MEASURE (TCM) SUBSTITUTION REPORT

## (ORA041501 – Bus Purchases and Service Expansion)

### January 2013.

## INTRODUCTION

Transportation Control Measures (TCMs) are defined as transportation projects or programs that adjust trip patterns or otherwise modify vehicle use in ways that reduce air pollutant emissions. TCMs are included in the most recently approved Air Quality Management Plan (AQMP)/State Implementation plan (SIP) as part of the overall control strategy to demonstrate a region's ability to come into attainment with the National Ambient Air Quality Standards (NAAQS). In the SCAG region, only two ozone nonattainment areas include TCMs in their AQMPs/SIPs: South Coast Air Basin and Ventura County portion of the South Central Coast Air Basin. TCM-type projects in these nonattainment areas are considered committed once they have funds programmed for right-of-way or construction in the first two years of an approved SCAG Federal Transportation Improvement Program (FTIP). When a committed TCM project cannot be delivered or will be significantly delayed, the substitution of the TCM project follows the process specified in the Clean Air Act (CAA) Section 176(c)(8).

The Orange County Transportation Authority (OCTA) has requested that SCAG substitute a planned project for bus purchases and service expansion which is included as a committed TCM in the South Coast Ozone SIP with ten regional traffic signal synchronization projects throughout Orange County (see Appendix A). As documented herein, the proposed substitution is consistent with federal and state requirements including the U.S. Environmental Protection Agency's (EPA) Transportation Conformity Regulations.

## TCM SUBSTITUTION PROCESS

The substitution process set forth in the Transportation Conformity Regulations is included in the 2007 AQMP for the South Coast Air Basin and described in SCAG's 2013 FTIP Guidelines.

The County Transportation Commissions (CTCs) and/or project sponsors notify SCAG when a TCM project cannot be delivered or will be significantly delayed. SCAG and the CTCs then identify and evaluate possible replacement measures for individual substitutions with consultation of the TCWG, which includes members from all affected jurisdictions, federal, state and/or local air quality agencies and transportation agencies.

Substitution of individual TCMs is provided for by the CAA Section 176(c)(8), under the following conditions:

- "(i) if the substitute measures achieve equivalent or greater emissions reductions than the control measure to be replaced, as demonstrated with an emissions impact analysis that is consistent with the current methodology used for evaluating the replaced control measure in the implementation plan;
- "(ii) if the substitute control measures are implemented-
  - "(I) in accordance with a schedule that is consistent with the schedule provided for control measures in the implementation plan; or
  - "(II) if the implementation plan date for implementation of the control measure to be replaced has passed, as soon as practicable after the implementation plan date but not



later than the date on which emission reductions are necessary to achieve the purpose of the implementation plan;

"(iii) if the substitute and additional control measures are accompanied with evidence of adequate personnel and funding and authority under State or local law to implement, monitor, and enforce the control measures;

"(iv) if the substitute and additional control measures were developed through a collaborative process that included--

"(I) participation by representatives of all affected jurisdictions (including local air pollution control agencies, the State air pollution control agency, and State and local transportation agencies);

"(II) consultation with the Administrator; and

"(III) reasonable public notice and opportunity for comment; and

"(v) if the metropolitan planning organization, State air pollution control agency, and the Administrator concur with the equivalency of the substitute or additional control measures."

In addition to the conditions above, the 2007 South Coast AQMP states that the substitute project shall be in the same air basin and preferably be located in the same geographic area and preferably serve the same demographic subpopulation as the TCM being replaced.

A TCM substitution does not require a new conformity determination or a formal SIP revision. SCAG adoption of the new TCM with concurrence of the U.S. EPA and California Air Resources Board (ARB) rescinds the original TCM and the substitution becomes effective.

## PROJECT DESCRIPTION

The 2013 Federal Transportation Improvement Program (FTIP) includes a programmed project for bus purchases (71 buses) and service expansion with a completion date of June 30, 2016 in Orange County. Obstacles to the planning and implementation of the bus purchases and service expansion project by the completion date have been identified. Consequently, OCTA proposes to substitute ten regional traffic signal synchronization projects, with a total funding over \$6 million and covering 102 miles of roadway and 355 signalized intersections throughout Orange County, for the bus purchases and service expansion project. The signal synchronization will not include bus override. The ten regional traffic signal synchronization projects, expected to be completed by June 2014, are new projects and are not yet classified as committed TCMs.

## COMPLIANCE WITH SUBSTITUTION REQUIREMENTS

*Interagency Consultation.* Interagency consultation on the proposed substitution occurred at two publicly noticed TCWG meetings on September 25 and October 23, 2012 respectively. The TCM substitution request document was released for a 15-day public review period; No comments were received by the conclusion of the public review period.

*Equivalent Emissions Reduction.* OCTA has analyzed the countywide emissions impacts of the substitute projects and concluded that the replacement projects provide equal or greater emission



reductions. SCAG staff has reviewed and concurred with the methodology OCTA used for the analysis.

*Similar Geographic Area.* Both the bus purchases and service expansion project and the ten regional traffic signal synchronization projects are located within the Orange County portion of the South Coast Air Basin.

*Full Funding.* OCTA has secured over \$6 million reserved for traffic signal synchronization from Measure M2 and local agencies for the ten regional traffic signal synchronization projects.

*Similar Time Frame.* The proposed projects will be operational by June 2014, ahead of the schedule of the bus purchases and service expansion project.

*Timely Implementation.* The proposed substitution is the means by which the obstacle to implementation of the bus purchases and service expansion project TCM is being overcome. The replacement projects will be monitored through TCM Timely Implementation Reports that SCAG releases for public review and submits for federal approval.

*Legal Authority.* OCTA has legal authority and personnel to implement and operate the substitute projects.

*Agency Review and Adoption.* After the 15-day public review period, the substitution will be presented to SCAG's Energy and Environment Committee (EEC) for approval. Upon EEC's approval, the substitution will be presented to SCAG's Regional Council for adoption. Concurrence from U.S. EPA and ARB will rescind the original TCM and the new measures will become effective.

*Programming of the Substitute TCMs.* After obtaining the concurrence from ARB and EPA, the substitute TCMs will be included into the conforming FTIP.



## **Appendix A**

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### **OCTA Substitution Request**





AFFILIATED AGENCIES

Orange County  
Transit District

Local Transportation  
Authority

Service Authority for  
Freeway Emergencies

Consolidated Transportation  
Service Agency

Congestion Management  
Agency

Service Authority for  
Abandoned Vehicles

September 25, 2012

Mr. Hasan Ikhtrata  
Executive Director  
Southern California Association of Governments  
818 W. 7th Street, 12th Floor  
Los Angeles, CA 90017

Dear Mr. Ikhtrata: *Hassem*

The current economic downturn has significantly impacted the Orange County Transportation Authority's (OCTA) ability to absorb new bus transit capital costs. OCTA has a transportation control measure in the current Federal Transportation Improvement Program (FTIP) that must be delayed in order to bring capital costs into balance with ongoing operation costs and available resources. This project is the bus purchase and service expansion project (ORA041501).

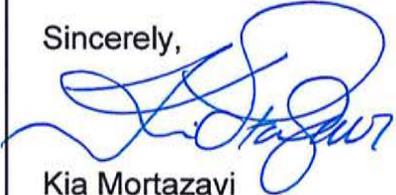
OCTA recognizes that substitute projects are required by air quality regulations if a project is to be removed from the FTIP. OCTA requests that the bus purchase and service expansion project be substituted with ten regional signal synchronization projects throughout Orange County. The signal synchronization projects offer equivalent air quality benefits and will be implemented on an equivalent schedule to the bus purchase and service expansion project. OCTA and the local agency partners have committed over \$6 million towards the signal synchronization projects. I have attached a report prepared by OCTA staff describing the specifics of the request, the air quality analysis methodology, and its benefits.

OCTA would like to proceed with the substitution process for the bus purchase and service expansion project at your earliest convenience. We understand the substitution process starts with the Southern California Association of Governments' recommendation to the Transportation Conformity Working Group (TCWG). We would greatly appreciate your assistance in preparing for and working through the substitution process with our state and federal partners on the TCWG.

Mr. Hasan Ikhata  
September 25, 2012  
Page 2

Please contact Anup Kulkarni, Section Manager, Regional Modeling, at (714) 560-5867 for the next steps on the substitution process and follow-up on the attachment. Thank you for your assistance in this important matter.

Sincerely,



Kia Mortazavi  
Executive Director, Planning

KM:ak  
Attachments

c: Huasha Liu, SCAG  
Rongsheng Luo, SCAG  
Jonathan Nadler, SCAG  
Kia Mortazavi, OCTA  
Kurt Brotcke, OCTA  
Anup Kulkarni, OCTA  
Domingo MacLang, OCTA

# **Replacement of Bus Purchase Transportation Control Measure with Regional Signal Synchronization Transportation Control Measure**

## Introduction

The Orange County Transportation Authority previously committed to funding of the purchase of an additional 71 buses by June 2016 (ORA041501) in support of increased bus service as a single transportation control measure (TCM). Due to financial pressures, the implementation of this bus purchase and service expansion TCM is recommended to be replaced. For air quality conformity purposes, OCTA is proposing signal synchronization along ten regional corridors (regional signal synchronization) as a single replacement TCM to the previously planned bus purchase TCM in the Federal Transportation Improvement Program. The project description and air quality modeling results are discussed below.

## Project Description

The regional signal synchronization TCM consists of the following set of corridors listed below and graphically illustrated in Attachment A.

- Crown Valley Parkway
- Goldenwest Street
- Marguerite Parkway
- Talbert Avenue/MacArthur Boulevard
- Warner Avenue
- Bastanchury Road
- Jamboree Road
- Lambert Road
- Lincoln Avenue/Nohl Ranch Road
- Euclid Street

Synchronized signal timing will be implemented on all the listed corridors. The regional signal synchronization TCM includes 102 miles of roadway, 355 signalized intersections, and will be completed by June 2014 with equivalent air quality benefits to the region.

## Compliance with Substitution Requirements

- Equivalent Emissions Reduction: OCTA has analyzed the countywide emissions impacts of the substitute TCM (regional signal synchronization) and concluded that it provides equal or greater emission reductions to the original TCM. See the Air Quality Analysis Methodology below.

- Similar Geographic Area: Both the bus purchase and service expansion TCM and the regional signal synchronization TCM are located in the Orange County portion of the South Coast Air Basin.
- Full Funding: OCTA has current funding from Measure M2 and local agency in an amount of over \$6 million for the regional signal synchronization TCM.
- Similar Time Frame: The proposed regional signal synchronization TCM will be operational by June 2014, equivalent to the schedule of the bus purchase and service expansion TCM schedule.
- Timely Implementation: The proposed substitution is the means by which the obstacle to implementation of the bus purchase and service expansion TCM is being overcome.
- Legal Authority: OCTA has legal authority and personnel to implement and operate the substitute regional signal synchronization TCM.

#### Air Quality Analysis Methodology

The air quality impacts of the projects were calculated with the proposed regional signal synchronization TCM using a multi-step method based on the SCAG emission methodology focused on Orange County. The following process was used:

Step 1: Obtain daily vehicle miles traveled (VMT) and speed data for freeways and arterials from Orange County Transportation Analysis Model (OCTAM). OCTAM is a conventional transportation model used to forecast travel demand with a forecast year of 2035. It is consistent with SCAG's regional model as it incorporates the most recent socio-economic data for Orange County and the surrounding region. Each alternative was modeled separately using OCTAM and post-processed using the NCHRP 255 process. This process provides a standard methodology to refine forecasted volumes on links based on a combination of base year traffic counts, base year model estimates, and forecasted model estimates using incremental adjustments. The output of the travel demand model and post-processing included travel information on both the bus purchase and service expansion TCM and regional signal synchronization TCM. Loaded link information, intrazonal travel speeds, and intrazonal travel volumes were extracted for all modeled time periods for both alternatives.

The coding of both TCM's was consistent with previous OCTAM modeling practices. This included modeling additional bus routes and increased bus frequency on established routes. On local streets and roads, OCTAM includes freeflow speeds that reflect a combination of classification of the roadway along with delays associated traffic signals, driveways and other impediments. To reflect the implementation of the signal synchronization, these freeflow travel speeds were

increased by five percent to represent the impact of signal coordination on that roadway.

Step 2: Run the SCAG emissions program for the base and forecast year 2035 using the extracted information from Step 1 as input to obtain vehicle starts, VMT, and vehicle population data. The program automatically updates all required inputs to reflect the OCTAM runs and produces files that are input to the California Air Resources Board Emission Factors (EMFAC) model. EMFAC is used throughout California to calculate emission rates from motor vehicles, such as passenger cars and heavy-duty trucks, operating on freeways and local roads for typical summer, winter, and annual conditions. EMFAC provides an estimate of the level of exhaust emissions (via Reactive Organic Gases [ROG] and Nitrogen Oxides [NOx]) for all Orange County. Note that interpolation between base and forecast year 2035 results was used to estimate the emissions changes for both interim years 2014 and 2023.

Step 3: Using the emissions output from Step 2 (see Attachments) to identify the potential emissions-related impacts of the bus purchase and service expansion TCM and regional signal synchronization TCM.

Findings

The air quality forecasts for the bus purchase and service expansion TCM were compared with those of the regional signal synchronization TCM using the methodology described in the previous section. Three forecast years - 2014, 2023, and 2035 – as well as three conditions – summer, winter, and annual – were compared and their results follow in the tables below.

**Bus Purchase and Service Expansion TCM**

Ozone - Summer Planning Emissions (Tons/Day)

	<b>2014</b>	<b>2023</b>	<b>2035</b>
ROG	38.6	28.6	15.4
NOx	69.9	48.6	20.2

Carbon Monoxide, Nitrogen Dioxide - Winter Emissions (Tons/Day)

	<b>2014</b>	<b>2023</b>	<b>2035</b>
NOx	77.0	53.3	21.7
CO	368.4	257.2	108.9

PM<sub>10</sub>, PM<sub>2.5</sub> - Annual Emissions (Tons/Day)

	<b>2014</b>	<b>2023</b>	<b>2035</b>
ROG	38.7	28.6	15.1
NOx	70.7	49.1	20.3
PM <sub>10</sub>	4.3	4.4	4.5
PM <sub>2.5</sub>	2.9	2.9	2.9

Regional Signal Synchronization TCM

Ozone - Summer Planning Emissions (Tons/Day)

	<b>2014</b>	<b>2023</b>	<b>2035</b>
ROG	38.6	28.6	15.4
NOx	69.9	48.6	20.2

Carbon Monoxide, Nitrogen Dioxide - Winter Emissions (Tons/Day)

	<b>2014</b>	<b>2023</b>	<b>2035</b>
NOx	77.0	53.3	21.7
CO	368.3	257.2	108.9

PM<sub>10</sub>, PM<sub>2.5</sub> - Annual Emissions (Tons/Day)

	<b>2014</b>	<b>2023</b>	<b>2035</b>
ROG	38.7	28.6	15.1
NOx	70.7	49.1	20.3
PM <sub>10</sub>	4.3	4.4	4.5
PM <sub>2.5</sub>	2.9	2.9	2.9

The results indicate that the proposed regional signal synchronization TCM will have equivalent or greater air quality benefits to the bus purchase and service expansion TCM in Orange County and the region.

## Attachments

- A. Regional Signal Synchronization TCM Map
- B. 2014 Bus Purchase and Service Expansion TCM Emissions Results
- C. 2014 Regional Signal Synchronization TCM Emissions Results
- D. 2023 Bus Purchase and Service Expansion TCM Emissions Results
- E. 2023 Regional Signal Synchronization TCM Emissions Results
- F. 2035 Bus Purchase and Service Expansion TCM Emissions Results
- G. 2035 Regional Signal Synchronization TCM Emissions Results
- H. Southern California Association of Governments TIP Sheet for ORA041501



**ATTACHMENT B**

2014 Bus Purchase and Service Expansion TCM Emissions Results

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2014  
Season : Summer  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG Total	32.9	5.3	0.4	38.6
NOx	31.0	35.4	3.5	69.9
PM10	3.0	1.2	0.1	4.3
PM2.5	1.8	1.0	0.1	2.9
CO	317.5	41.5	6.0	365.0

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2014  
Season : Winter  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
NOx	35.4	37.8	3.8	77.0
CO	317.0	45.2	6.2	368.4

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2014  
Season : Annual  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	32.7	5.6	0.4	38.7
NOx	32.0	35.2	3.5	70.7
PM10	3.0	1.2	0.1	4.3
PM2.5	1.8	1.0	0.1	2.9
CO	322.1	45.0	6.2	373.3

**ATTACHMENT C**

2014 Regional Signal Synchronization TCM Emissions Results

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2014  
Season : Summer  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	32.9	5.3	0.4	38.6
NOx	31.0	35.4	3.5	69.9
PM10	3.0	1.2	0.1	4.3
PM2.5	1.8	1.0	0.1	2.9
CO	317.5	41.5	6.0	365.0

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2014  
Season : Winter  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
NOx	35.4	37.8	3.8	77.0
CO	316.9	45.2	6.2	368.3

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2014  
Season : Annual  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	32.7	5.6	0.4	38.7
NOx	32.0	35.2	3.5	70.7
PM10	3.0	1.2	0.1	4.3
PM2.5	1.8	1.0	0.1	2.9
CO	322.0	45.1	6.2	373.3

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**ATTACHMENT D**

2023 Bus Purchase and Service Expansion TCM Emissions Results

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2023  
Season : Summer  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	24.5	3.8	0.3	28.6
NOx	20.4	25.1	3.1	48.6
PM10	3.4	0.9	0.1	4.4
PM2.5	2.1	0.7	0.1	2.9
CO	223.1	28.4	4.1	255.6

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2023  
Season : Winter  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
NOx	23.3	26.7	3.3	53.3
CO	221.8	31.2	4.2	257.2

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2023  
Season : Annual  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	24.3	4.0	0.3	28.6
NOx	21.1	25.0	3.0	49.1
PM10	3.4	0.9	0.1	4.4
PM2.5	2.1	0.7	0.1	2.9
CO	225.5	31.0	4.2	260.7

**ATTACHMENT E**

2023 Regional Signal Synchronization TCM Emissions Results

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2023  
Season : Summer  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	24.5	3.8	0.3	28.6
NOx	20.4	25.1	3.1	48.6
PM10	3.4	0.9	0.1	4.4
PM2.5	2.1	0.7	0.1	2.9
CO	223.0	28.4	4.1	255.5

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2023  
Season : Winter  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
NOx	23.3	26.7	3.3	53.3
CO	221.8	31.2	4.2	257.2

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2023  
Season : Annual  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	24.3	4.0	0.3	28.6
NOx	21.1	25.0	3.0	49.1
PM10	3.4	0.9	0.1	4.4
PM2.5	2.1	0.7	0.1	2.9
CO	225.5	31.0	4.2	260.7

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**ATTACHMENT F**

2035 Bus Purchase and Service Expansion TCM Emissions Results

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2035  
Season : Summer  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG Total	13.3	1.9	0.2	15.4
NOx	6.3	11.4	2.5	20.2
PM10	3.8	0.6	0.1	4.5
PM2.5	2.4	0.4	0.1	2.9
CO	97.1	11.0	1.5	109.6

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2035  
Season : Winter  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
NOx	7.2	11.8	2.7	21.7
CO	94.9	12.5	1.5	108.9

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2035  
Season : Annual  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	12.9	2.0	0.2	15.1
NOx	6.5	11.4	2.4	20.3
PM10	3.8	0.6	0.1	4.5
PM2.5	2.4	0.4	0.1	2.9

CO

96.7

12.3

1.5

110.5

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**ATTACHMENT G**

2035 Regional Signal Synchronization TCM Emissions Results

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2035  
Season : Summer  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG Total	13.3	1.9	0.2	15.4
NOx	6.3	11.4	2.5	20.2
PM10	3.8	0.6	0.1	4.5
PM2.5	2.4	0.4	0.1	2.9
CO	97.1	11.0	1.5	109.6

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2035  
Season : Winter  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
NOx	7.2	11.8	2.7	21.7
CO	94.9	12.5	1.5	108.9

-----

Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
Scen Year : 2035  
Season : Annual  
I/M Stat : Enhanced Interim (2005)  
Emissions : Tons per Period

ON-ROAD EMISSIONS

\*\*\*\*\*

VRIABLS	L & MDV	HDV	OTHER	ALL VEHICLE
ROG	12.9	2.0	0.2	15.1
NOx	6.5	11.3	2.5	20.3
PM10	3.8	0.6	0.1	4.5
PM2.5	2.4	0.4	0.1	2.9
CO	96.7	12.3	1.5	110.5

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**ATTACHMENT H**

**Southern California Association of Governments TIP Sheet for ORA041501**

**Orange County Transportation Authority  
2013 Federal Transportation Improvement Program (\$000)**

<b>TIP ID</b> ORA041501		<b>Implementing Agency</b> Orange County Transportation Authority (OCTA)																										
SCAG RTP Project # ORA041501 PPN#: EA Number: IFAS #:		Project Title PURCHASE (71) STANDARD 30FT EXPANSION BUSES - ALTERNATIVE FUEL - (31) IN FY08-09, (9) IN FY09-10, (7) IN FY11-12, (6) IN FY12-13 AND (18) IN FY13-14 Project Description PURCHASE (71) STANDARD 30FT EXPANSION BUSES - ALTERNATIVE FUEL - (31) IN FY08-09, (9) IN FY09-10, (7) IN FY11-12, (6) IN FY12-13 AND (18) IN FY13-14																										
System Route Postmile <b>Transit 0 to 0</b>	<table border="1"> <thead> <tr> <th>Fiscal Year</th> <th>Revenue Source</th> <th>Engineering</th> <th>Right of Way</th> <th>Construction</th> <th>Total Revenue</th> </tr> </thead> <tbody> <tr> <td>10/11</td> <td>TDA - Transportation Development Act</td> <td></td> <td></td> <td>\$5,351</td> <td>\$5,351</td> </tr> <tr> <td>11/12</td> <td>TDA - Transportation Development Act</td> <td></td> <td></td> <td>\$3,647</td> <td>\$3,647</td> </tr> <tr> <td></td> <td></td> <td align="right">\$0</td> <td align="right">\$0</td> <td align="right">\$8,998</td> <td align="right">\$8,998</td> </tr> </tbody> </table>				Fiscal Year	Revenue Source	Engineering	Right of Way	Construction	Total Revenue	10/11	TDA - Transportation Development Act			\$5,351	\$5,351	11/12	TDA - Transportation Development Act			\$3,647	\$3,647			\$0	\$0	\$8,998	\$8,998
Fiscal Year	Revenue Source	Engineering	Right of Way	Construction	Total Revenue																							
10/11	TDA - Transportation Development Act			\$5,351	\$5,351																							
11/12	TDA - Transportation Development Act			\$3,647	\$3,647																							
		\$0	\$0	\$8,998	\$8,998																							
Program Code BUR17 - BUSES-REPLACEMENT-ALTERNATIVE FUEL Environmental Document CATEGORICALLY EXEMPT - Conformity Category TCM Air Basin SCAB Project Completion Date 08/30/2016 Current Implementation Status Bid/Advertise Phase - 05/16/2008 Project Manager William Dineen - (714) 560-5917 Last Modified By Ben Ku on 03/05/2012 Administrative Comments: Given the poor economic environment, the OCTA has decided not to expand their 30-foot bus fleet. Therefore, this project has been canceled/deleted. It will be deleted and substituted later																												
Last Revised <b>Adoption 13-00 - SCAG PENDING</b>					Total Cost <b>\$8,998</b>																							

Wednesday, November 14, 2012

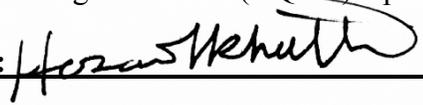
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**DATE:** January 3, 2013

**TO:** Regional Council (RC)  
Energy and Environment Committee (EEC)

**FROM:** Rongsheng Luo, Program Manager, (213) 236-1994, luo@scag.ca.gov

**SUBJECT:** 2012 South Coast Air Quality Management Plan (AQMP) Update

**EXECUTIVE DIRECTOR'S APPROVAL:** 

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**RECOMMENDED ACTION:**

For Information Only – No Action Required.

**EXECUTIVE SUMMARY:**

*Staff will provide an update on the Final 2012 AQMP which was adopted by the Governing Board of the South Coast Air Quality Management District (AQMD) on December 7, 2012.*

**STRATEGIC PLAN:**

This item supports SCAG's Strategic Plan, Goal 1: Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies; Objective a) Create and facilitate a collaborative and cooperative environment to produce forward thinking regional plans.

**BACKGROUND:**

The 2012 AQMP, jointly prepared by the South Coast AQMD, the California Air Resources Board (ARB), and SCAG, reflects and incorporates SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). As authorized by the Regional Council on November 1, 2012, staff formally transmitted to AQMD the Final Appendix IV-C, Regional Transportation Strategy and Control Measures, for inclusion in the Final 2012 AQMP subject to the conclusion of the public comment period for the Revised Draft 2012 AQMP. No comments on the Appendix IV-C were received by the end of the public comment period. However, after the conclusion of the public comment period, AQMD received a comment letter signed by several environmental organizations which included a reference to SCAG's portion of the AQMP. The reference suggested a "robust review" of SCAG's transportation control measures (TCMs) as part of the ozone attainment demonstration. Pursuant to the Clean Air Act, SCAG staff has performed a comprehensive and thorough review of TCMs and determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all reasonably available control measures. SCAG will continue to undertake such review of TCMs as part of future planning efforts.

On December 7, 2012, the South Coast AQMD Governing Board held a public hearing and adopted the Final 2012 AQMP. The Final 2012 AQMP was subsequently submitted to the ARB for inclusion into the State Implementation Plan (SIP). Pursuant to CAA, ARB will submit the SIP to the U.S. Environmental Protection Agency (EPA). Any issues that arise through review by ARB and/or EPA will be reported to the EEC and RC.

It is important to note that the 2012 AQMP includes new PM<sub>2.5</sub> emissions budgets (i.e., the upper limit for PM<sub>2.5</sub> emissions from on-road transportation activities in the South Coast Air Basin). Upon EPA's approval, the new PM<sub>2.5</sub> emissions budgets will be required to be used for transportation conformity for the

# REPORT

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South Coast region for future Regional Transportation Plan/Federal Improvement Program (RTP/FTIP) and RTP/FTIP amendments. Also, pursuant to recent court decisions, the Final 2012 AQMP addresses the 1-hour ozone standard and the vehicle miles travelled (VMT) emissions offset requirements.

**FISCAL IMPACT:**

Work associated with this item is included in the current FY12-13 Overall Work Program (13-025.SCG0164.01: Air Quality Planning and Conformity).

**ATTACHMENTS:**

1. Final 2012 AQMP Executive Summary
2. 2012 AQMP Appendix IV-C Transmittal Package to SCAQMD

## **EXECUTIVE SUMMARY**

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### **Introduction**

**Why Is This Final Plan Being Prepared?**

**Is Air Quality Improving?**

**How Did the Recent Recession Affect Air Quality?**

**What Are the Major Sources Contributing to Air Quality Problems?**

**What Is the Overall Control Strategy in the 2012 AQMP?**

**Why Not Request The Full 5-Year Extension to Meet the 24-Hour  
PM2.5 Standard?**

**Why and How Is the 8-Hour Ozone Plan Being Updated?**

**Given the Current Difficult and Uncertain Economic Conditions,  
Should the District Wait Before Adding Additional Regulatory  
Refined Control Commitments into the SIP?**

**Is the 2012 AQMP Being Coordinated with the State's Greenhouse Gas  
Reduction Efforts?**

## **INTRODUCTION**

The long-term trend of the quality of air we Southern Californians breathe shows continuous improvement, although the slowing rate of improvement in ozone levels causes concern. The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its Air Quality Management Plans (AQMP). Yet the air in Southern California is far from meeting all federal and state air quality standards and, in fact, is among the worst in the nation. Stemming from the preponderance of latest health evidence, new federal fine particulate (PM<sub>2.5</sub>) and 8-hour surface-level ozone standards are more stringent than the previous standards. To reach federal Clean Air Act (CAA) deadlines over the next two decades, Southern California must significantly accelerate its pollution reduction efforts.

Continuing the Basin's progress toward clean air is a challenging task, not only to recognize and understand complex interactions between emissions and resulting air quality, but also to pursue the most effective possible set of strategies to improve air quality, maintain a healthy economy, and coordinate efforts with other key public and private partners to meet a larger set of transportation, energy and climate objectives. To ensure continued progress toward clean air and comply with state and federal requirements, the South Coast Air Quality Management District (AQMD or District) in conjunction with the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG) and the U.S. Environmental Protection Agency (U.S. EPA) have prepared the Final 2012 AQMP (Plan). The Plan employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources and area sources.

The Final Plan demonstrates attainment of the federal 24-hour PM<sub>2.5</sub> standard by 2014 in the South Coast Air Basin (Basin) through adoption of all feasible measures. The Final Plan also updates the U.S. EPA approved 8-hour ozone control plan with new measures designed to reduce reliance on the CAA Section 182 (e)(5) long-term measures for NO<sub>x</sub> and VOC reductions.

The Final 2012 AQMP also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. This Plan builds upon the approaches taken in the 2007 AQMP for the South Coast Air Basin for the attainment of federal PM and ozone standards, and highlights the significant

amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under federal Clean Air Act.

The Final 2012 AQMP also includes an update on the air quality status of the Salton Sea Air Basin (SSAB) in the Coachella Valley, a discussion of the emerging issues of ultrafine particle and near-roadway exposures, an analysis of the energy supply and demand issues that face the Basin and their relationship to air quality. The Plan also includes a new demonstration of 1-hour ozone attainment and vehicle miles travelled (VMT) emissions offsets, as per recent U.S. EPA requirements.

This Final Plan as well as other key supporting information are available electronically and can be downloaded from the District's home page on the Internet (<http://www.aqmd.gov/aqmp/2012aqmp/index.htm>).

## **WHY IS THIS FINAL PLAN BEING PREPARED?**

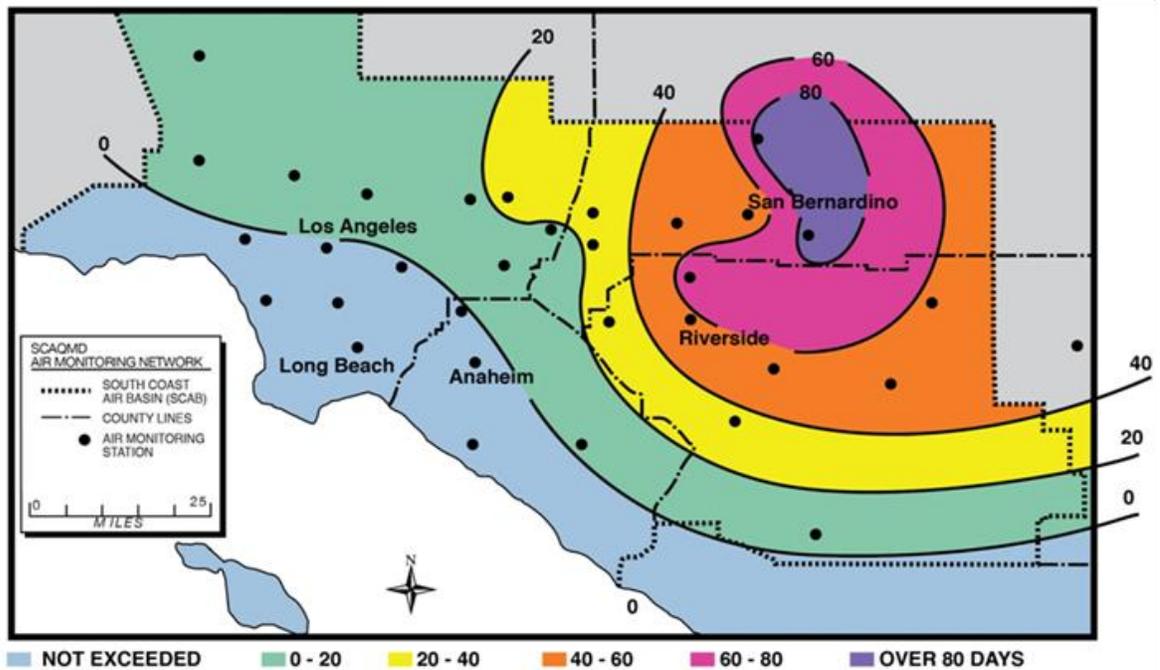
The federal Clean Air Act requires a 24-hour PM<sub>2.5</sub> non-attainment area to prepare a State Implementation Plan (SIP) which must be submitted to U.S. EPA by December 14, 2012. The SIP must demonstrate attainment with the 24-hour PM<sub>2.5</sub> standard by 2014, with the possibility of up to a five-year extension to 2019, if needed. U.S. EPA approval of any extension request is based on the lack of feasible control measures to move forward the attainment date by one year. The District's attainment demonstration shows that, with implementation of all feasible controls, the earliest possible attainment date is 2014, and thus no extension of the attainment date is needed.

In addition, the U.S. EPA requires that transportation conformity budgets be established based on the most recent planning assumptions (i.e., within the last five years) and approved motor vehicle emission models. The Final Plan is based on the most recent assumptions provided by both CARB and SCAG for motor vehicle emissions and demographic updates and includes updated transportation conformity budgets.

## **IS AIR QUALITY IMPROVING?**

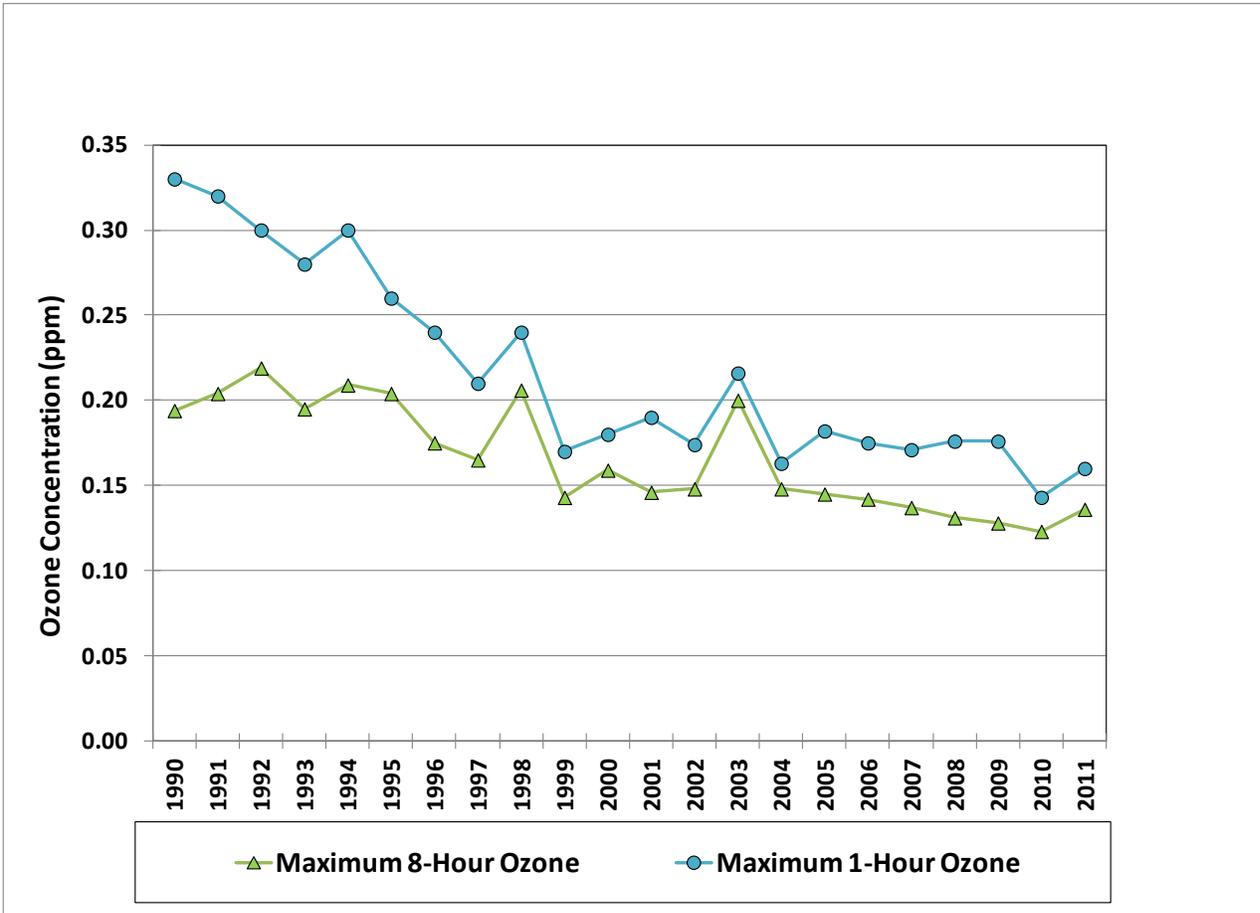
Yes. Over the years, the air quality in the Basin has improved significantly, thanks to the comprehensive control strategies implemented to reduce pollution from mobile and stationary sources. For instance, the total number of days on which the Basin

experiences high ozone levels has decreased dramatically over the last two decades. As shown in Figure ES-1, the majority of exceedances occur in the mountains and valleys of Southwestern San Bernardino County. The maximum 8-hour ozone levels measured in the Basin were well above 200 ppb in the early 1990s, and are now less than 140 ppb. Figure ES-2 shows the long-term trend in ambient 8-hour average and 1-hour average ozone levels since 1990. However, the Basin still exceeds the federal 8-hour standard more frequently than any other location in the U.S. Under federal law, the Basin is designated as an "extreme" nonattainment area for the 8-hour ozone standard.



**FIGURE ES-1**

2011 8-Hour Ozone: Number of Days Exceeding the Current Federal Standard  
(8-hour average ozone > 0.075 ppm)



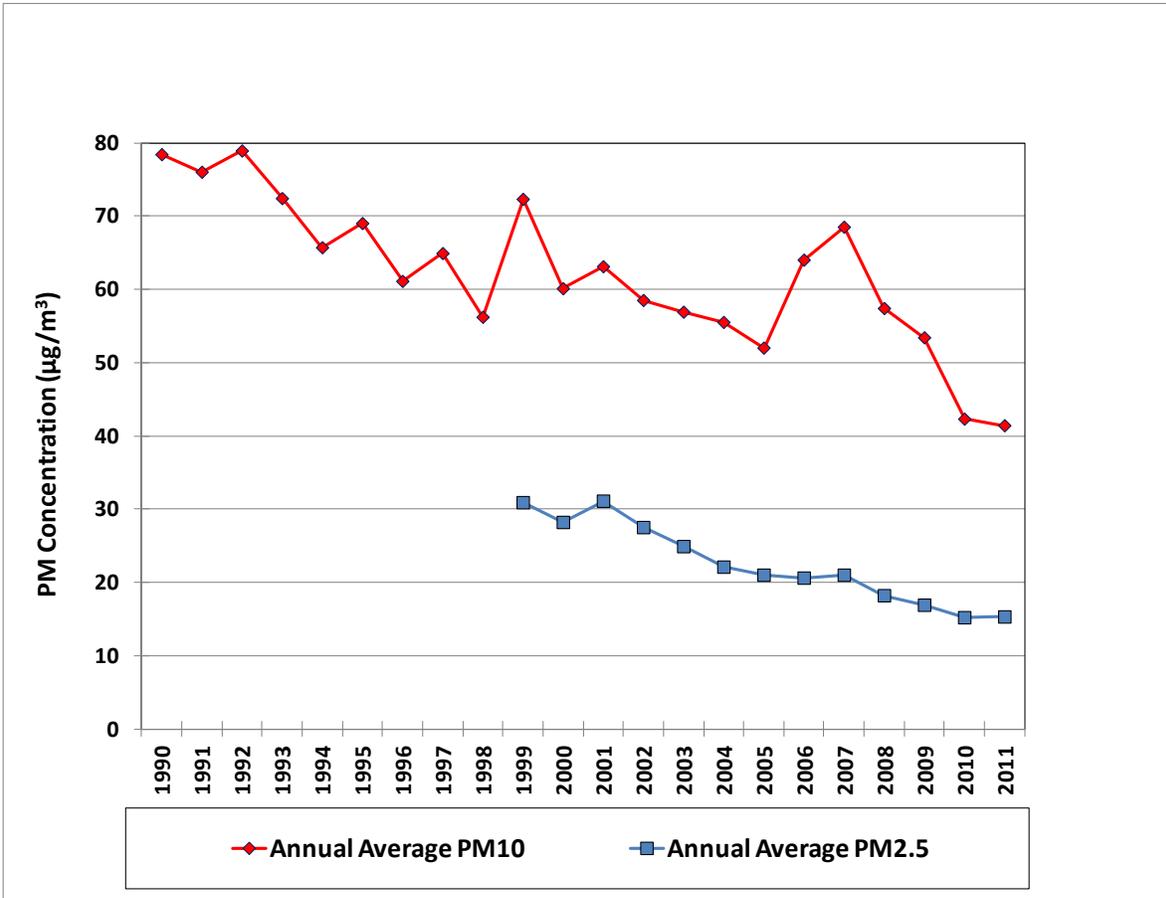
**FIGURE ES-2**

Maximum 1-Hour and 8-Hour Average Ozone Trends in the Basin

The rate of progress in improving ozone air quality has slowed for the last several years. The District has conducted extensive analysis, held technical forums, and reviewed all available scientific literature examining the issue of why progress has slowed, including the accuracy of emissions inventories, the effectiveness of control strategies, and the knowledge of photochemical processes. The overall result is that a strategy focusing primarily on NO<sub>x</sub> reductions has been deemed the best way to achieve long-term ozone attainment objectives. However, a recurring policy question is whether another approach, such as significant VOC reductions, would be as effective at reducing ozone levels. But given that NO<sub>x</sub> reductions are needed not only to achieve the ozone standards but also to achieve the PM<sub>2.5</sub> standards, and given that a heavy VOC reduction strategy alone could not achieve the ozone standards, a NO<sub>x</sub>-heavy control strategy is considered best. VOC reductions are, however, still needed to provide additional ozone benefits, especially in the western areas of the Basin.

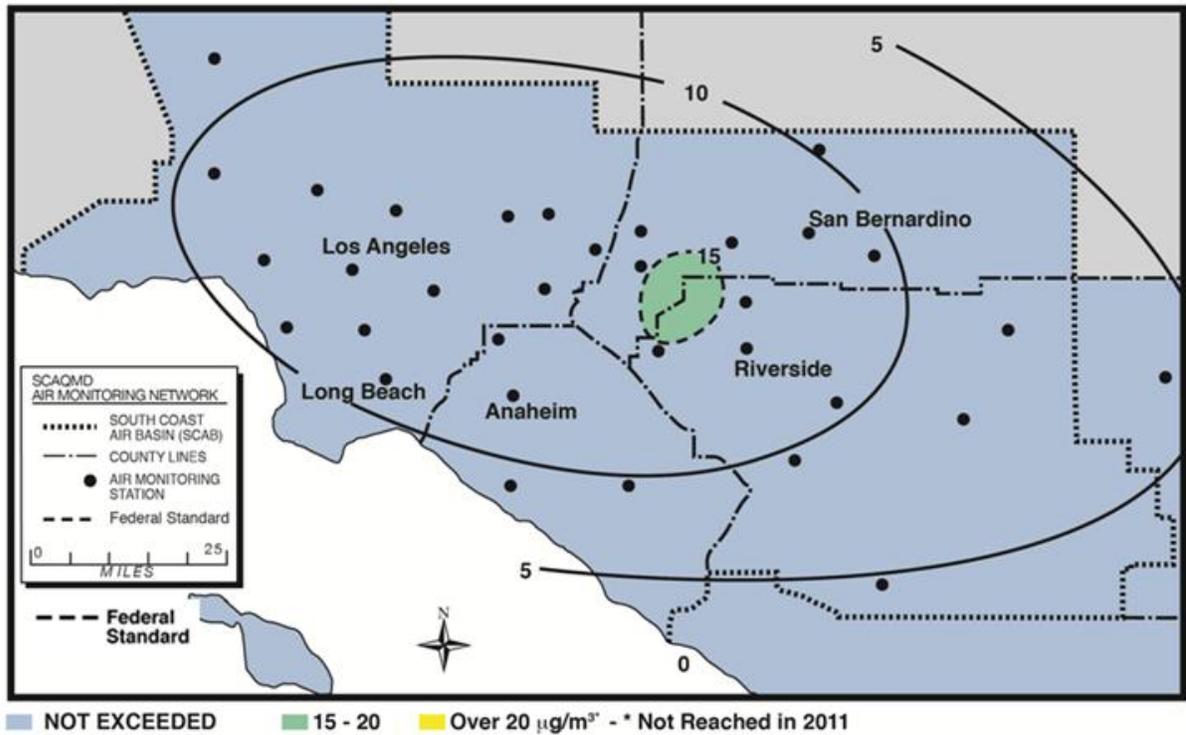
Relative to the 1-hour ozone standard, which was revoked by the U.S. EPA in favor of the new 8-hour ozone standard, the past air pollution control programs have had an overall positive impact. The number of days in which the Basin exceeds the federal 1-hour ozone standard has continually declined over the years. But as seen in Figure ES-2, the rate of progress has slowed since 2000. The Basin currently still experiences ozone levels over the revoked 1-hour federal standard on approximately 5% of the days. U.S. EPA guidance has indicated that while certain planning requirements remained in effect, a new SIP would not be required if an area failed to attain the standard by the attainment date. However, recent litigation and court decisions have suggested that there is likely a need for the District to prepare a new 1-hour ozone SIP in the near future. If a 1-hour ozone SIP is requested by U.S. EPA, the SIP would be due within 12 months of such a SIP call. The attainment demonstration in the SIP would have to show attainment within 5 years with a potential 5-year extension, which would be a similar time frame as the 1997 8-hr ozone standard deadline of 2023. Based on previous modeling estimates, the control strategies that are needed to attain the 8-hour ozone standard are nearly identical to those that would be needed to attain the 1-hour ozone standard.

Both PM10 and PM2.5 levels have improved dramatically over the past two decades. Annual average PM10 concentrations have been cut in half since 1990, and likewise, annual average PM2.5 concentrations have been cut in half since measurements began in 1999 (Figure ES-3). The Basin has met the PM10 standards at all stations and a request for re-designation to attainment is pending with U.S. EPA. In 2011, both the annual PM2.5 standard ( $15 \mu\text{g}/\text{m}^3$ ) and the 24-hour PM2.5 standard (98<sup>th</sup> percentile greater than  $35 \mu\text{g}/\text{m}^3$ ) were exceeded at only one air monitoring station, Mira Loma, in Northwestern Riverside County (Figure ES-4). The primary focus of this Final 2012 AQMP is to bring the Basin into attainment with the 24-hour PM2.5 standard.



**FIGURE ES-3**

Maximum-Site Annual Average PM10, PM2.5 Trends in the Basin



**FIGURE ES-4**

2011 PM<sub>2.5</sub>: Annual Average Concentration Compared to the Federal Standard  
(Federal standard = 15 µg/m<sup>3</sup>, annual arithmetic mean)

In 2011, the Basin did not exceed the standards for carbon monoxide, nitrogen dioxide, or sulfur dioxide<sup>1</sup>.

Although exposure to pollution has decreased substantially in the Basin through several decades of implementing pollution controls, increases in the population over that time have made further emissions reductions more difficult. Many sources, such as automobiles and stationary sources, have been significantly controlled. However, increases in the number of sources, particularly those growing proportionately to population, can offset the potential air quality benefits of past and existing regulations. The net result is that unless additional steps are taken to further control air pollution, growth itself may begin to reverse the gains of the past decades.

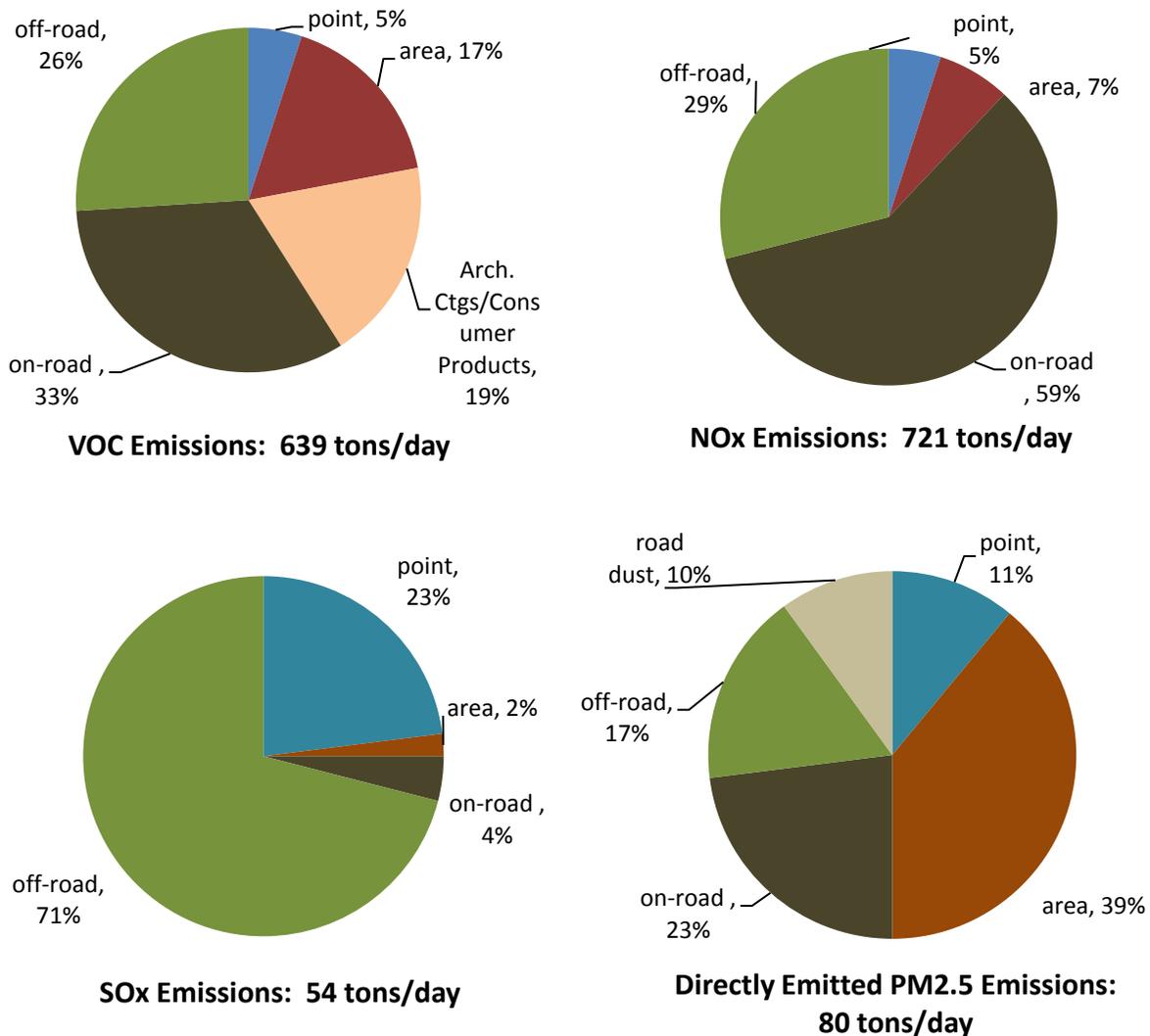
<sup>1</sup> U.S. EPA recently revised the NO<sub>2</sub> and SO<sub>2</sub> air quality, but analysis to date shows continued compliance with these newly mandated levels.

## **HOW DID THE RECENT RECESSION AFFECT AIR QUALITY?**

As shown above, air quality has improved over the last five years. Many factors affect air quality, including meteorological conditions, emissions, and control programs designed to reduce those emissions. The recession that began in late 2007, and continued reduced economic activity in the Basin, has also impacted pollutant emission levels. For example, goods movement activity declined by more than 20%, construction activity dropped by approximately 40%, and high fuel prices led to less vehicle miles travelled. It is difficult to determine exactly which portion of the air quality gains seen over the last five years are related to the economic downturn, but a rough estimate suggests that 15 - 20% of the recent improvements in air quality are attributable to economic factors. As the economy recovers, commercial activity will increase, and there is the potential for some emissions increases. The Final 2012 AQMP utilizes the most recent economic data and projections, including data from SCAG, which include some levels of economic growth. Using these assumptions, the analysis demonstrates that air quality will continue to improve in the future, but not to the degree necessary to achieve air quality standards without additional control programs.

## **WHAT ARE THE MAJOR SOURCES CONTRIBUTING TO AIR QUALITY PROBLEMS?**

Figure ES-5 shows the sources of NO<sub>x</sub>, VOC, SO<sub>x</sub>, and direct PM<sub>2.5</sub> emissions for 2008. PM<sub>2.5</sub> levels benefit from reductions in all four pollutants. On a per ton basis, the greatest PM<sub>2.5</sub> benefit results from SO<sub>x</sub> and direct PM<sub>2.5</sub> emissions reductions. In the Basin, ozone levels benefit from both NO<sub>x</sub> and VOC reductions.



**FIGURE ES-5**

Relative Contribution by Source Category to 2008 Emission Inventory  
(VOC & NOx – Summer Planning; SOx, & PM2.5 – Annual Average Inventory)

## WHAT IS THE OVERALL CONTROL STRATEGY IN THE 2012 AQMP?

The Final 2012 AQMP outlines a comprehensive control strategy that meets the requirement for expeditious progress towards attainment with the 24-hour PM2.5 NAAQS in 2014 with all feasible control measures. The Plan also includes specific measures to further implement the ozone strategy in the 2007 AQMP to assist attaining the 8-hour ozone standard by 2023. The 2007 AQMP demonstrated attainment with the

2023 8-hour ozone standard using a provision of the federal CAA, Section 182(e)(5), that allows credit for emissions reductions from future improvements in control techniques and technologies. These “black box” emissions reductions are still needed to show attainment with the 2023 8-hour ozone NAAQS. Accordingly, these Section 182(e)(5) reductions still account for about 65% of the remaining NOx emissions reductions needed in 2023. Given the magnitude of these needed emission reductions, it is critical that the Basin maintain its continuing progress and work actively towards achieving as many specific emissions reductions as possible, and not wait until subsequent AQMPs to begin to address this looming shortfall.

As stated above, the only air monitoring station that is currently exceeding or projected to exceed the 24-hour PM2.5 standard by 2014 is Mira Loma in Western Riverside County. Consistent with U.S. EPA guidance, seasonal or episodic controls that focus on bringing the Mira Loma station into compliance can be considered as a method to bring the Basin into attainment.

The control measures contained in the Final 2012 AQMP can be categorized as follows:

*Basin-wide Short-term PM2.5 Measures.* Measures that apply Basin-wide, have been determined to be feasible, will be implemented by the 2014 attainment date, and are required to be implemented under state and federal law. The main short-term measures are episodic, in that they only apply during high PM2.5 days and will only be implemented as needed to achieve the necessary air quality improvements.

*Contingency Measures.* Measures to be automatically implemented if the Basin fails to achieve the 24-hour PM2.5 standard by 2014.

*8-hour Ozone Measures.* Measures that provide for necessary actions to maintain progress towards meeting the 2023 8-hour ozone NAAQS, including regulatory measures, technology assessments, key investments, and incentives.

*Transportation Control Measures.* Measures generally designed to reduce vehicle miles travelled (VMT) as included in SCAG’s 2012 Regional Transportation Plan.

Many of the control measures proposed are not regulatory in form, but instead focus on incentives, outreach, and education to bring about emissions reductions through voluntary participation and behavioral changes needed to complement regulations.

## **WHY NOT REQUEST THE FULL 5-YEAR EXTENSION TO MEET THE 24-HOUR PM2.5 STANDARD?**

The U.S. EPA deadline for meeting the 24-hour PM2.5 NAAQS is 2014, with a possible extension of up to five years. The extension is not automatic, and approval of an extension request will be based on a demonstration that there are no additional feasible control measures available to move up the attainment date by one year. As demonstrated in Chapter 5 of this Final 2012 AQMP, with the existing control program the Basin can attain the 24-hour PM2.5 standard by 2019, the latest possible attainment date with a full five-year extension granted by U.S. EPA. Under the federal CAA, the Basin must achieve the federal NAAQS “as expeditiously as practicable.” Therefore, if feasible measures to advance attainment are available, they must be adopted and implemented in the SIP. With all feasible measures implemented, including the episodic controls proposed, the Basin can achieve attainment by 2014 without requesting an extension.

## **WHY AND HOW IS THE 8-HOUR OZONE PLAN BEING UPDATED?**

Given the continuing challenge of achieving the magnitude of emissions reductions needed to meet the federal 2023 8-hour ozone deadline, this Plan updates the previous 8-hour ozone plan with new emission reduction commitments from a set of new control measures, which further implement the 2007 AQMP commitments. The 2023 deadline is fast approaching and the magnitude of needed emission reductions remains about the same as it was in the 2007 AQMP. It is not a prudent or efficient strategy to wait for future plans and controls to achieve all of these reductions when they are possible today. Thus, these Final 2012 AQMP measures serve as a down payment for the much larger reductions that will be needed in future years.

Furthermore, these additional emissions reductions are needed to demonstrate attainment with the revoked 1-hour ozone standard. Due to a recent court decision, U.S. EPA has proposed to require a new 1-hour ozone attainment demonstration. The 1-hour ozone attainment strategy is essentially identical to the 8-hour ozone attainment strategy, including the updates in the Final 2012 AQMP. The 1-hour ozone attainment demonstration is included as an appendix to this Plan.

The U.S. EPA approved the 8-hour ozone SIP portion of the 2007 AQMP in 2011. The submittal of the Final 2012 AQMP will update certain portions of that SIP submittal. Namely, the new 8-hour ozone control measures will be submitted into the SIP with commitments for corresponding emissions reductions.

**GIVEN THE CURRENT DIFFICULT AND UNCERTAIN ECONOMIC CONDITIONS, SHOULD THE DISTRICT WAIT BEFORE ADDING REFINED CONTROL COMMITMENTS INTO THE SIP?**

No. The PM2.5 measures are required to be submitted by December 14, 2012. As for ozone, the challenges are too great, the stakes too high, and the deadlines too soon. Waiting until the last few years to try and achieve the necessary emission reductions will make the efforts more difficult, disruptive, and probably more expensive. However, the district remains sensitive to the current economic climate and the struggles that many local businesses are experiencing. That is why this Final 2012 AQMP strives to identify the most cost-effective and efficient path to achieve federal clean air standards. A number of the measures proposed in the Plan are voluntary incentive and/or education programs that aim to achieve emission reductions without imposing new regulatory requirements. The episodic control approach seeks to minimize overall cost and economic impacts by focusing on the limited numbers of days and locations still experiencing the exceedances of the federal standards.

Furthermore, the effort to achieve multiple clean air goals will require significant public investments in the region over a long period of time. These investments need to be accomplished in an optimum fashion starting now. This also has the potential to create new Southern California jobs in clean technology sectors such as renewable power, energy efficiency, clean products, and advanced emissions controls. Fulfilling this unique opportunity to concentrate these clean air investments and jobs in the region where the air quality problems exist will require strong partnerships among all levels of government and business interests.

**IS THE 2012 AQMP BEING COORDINATED WITH THE STATE'S GREENHOUSE GAS REDUCTION EFFORTS?**

The Basin faces several ozone and PM attainment challenges, as strategies for significant emission reductions become harder to identify and the federal standards continue to become more stringent. California's Greenhouse Gas reductions targets under AB32 add new challenges and timelines that affect many of the same sources that emit criteria pollutants. In finding the most cost-effective and efficient path to meet multiple deadlines for multiple air quality and climate objectives, it is essential that an integrated planning approach is developed. Responsibilities for achieving these goals span all levels of government, and coordinated and consistent planning efforts among multiple government agencies are a key component of an integrated approach.

To this end, and concurrent with the development of the 2012 AQMP, the District, the Air Resources Board, and San Joaquin Valley Air Pollution Control District engaged in a joint effort to take a coordinated and integrated look at strategies needed to meet California's multiple air quality and climate goals, as well as its energy policies. California's success in reducing smog has largely relied on technology and fuel advances, and as health-based air quality standards are tightened, the introduction of cleaner technologies must keep pace. More broadly, a transition to zero- and near-zero emission technologies is necessary to meet 2023 and 2032 air quality standards and 2050 climate goals. Many of the same technologies will address air quality, climate and energy goals. As such, strategies developed for air quality and climate change planning should be coordinated to make the most efficient use of limited resources and the time needed to develop cleaner technologies. The product of this collaborative effort, the draft *Vision for Clean Air: A Framework for Air Quality and Climate Planning*, examines how those technologies can meet both air quality and climate goals over time. A public review draft of this document is now available at <http://www.aqmd.gov/aqmp/2012aqmp> and serves as context and a resource for the 2012 AQMP.

SOUTHERN CALIFORNIA

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Paula Lantz, PomonaEnergy & Environment  
Cheryl Viegas-Walker, El CentroTransportation  
Keith Millhouse, Ventura County  
Transportation Commission

November 12, 2012

Dr. Barry R. Wallerstein  
Executive Officer  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

RE: Transmittal of AQMP Appendix VI-C, Regional Transportation Strategy and Control Measures

Dear Dr. Wallerstein:

On behalf of the SCAG Regional Council, I would like to thank you for presenting the 2012 Air Quality Management Plan (AQMP) to the SCAG Regional Council and the GLUE Council and clarification of their questions.

As authorized by the SCAG Regional Council on November 1, 2012, I am pleased to formally transmit the Draft Final 2012 AQMP Appendix VI-C, Regional Transportation Strategy and Control Measures, subject to the conclusion of the public comment period for the revised Draft 2012 AQMP. As directed by the Regional Council, SCAG staff will appropriately respond to any additional comments received and transmit to AQMD. Also included in this transmittal is SCAG Resolution No. 12-544-1 approving Appendix IV-C and responses to comments on the Draft 2012 AQMP Appendix IV-C.

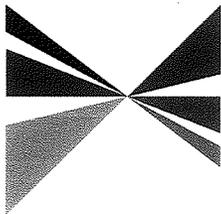
I look forward to continuing our agencies' collaboration and partnership in air quality and transportation planning to improve air quality, mobility, economic development and job creation in the Southern California region.

If you have any questions, please do not hesitate to contact myself or Huasha Liu, Director of Land Use and Environmental Planning, at (213) 236-1838 or [liu@scag.ca.gov](mailto:liu@scag.ca.gov).

Sincerely,

Hasan Ikhrata  
Executive Director

Attachments (3)



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Cheryl Viegas-Walker, El Centro

Transportation

Keith Millhouse, Ventura County

Transportation Commission

**RESOLUTION NO. 12-544-1**

**A RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG) APPROVING APPENDIX IV-C FOR INCLUSION IN THE 2012 SOUTH COAST AIR QUALITY MANAGEMENT PLAN**

**WHEREAS**, Section 110(a) of the Federal Clean Air Act (42 U.S.C. §7410(a)) and federal regulations at 40 C.F.R. §52.220 et seq. require each state to adopt a plan known as the State Implementation Plan (SIP) for implementation, maintenance and enforcement of primary and secondary national ambient air quality standards in each air quality control region of the state; and

**WHEREAS**, the South Coast Air Basin is designated as a non-attainment area for the 2006 national ambient air quality standards (NAAQS) for 24-hour fine particulate matter (PM2.5). A PM2.5 SIP demonstrating attainment with these standards is due to the U.S. Environmental Protection Agency (EPA) by December 2012; and

**WHEREAS**, EPA recently published a proposed "SIP call" on September 19, 2012, finding the existing approved South Coast 1-hour ozone SIP substantially inadequate to provide for attainment of the revoked 1-hour ozone standard by the applicable attainment date of November 15, 2010, in response to the decision of the Ninth Circuit Court of Appeals in *Association of Irrigated Residents ("AIR"), et al, v. United States Environmental Protection Agency, et al., 686 F. 2d 668* (amended January 12, 2012). A 1-hour Ozone SIP demonstrating attainment with the revoked 1-hour ozone standard is due to the U.S. EPA within 12 months after the effective date of the final SIP call; and

**WHEREAS**, EPA also published a proposed action on September 19, 2012, withdrawing its approval of, and then disapproving, the vehicle miles travelled (VMT) emissions offset demonstrations in the 2003 1-hour ozone SIP and the 2007 8-hour ozone SIP, also in response to the same *AIR v. EPA* decision. Revised VMT emissions offset demonstrations for the 1-hour and 8-hour ozone standards are required to be submitted to EPA; and

**WHEREAS**, the 2012 South Coast Air Quality Management Plan (2012 AQMP) is being prepared to comply with these above-referenced requirements, by the South Coast Air Quality Management District (SCAQMD), in conjunction with the California Air Resources Board (CARB), and the Southern California Association of Governments (SCAG), and the U.S.EPA; and

**WHEREAS**, SCAG is responsible, pursuant to Section 40460(b) of the California Health and Safety Code, for preparing and approving, those portions of the 2012 AQMP for the South Coast Air Basin, which relate to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies; and

**WHEREAS**, SCAG is also required, pursuant to Section 40460(b) of the California Health and Safety Code, to analyze and provide emissions data related to its planning responsibilities; and

**WHEREAS**, pursuant to this authority, SCAG prepared a “Regional Transportation Strategy and Control Measures” as it relates to air quality, to be included as Appendix IV-C to the 2012 AQMP, and attached herein as Exhibit “A” (hereinafter referred to as “Appendix IV-C”). Specifically, Appendix IV-C provides an overview of the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); a list of committed Transportation Control Measures (TCMs); and, pursuant to Clean Air Act requirements, an analysis of reasonably available (transportation) control measures (RACM Analysis); and

**WHEREAS**, Appendix IV-C was developed in consultation with Federal, State and local transportation and air quality planning agencies and other stakeholders, including the four county transportation commissions in the South Coast Air Basin, namely, Los Angeles County Metropolitan Transportation Authority, the Riverside County Transportation Commission, the Orange County Transportation Authority and the San Bernardino Associated Governments; and

**WHEREAS**, in accordance with the approval of SCAG’s Energy and Environment Committee on June 7, 2012, a draft of Appendix IV-C was distributed to SCAQMD and released for public review and comment as part of the release of the Draft 2012 AQMP. The public comment period concluded on August 31, 2012, and public comments relating to Appendix IV-C have been responded to and incorporated into SCAQMD’s response to comment document, and did not result in any substantive changes to the 2012 AQMP; and

**WHEREAS**, SCAQMD released for public review a revised Draft 2012 AQMP on September 7, 2012. While there are no changes to Appendix IV-C as part of the revised Draft 2012 AQMP, Appendix IV-C is currently under this second round of public review which is scheduled to end on November 12, 2012. Any additional comments received will be responded to and will be incorporated into the Final Appendix IV-C as appropriate as part of the Final 2012 AQMP.

**NOW, THEREFORE, BE IT RESOLVED**, by the Regional Council of the Southern California Association of Governments as follows:

1. Subject to the conclusion of the public comment period for the revised Draft 2012 AQMP, the Regional Council hereby approves and transmits to SCAQMD Appendix IV-C, attached hereto as Exhibit A, including related staff findings and incorporating all of the foregoing recitals as SCAG's portion of the 2012 AQMP, which includes the 24-hour PM2.5 SIP, the 1-hour ozone SIP, and the VMT offset demonstration.
2. The Regional Council hereby directs that if additional comments regarding Appendix IV-C are received before the conclusion of the public comment period, that staff appropriately respond and include as part of the Final Appendix IV-C to be transmitted to SCAQMD.

**PASSED, APPROVED AND ADOPTED** by the Regional Council of the Southern California Association of Governments at a regular meeting this 1<sup>st</sup> day of November, 2012.



Hon. Glen Becerra  
President, SCAG  
Councilmember, City of Simi Valley

Attested by:



Hasan Ikhata  
Executive Director

Approved as to Form:



Joan Africa  
Chief Counsel

**DRAFT FINAL 2012 SOUTH COAST  
AIR QUALITY MANAGEMENT PLAN  
APPENDIX IV-C**

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**Regional Transportation Strategy and  
Control Measures**

**November 2012**

## **Mission Statement**

*Under the guidance of the Regional Council and in collaboration with our partners, our mission is to facilitate a forum to develop and foster the realization of regional plans that improve the quality of life for Southern Californians.*

## SCAG Regional Council

### OFFICERS

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**First Vice President:** Greg Pettis, Cathedral City  
**Second Vice President:** Carl Morehouse, San Buenaventura  
**Immediate Past President:** Pam O'Connor, Santa Monica

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**Ventura County:** Linda Parks, Ventura County | Glen Becerra, Simi Valley | Bryan A. MacDonald, Oxnard | Carl Morehouse, San Buenaventura

**Tribal Government Representative:** Vacant

**Orange County Transportation Authority:** Jerry Amante, Tustin

**Riverside County Transportation Commission:** Mary Craton, Canyon Lake

**San Bernardino Associated Governments:** Alan Wapner, Ontario

**Ventura County Transportation Commission:** Keith Millhouse, Moorpark

**Transportation Corridors Agency:** Lisa Bartlett, Dana Point

**Ex-Officio:** Randall Lewis, Lewis Group of Companies

## **Executive Summary**

This Appendix describes the Southern California Association of Government's (SCAG) transportation strategy and transportation control measures (TCMs) to be included as part of the 2012 Air Quality Management Plan (AQMP) / PM2.5 State Implementation Plan (SIP) for the South Coast Air Basin. The transportation strategy and TCMs are based on SCAG's adopted 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program (FTIP) as amended which were developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders. The four County Transportation Commissions (CTCs) in the South Coast Air Basin, namely Los Angeles County Metropolitan Transportation Authority, Riverside County Transportation Commission, Orange County Transportation Authority and the San Bernardino Associated Governments, were actively involved in the development of the regional transportation measures of this Appendix.

*The Regional Transportation Strategy and Transportation Control Measures* portion of the 2012 AQMP/SIP consists of the following three related Sections.

### Section I. Linking Regional Transportation Planning to Air Quality Planning

As required by federal and state laws, SCAG is responsible for ensuring that the regional transportation plan, program, and projects are supportive of the goals and objectives of AQMPs/SIPs. SCAG is also required to develop demographic projections and regional transportation strategy and control measures for the AQMPs/SIPs.

As the Metropolitan Planning Organization (MPO), SCAG develops the RTP/SCS every four years. The RTP/SCS is a long-range regional transportation plan that provides a vision for transportation investments throughout the SCAG region. The 2012-2035 RTP/SCS also integrates land use and transportation planning to achieve regional greenhouse gas (GHG) reduction targets set by the California Air Resources Board (ARB) pursuant to SB375.

SCAG also develops the biennial FTIP. The FTIP is a multimodal list of capital improvement projects to be implemented over a six year period. The FTIP implements the programs and projects in the RTP/SCS.

### Section II. Regional Transportation Strategy and TCMs

The SCAG region faces daunting mobility, air quality, and transportation funding challenges. Under the guidance of the goals and objectives adopted by SCAG's Regional Council, the 2012-2035 RTP/SCS was developed to provide a blueprint to integrate land use and transportation strategies to help achieve a coordinated and balanced regional transportation system. The 2012-2035 RTP/SCS represents the culmination of more than two years of work involving dozens of public agencies, 191 cities, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations. The 2012-2035 RTP/SCS was formally adopted by the SCAG Regional Council on April 4, 2012.

The 2012-2035 RTP/SCS contains a host of improvements to every component of the regional multimodal transportation system including:

- Active transportation
- Transportation demand management (TDM)
- Transportation system management (TSM)
- Transit
- Passenger and high-speed rail
- Goods movement
- Aviation and airport ground access
- Highways
- Arterials
- Operations and maintenance

Included within these transportation system improvements are projects that reduce vehicle use or changing traffic flow or congestion conditions (“TCMs”). TCMs include the following three main categories of transportation improvement projects and programs:

- High occupancy vehicle (HOV) measures,
- Transit and systems management measures, and
- Information-based transportation strategies.

New to this cycle of the RTP is the inclusion of the SCS as required by SB 375. The primary goal of the SCS is to provide a vision for future growth in Southern California that will decrease per capita GHG emissions from passenger vehicles. However, the strategies contained in the 2012-2035 RTP/SCS will produce benefits for the region far beyond simply reducing GHG emissions. The SCS strives to integrate the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas on existing main streets, in downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. In addition, SCAG is a strategic partner in a regional effort to accelerate fleet conversion to near-zero and zero-emission transportation technologies. A significant expansion of alternative-fuel infrastructure is needed throughout the region to accommodate the anticipated increase in alternative fueled vehicles.

### Section III. Reasonably Available Control Measure Analysis

As required by the Federal Clean Air Act (CAA), a reasonably available control measure (RACM) analysis must be included as part of the overall control strategy in the AQMP/SIP to ensure that all potential control measures are evaluated for implementation and that justification is provided for those measures that are not implemented. Appendix IV-C contains the TCM RACM component for the South Coast PM<sub>2.5</sub> control strategy. In accordance with EPA procedures, this analysis considers TCMs in the 2012-2035 RTP/SCS, measures identified by the CAA, and relevant measures adopted in other non-attainment areas of the country.

Based on this comprehensive review, it is determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all TCM RACM. None of the candidate measures reviewed and determined to be infeasible meets the criteria for RACM implementation.

## **Section I. Linking Regional Transportation Planning to Air Quality Planning**

### Federal and State Requirements

The air quality conformity requirements of the Federal CAA establish a need to integrate air quality planning and regional transportation planning. This integration presents the challenge of balancing the real need for improved mobility with the equally important goal of cleaner air. As the federally-designated MPO for the six-county Southern California region, SCAG is required by law to ensure that transportation activities “conform” to, and are supportive of, the goals of regional and state air quality plans to attain the National Ambient Air Quality Standards (NAAQS). In addition, SCAG is a co-producer, with the South Coast Air Quality Management District (AQMD), of the AQMP for the South Coast Air Basin. SCAG has the responsibility for the demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies, as well as analyzing and providing emissions data related to its planning responsibilities (California Health and Safety Code §40460).

### Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Federal Transportation Improvement Program (FTIP)

The SCAG Region is the largest metropolitan planning area in the United States, encompassing 38,000 square miles. The region is divided into 14 subregions and is one of the largest concentrations of population, employment, income, business, industry and finance in the world. The six-county SCAG Region is home to more than 18 million people, nearly half of the population of the state of California.

Federal and state regulations require SCAG, as the Regional Transportation Planning Agency and MPO, to develop an RTP every four years in order for our region's transportation projects to qualify for federal and state funding. The RTP is updated to reflect changes in trends, progress made on projects, and to adjust the growth forecast for population changes. The long-range transportation plan provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project out over a 20-year period, the RTP considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address our mobility needs.

The SCS is a newly required element of the RTP. The SCS integrates land use and transportation strategies that will achieve ARB greenhouse gas emissions reduction targets. According to SB 375, “The Sustainable Communities Strategy shall:

1. identify the general location of uses, residential densities, and building intensities within the region;
2. identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth;
3. identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region;

4. identify a transportation network to service the transportation needs of the region;
5. gather and consider the best practically available scientific information regarding resource areas and farmland in the region;
6. consider the state housing goals specified in Sections 65580 and 65581;
7. set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state board;
8. allow the regional transportation plan to comply with the federal Clean Air Act."

The RTP/SCS was developed through a collaborative process, guided by the SCAG Regional Council and its Policy Committees and Sub-committees, the Plans & Programs Technical Advisory Committee, numerous task forces, CTCs, subregions, local governments, state and federal agencies, environmental and business communities, tribal governments, non-profit groups, as well as the general public. The RTP/SCS constitutes the Regional Transportation Strategy and Control Measures for the AQMP.

SCAG is also responsible for developing a biennial short-term (six year planning horizon) FTIP. SCAG develops the FTIP in partnership with the CTCs of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, and Caltrans Districts 7, 8, 11, and 12. The FTIP is a multimodal list of capital improvement projects to be implemented over a six-year period. The FTIP identifies specific funding sources and fund amounts for each project. It is prioritized to implement the region's overall strategy for providing mobility and improving both the efficiency and safety of the transportation system, while supporting efforts to attain federal and state air quality standards for the region by reducing transportation related air pollution. The FTIP must include all federally funded transportation projects in the region, as well as all regionally significant transportation projects for which approval from federal funding agencies is required, regardless of funding source. The FTIP is developed to incrementally implement the programs and projects in the RTP. TCMs that are committed to in the applicable SIP are derived from the first two years of the prevailing FTIP.

## Section II. Regional Transportation Strategy and TCMs

### Introduction

The 2012-2035 RTP/SCS is a long-range regional transportation plan that provides a blueprint to integrate land use and transportation strategies to help achieve a coordinated and balanced regional transportation system. Transportation projects in the SCAG region must be included in the RTP/SCS in order to receive federal funding. The 2012-2035 RTP/SCS is comprised of the following elements: (1) a policy element that presents an overview of the challenges facing the region; the RTP/SCS goals, policies and performance outcomes; (2) the SCS, which includes land use policies and forecasted future growth and land use for the region; (3) an action element that describes the transportation investments and programs necessary to implement the Plan and performance measures to determine how the Plan performs; and (4) the financial element that summarizes the cost of Plan implementation constrained by a realistic projection of available revenues and provides recommendations for the allocation of funds.

The 2012-2035 RTP/SCS represents the culmination of more than two years of work involving dozens of public agencies, 191 cities, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations, and was founded on a broad-based public outreach effort. The implementation of one of the most comprehensive and coordinated public participation plans ever undertaken by SCAG is documented in the 2012-2035 RTP/SCS, Public Participation and Consultation Appendix<sup>1</sup>.

The 2012-2035 RTP/SCS was formally adopted by the SCAG Regional Council on April 4, 2012 and submitted for approval to the federal agencies. The 2012-2035 RTP/SCS constitutes the transportation control strategy portion of the 2012 AQMP. A full, illustrative list of the 2012-2035 RTP/SCS projects can be found in the Project List Appendix of the 2012-2035 RTP/SCS. (See <http://rtpscs.scag.ca.gov/Pages/2012-2035-RTP-SCS.aspx>)

### Key Planning Challenges

The challenges facing the region's future are daunting:

**Mobility Challenges:** The region's roadways are the most congested in the nation, resulting in over three million hours wasted each year sitting in traffic. Traffic relief is critical, even more so in the region's current economic situation. By failing to adequately address congestion in the Region, we have foregone jobs - every 10 percent decrease in congestion can bring an employment increase of about 132,000 jobs.

**Air Quality Challenges:** While Southern California is a leader in reducing emissions and ambient levels of air pollutants are improving, the SCAG region continues to have the worst air quality in the nation, and air pollution causes thousands of premature deaths every year, as well as other serious adverse health effects. The South Coast Air Basin has the worst air quality of the four air basins contained in the SCAG region.

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<sup>1</sup> [http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP\\_PublicParticipation.pdf](http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PublicParticipation.pdf)

**Funding Need:** Of all the challenges facing the transportation system today, there is perhaps none more critical than funding. With the projected growth in population, employment, and demand for travel, the costs of our multimodal transportation needs surpass projected revenues available from our historic transportation funding source - the gas tax. State and federal gas taxes have not changed in nearly 20 years. Yet, highway construction costs have grown by over 80 percent. The region must consider ways to stabilize existing revenue sources and supplement them with reasonably available new sources.

Regional Goals and Policies: To Realize a Sustainable Future

To guide development of the projects, programs, and strategies, SCAG's Regional Council adopted goals and objectives that help carry out the 2012-2035 RTP/SCS vision which encompasses three principles: mobility, economy, and sustainability. The regional goals reflect the wide-ranging challenges facing transportation planners and decision-makers in achieving the RTP/SCS vision. The goals demonstrate the need to balance many priorities in the most cost-effective manner. SCAG's Regional Council adopted the following goals as part of the 2012-2035 RTP/SCS.

- Align the plan investments and policies with improving regional economic development and competitiveness
- Maximize mobility and accessibility for all people and goods in the region
- Ensure travel safety and reliability for all people and goods in the region
- Preserve and ensure a sustainable regional transportation system
- Maximize the productivity of our transportation system
- Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking)
- Actively encourage and create incentives for energy efficiency, where possible
- Encourage land use and growth patterns that facilitate transit and non-motorized transportation
- Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies

The six 2012-2035 RTP/SCS guiding policies below help focus future investments on the best-performing projects and strategies that seek to preserve, maintain, and optimize the performance of the existing system.

- 1) Transportation investments shall be based on SCAG's adopted regional Performance Indicators
- 2) Ensuring safety, adequate maintenance, and efficiency of operations on the existing multimodal transportation system should be the highest RTP/SCS priorities for any incremental funding in the region
- 3) RTP/SCS land use and growth strategies in the RTP/SCS will respect local input and advance smart growth initiatives
- 4) Transportation demand management (TDM) and non-motorized transportation will be focus areas, subject to Policy 1

- 5) HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy 1
- 6) Monitoring progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan

### Transportation Investments

The RTP/SCS contains a host of improvements to the regional multimodal transportation system. These improvements include closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of our transportation system where there is room to grow in order to provide the region with the mobility it needs.

**Active Transportation Component:** \$6.7 billion will be invested in various active transportation strategies to increase bikeways in the SCAG region from 4,315 miles to 10,122 miles, bring significant amount of sidewalks into compliance with the Americans with Disabilities Act (ADA), safety improvements, and various other strategies.

**Transportation Demand Management (TDM) Component:** \$4.5 billion will be invested in various TDM strategies to incentivize drivers to reduce solo driving: (1) Increase carpooling and vanpooling; (2) Increase the use of transit, bicycling, and walking; (3) Redistribute vehicle trips from peak periods to non-peak periods by shifting work times/days/locations; (4) Encourage greater use of telecommuting; and (5) Other “first mile/last mile” strategies to allow travelers to easily connect to and from transit service at their origin and destination. These strategies include the development of mobility hubs around major transit stations, the integration of bicycling and transit through folding-bikes-on-buses programs, triple bike racks on buses, and dedicated racks on light and heavy rail vehicles.

**Transportation System Management (TSM) Component:** \$7.6 billion will be invested in various TSM strategies to enhanced incident management, advanced ramp metering, traffic signal synchronization, advanced traveler information, improved data collection, universal transit fare cards (Smart Cards), and Transit Automatic Vehicle Location (AVL) to increase traffic flow and reduce congestion.

**Transit Component:** A total of \$55.0 billion will be invested in (1) bus rapid transit (BRT) - new BRT routes, extensions, and/or service enhancements in Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties; (2) light rail transit - new light rail and commuter rail routes/extensions in Los Angeles and San Bernardino Counties; (3) heavy rail transit – heavy rail extension in Los Angeles County; and (4) bus - new and expanded bus service in Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties.

**Passenger and High-Speed Rail Component:** A total of \$51.8 billion will be invested in (1) commuter rail - Metrolink extensions in Riverside County and Metrolink system-wide improvements to provide higher speeds; and (2) high speed rail - improvements to the Los Angeles to San Diego (LOSSAN) Rail Corridor with an ultimate goal of providing San Diego-Los Angeles express service in under two hours, and Phase I of the California High-Speed Train (HST) project that would provide high-speed service from the Kern County line to Anaheim via

L.A. Union Station with stops in Palmdale, San Fernando Valley, L.A. Union Station, Norwalk and Anaheim.

**Goods Movement (includes Grade Separations) Component:** \$48.4 billion will be invested in various goods movement strategies including Port access improvements, freight rail enhancements, grade separations, truck mobility improvements including an East-West Freight Corridor, intermodal facilities, and support of emission-reduction strategies such as the deployment of commercially available lower-emission trucks and locomotives in the near term while taking critical steps (including technology demonstration projects) toward the phased implementation of a zero- and near-zero emission freight system.

**Aviation and Airport Ground Access Component:** As included in their respective modal investments, substantial investment will be made in various airport ground access improvements including rail extensions and improvements to provide easier access to airports, and new express bus service from remote terminals to airports.

**Highways Component:** \$64.2 billion will be invested in (1) toll facilities - closure of critical gaps in the highway network to provide access to all parts of the region (\$27.3 billion); (2) High-Occupancy Vehicle (HOV)/High-Occupancy Toll (HOT) - closure of gaps in the HOV lane network and the addition of freeway-to-freeway direct HOV connectors to complete Southern California's HOV network and a connected network of Express/HOT lanes (\$20.9 billion); and (3) mixed flow – interchange improvements to and closures of critical gaps in the highway network to provide access to all parts of the region (\$16.0 billion).

**Arterials Component:** \$22.1 billion will be invested in various arterial improvements including spot widening, signal prioritization, driveway consolidations and relocations, grade separations at high-volume intersections, new bicycle lanes, and other design features such as lighting, landscaping, and modified roadway, parking, and sidewalk widths.

**Operations and Maintenance Component:** \$216.9 billion will be invested in the operations and maintenance of transit (\$139.3 billion), highways (\$56.7 billion), and arterials (\$20.9 billion) to preserve our multimodal system in a good state of repair.

#### Financial Plan

The 2012–2035 RTP/SCS financial plan identifies how much money is available to support the region's transportation investments. The plan includes a core revenue forecast of existing local, state, and federal sources along with funding sources that are reasonably available over the time horizon of the RTP/SCS. These new sources include adjustments to state and federal gas tax rates based on historical trends and recommendations from two national commissions (National Surface Transportation Policy and Revenue Study Commission and National Surface Transportation Infrastructure Financing Commission) created by Congress, further leveraging of existing local sales tax measures, value capture strategies, potential national freight program/freight fees, as well as passenger and commercial vehicle tolls for specific facilities. Reasonably available revenues also include innovative financing strategies, such as private equity participation. In accordance with federal guidelines, the plan includes strategies for ensuring the availability of these sources.

### Sustainable Communities Strategy

Under SB 375, the primary goal of the SCS is to provide a vision for future growth in Southern California that will decrease per capita greenhouse gas emissions from automobiles and light trucks. This leads to strategies that can help reduce per capita vehicle miles traveled over the next 25 years. The strategies contained in the 2012–2035 RTP/SCS will produce benefits for the region far beyond simply reducing GHG emissions. Because it is the latest refinement of an evolving regional blueprint that SCAG began in 2000, the 2012–2035 RTP/SCS will help the region contend with many ongoing issues across a wide range of concerns, including better placemaking, lower cost to taxpayers and families, benefits to public health and environment, greater responsiveness to changing demographics and housing markets, and improved access and mobility.

The 2012–2035 RTP/SCS was built primarily from local General Plans and input from local governments using the Local Sustainability Planning Tool, from the subregional COGs and from the County Transportation Commissions. A review of local plans and subregional strategies points to the common ground that is inherent in SCAG’s 2008 Advisory Land Use Policies. The advisory land use policies are a foundation for the overall regional land use development pattern:

- Identify regional strategic areas for infill and investment – Identify strategic opportunity areas for infill development of aging and underutilized areas and increased investment in order to accommodate future growth.
- Structure the plan on a three-tiered system of centers development – Identify strategic centers based on a three-tiered system of existing, planned, and potential, relative to transportation infrastructure.
- Develop “complete communities” – Create mixed-use districts, or “complete communities,” in strategic growth areas through a concentration of activities with housing, employment, and a mix of retail and services, located in close proximity to each other.
- Develop nodes on a corridor – Intensify nodes along corridors with people-scaled, mixed-use developments.
- Plan for additional housing and jobs near transit – Support and improve transit use and ridership by creating pedestrian-friendly environments and more compact development patterns in close proximity to transit.
- Plan for a changing demand in types of housing – Address shifts in the labor force that will likely induce a demand shift in the housing market for additional development types such as multifamily and infill housing in central locations, which will appeal to the needs and lifestyles of these large populations.
- Continue to protect stable, existing single-family areas – Continue to protect stable, existing single-family neighborhoods as future growth and a more diverse housing stock are in infill locations near transit stations.
- Ensure adequate access to open space and preservation of habitat – Ensure access to open space and habitat preservation despite competing quality-of-life demands driven by growth, housing and employment needs, and traditional development patterns.

- Incorporate local input and feedback on future growth – Continue public outreach efforts and incorporate local input through public workshops, scenario planning, and stakeholder outreach.

These policies have evolved over time and serve as the basis for SCAG’s Compass Blueprint, a regional voluntary program that offers innovative planning tools, creative strategies, and collaborative partnerships to all local governments within the region. Since its inception, Compass Blueprint has supported local demonstration projects that seek to improve mobility for all residents, foster livability in all communities, enable prosperity for all people, and promote sustainability for future generations.

The SCS strives to integrate the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint demonstration projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures. The RTP/SCS fully integrates the two subregional SCSs prepared by the Gateway Cities and Orange County Council of Governments.

In addition to Compass Blueprint, cities and counties within the SCAG region continue to implement their own local land use and transportation projects that support the goals of the 2012–2035 RTP/SCS.

To achieve the goals of the 2012–2035 RTP/SCS, public agencies at all levels of government may implement a wide range of strategies that focus on four key areas:

- A Land Use growth pattern that accommodates the region’s future employment and housing needs and protects sensitive habitat and natural resource areas;
- A Transportation Network that consists of public transit, highways, local streets, bikeways, and walkways;
- Transportation Demand Management (TDM) measures that reduce peak-period demand on the transportation network; and
- Transportation System Management (TSM) measures that maximize the efficiency of the transportation network.

In addition, SCAG is a strategic partner in a regional effort to accelerate fleet conversion to zero- and near-zero emission transportation technologies. SCAG’s policy with regard to alternative fuels is technology neutral and does not favor any one technology over any other. To accommodate the anticipated increase in alternative fueled vehicles, a significant expansion of infrastructure is needed throughout the region, among other preparedness steps.

SB 375 provides incentives in the form of CEQA streamlining to encourage community design that supports reduction in per capita GHG emissions. Generally, two types of projects are eligible for streamlined CEQA review once a compliant RTP/SCS has been adopted: (1) residential/mixed-use projects (consistent with the SCS) or (2) a Transit Priority Project (TPP).

Regional Transportation Emissions

Based on the data generated from SCAG’s Regional Travel Demand Model (e.g., traffic volumes, vehicle speeds, transit ridership, etc.), an estimate of emissions associated with on-road mobile sources can be generated using CARB’s emission factor model (EMFAC). Through this process, future emissions from on-road mobile sources can be compared for the regional transportation system assuming implementation of the RTP/SCS versus a baseline case without RTP/SCS implementation. It is generally understood that potential future improvements in air quality deriving from the RTP/SCS will likely be much smaller, since motor vehicle emissions have and will continue to be substantially reduced through technology (i.e., emission standards for new engines and in-use standards for existing fleets). Table 1 below compares VOC (ROG), NOx, and PM2.5 emissions between implementation of the 2012-2035 RTP/SCS and the baseline without the regional transportation strategy for 2014 and 2035.

**Table 1 Regional Transportation Emissions (annual average) (tons per day) \***

	VOC (ROG)		NOx		PM <sub>2.5</sub> **	
	2014	2035	2014	2035	2014	2035
<b>2012 RTP/SCS</b>	137.5	70.9	285.9	119.6	15.2	14.2
<b>2012 RTP Baseline</b>	137.6	72.8	285.5	124.8	15.2	15.6
<b>RTP/SCS Reduction</b>	-0.1	-1.9	-0.4	-5.2	0.0	-1.4

Note: \* Calculated with EMFAC2007; \*\* Does not include fugitive dust calculations

Transportation Control Measures

TCMs are measures that are specifically identified and committed to in the applicable implementation plan that are either one of the types listed in CAA section 108, or any other measures 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. Vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs. TCMs in this plan include the following three main categories of transportation improvement projects and programs:

- High occupancy vehicle (HOV) measures,
- Transit and systems management measures, and

- Information-based transportation strategies.

The 2012-2035 RTP/SCS includes TCM type projects throughout the entire Plan horizon (i.e., 2035) and are all part of the regional transportation strategy for the 2012 South Coast PM2.5 AQMP. Those TCM type projects which have funding programmed for right of way or construction in the first two years of the prevailing FTIP are considered committed for air quality planning purposes in the applicable SIP. Attachment A of this Appendix illustrates the currently committed TCMs that are derived from the TCM projects of the 2011 FTIP, as amended.

**TCM Emissions Reduction Benefits** To estimate the emission benefits of TCMs, the socio-economic data variables of the 2012-2035 RTP/SCS were held constant while the transportation network was modified to account for the TCMs in the Plan (both TCM-type projects and committed TCMs). In other words, the TCM emissions reduction benefits are the difference between the 2012-2035 RTP/SCS which includes TCMs and the AQMP baseline which is defined as RTP minus TCMs. It should be noted that this analysis is done for illustrative purposes as the regional transportation strategy is appropriately viewed on a systems-level basis, and not by its components since each of the individual transportation improvements and strategies affect each other and the system.

Compared to previous AQMPs/SIPs, potential future improvements in air quality deriving from TCMs is consistently diminishing for two reasons. On one hand, motor vehicle emissions have and will continue to be substantially reduced through technology. On the other hand, most of the TCM projects in the South Coast Air Basin were adopted into the SIP to meet the one-hour ozone standard by 2010 and have already been implemented. Thus, the emission reductions associated with these projects are now included in the baseline emissions and no longer show up in the TCM benefit values. Table 2 shows the results of the TCM modeling analysis for years 2014, 2019, and 2023.

**Table 2 TCM Emissions (annual average) (tons per day) \***

	VOC (ROG)			NOx			PM <sub>2.5</sub> **		
	2014	2019	2023	2014	2019	2023	2014	2019	2023
<b>2012 RTP/SCS</b>	137.5	110.7	93.7	285.9	194.1	157.7	15.2	14.8	13.5
<b>RTP/SCS without TCM</b>	137.8	111.1	94.4	286.6	195.5	159.2	15.3	15.1	13.9
<b>TCM Reduction</b>	-0.3	-0.4	-0.7	-0.7	-1.4	-1.5	-0.1	-0.3	-0.4

Note: \* Calculated with EMFAC2007; \*\* Does not include fugitive dust calculations

### **Section III. Reasonably Available Control Measure Analysis**

#### Introduction

Clean Air Act Section 172(c)(1) requires SIPs to provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable. Guidance on interpreting RACM requirements in the context of the 1990 Amendments was set forth in the General Preamble (57 FR 13498, 13560) in 1992. In the General Preamble, U.S. Environmental Protection Agency (EPA) interpreted section 172(c)(1) as imposing a duty on States to consider all available control measures and to adopt and implement measures that are reasonably available for implementation in a specific nonattainment area. It also retained an earlier interpretation of RACM that it would not be reasonable to require the implementation of measures that do not advance the date for attainment.

With regard to TCMs, EPA revised earlier guidance by indicating that it is inappropriate to presume that all Section 108(f)(1)(A) measures of the CAA are available in all nonattainment areas. Instead, States should consider Section 108(f)(1)(A) measures as potential options that are not exhaustive, but indicative of the types of measures that should be considered. In addition, any measure identified as reasonably available during the public comment period should also be considered for implementation. EPA indicated that States could reject measures as not reasonably available for reasons related to local conditions. States are required to justify why available measures were not considered RACM and not adopted in the SIP.

To meet the RACM requirements articulated in the EPA guidance described above, this RACM analysis was performed using several steps. First is a description of the process by which SCAG and related transportation agencies in the South Coast Air Basin identify, review, and make enforceable commitments to implement TCMs. Second is the assembly and review of a list of control measures recently implemented in other ozone nonattainment areas. This effort involved a review of measures implemented in California nonattainment areas as well as those located in Arizona, Colorado, Georgia, New York, Texas, and Washington D.C., and the organization of those measures in the 16 categories specified in CAA Section 108(f). The third step is to determine RACM measures by contrasting the list of candidate measures with measures implemented to date in the South Coast Air Basin, as well as any new commitments in the current AQMP. The fourth step is to provide a reasoned justification for any of the available measures that have yet to be implemented. These justifications must address criteria described in the above-cited guidance.

#### SCAG RACM/TCM Development Process

While the SCAG Region has an extensive, systematic TCM development program continually updated through the FTIP process, areas are obligated during SIP preparation to evaluate TCMs and determine whether they qualify as RACM.

The RACM process relies predominantly on the continuous updating and addition process for TCMs in the South Coast Air Basin. The TCM process was established for the South Coast Air Basin by replacing a process that developed TCMs each time a SIP was produced with a

continuous ongoing TCM process. This process continues to govern the selection and implementation of TCMs today. TCMs are continuously identified and reviewed throughout the transportation planning process. SCAG's ongoing public outreach effort, including an involved interagency input process via the TCWG, helps ensure that the process to identify and review TCMs is robust, inclusive, and comprehensive. Development of TCMs arises from multiple processes and multiple sources, which include CTCs, subregional agencies, task forces, committees, and the public. These funding and scheduling incentives ensure that TCMs are developed, sponsored, and clearly identified throughout the process.

#### Assembly and Review of Candidate RACM

EPA and related court decisions have maintained that TCMs considered RACM must be measures that 1) advance the attainment date, typically by at least one year and 2) are technologically and economically feasible. Measures must pass both the advance attainment and technical/economic feasibility tests to be deemed RACM.

U.S. EPA guidance documents provide help in identifying the type of measures to be considered. CAA Section 108(f)(1)(A) provides a list of sixteen categories of TCMs that are potential options that should be considered indicative types of control measures:

- i. Programs for improved use of public transit;*
- ii. Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;*
- iii. Employer-based transportation management plans, including incentives;*
- iv. Trip-reduction ordinances;*
- v. Traffic flow improvement programs that achieve emission reductions;*
- vi. Fringe and transportation corridor parking facilities, serving multiple occupancy vehicle programs or transit service;*
- vii. Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use;*
- viii. Programs for the provision of all forms of high-occupancy, shared-ride services, such as the pooled use of vans;*
- ix. 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;*
- x. 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;*
- xi. Programs to control extended idling of vehicles;*
- xii. Programs to reduce motor vehicle emissions, consistent with Title II of the Clean Air Act, which are caused by extreme cold start conditions;*
- xiii. Employer-sponsored programs to permit flexible work schedules;*
- xiv. 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;*

- xv. 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; and*
- xvi. 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.*

EPA guidance has emphasized that these sixteen measures are an illustrative, but not exhaustive list. Instead, TCMs need to be evaluated on an area-by-area basis to determine which are reasonably available. In addition to the measures listed above, the 1992 General Preamble of the CAA cite other sources to include TCMs that were a) suggested during public comments (e.g. at workshops, public hearings, in written comments, etc.); b) adopted in other nonattainment areas of the country; and c) specifically identified by the EPA (i.e. EPA TCM database, support documents for rulemaking, etc.).<sup>2</sup>

To develop a list of candidate RACM, SCAG performed a comprehensive review of available TCMs in California, as well as in other states. SCAG reexamined the candidate RACM identified during the comprehensive RACM analysis performed for the 2007 AQMP. Additionally, SCAG coordinated with other MPOs and air quality districts to identify measures that are being implemented in the following other nonattainment areas:

- **Maricopa County, Arizona:** Maricopa Association of Governments. Eight-Hour Ozone Resignation Request and Maintenance Plan for the Maricopa Nonattainment Area, February, 2009.
- **Bay Area, California:** Bay Area Air Quality Management District. Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard, October 24, 2001.
- **Sacramento, California:** Sacramento Metropolitan Air Quality Management District. Sacramento Regional 8-Hour Ozone Attainment and RFP Plan, December 19, 2008. EPA approval pending.
- **San Joaquin Valley, California:** San Joaquin Valley Air Pollution Control District. 2007 Ozone Plan, April 30, 2007.
- **Denver Metropolitan Area, Colorado:** North Front Range Metropolitan Organization. Denver Metro Area and North Front Range Ozone Action Plan, December 12, 2008.
- **Atlanta Metropolitan Area, Georgia:** Georgia Department of Natural Resources, Environmental Protection Division. Proposed Georgia's State Implementation Plan for the Atlanta 8-Hour Ozone Nonattainment Area, March 26, 2009. EPA approval pending.
- **New York Metropolitan Area, New York:** New York State Department of Environmental Conservation Ozone (8-Hour NAAQS) Attainment Demonstration for NY Metro Area, August 9, 2007.
- **Dallas-Fort Worth Area, Texas:** Texas Commission on Environmental Quality. Revisions to the State of Texas Air Quality Implementation Plan for the Control of Ozone

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<sup>2</sup> Seitz, John S. (December 2, 1999). Memo from John Seitz: Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas. Available at: <http://www.epa.gov/ttn/oarpg/t1/memoranda/revracm.pdf>.

Air Pollution, Dallas-Forth Worth 8-Hour Ozone Nonattainment Area, December 7, 2011. EPA approval pending.

- **Houston-Galveston Area, Texas:** Texas Commission on Environmental Quality. Revisions to the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution, Houston-Galveston-Brazoria 1997 8-Hour Ozone Nonattainment Area, March 10, 2010. EPA approval pending.
- **Washington D.C.:** Metropolitan Washington Council of Governments (MWCOG). Plan to Improve Air Quality in the Metropolitan Washington, DC-MD-VA Region: State Implementation Plan (SIP) for 8-Hour Ozone Standard, May 23, 2007.

Additionally, TCMs were discussed and reviewed at numerous TCWG meetings as part of the 2011 FTIP, 2012-2035 RTP/SCS, and 2012 AQMP. Further, SCAG has an extensive and robust public participation process for the development of the RTP/FTIP through ongoing public meetings, and technical, advisory, and policy committees. These groups generally meet on a monthly basis and provide explicit opportunities for the public to participate and contribute.

In summary, SCAG performed the RACM analysis based on information reviewed from the following sources:

- CAA Section 108(f)(1)(A)
- 2007 South Coast AQMP RACM Analysis
- Other nonattainment areas in California
- Other nonattainment areas outside California
- RTP/FTIP Updates
- Interagency Consultation (TCWG)

The candidate measures were reviewed to determine which can be considered RACM. As discussed above, the RACM TCM requirement consists of two core criteria that must be satisfied: 1) TCMs must advance attainment of the air quality standards; and 2) TCMs must be both technically and economically feasible. EPA has not provided specific definitions on these core criteria, but has preferred to allow flexibility in each region's determination.

In practice, agencies have based their determination of the first criteria on whether a measure or group of measures would help an area achieve attainment one year earlier than in the absence of the measure or group of measures. In other words, TCM implementation must significantly reduce emissions to facilitate attainment of the NAAQS one year earlier than without the TCMs. Considering the magnitude of the emissions reductions necessary to demonstrate attainment in the South Coast Air Basin, the implementation of TCMs is not expected to meet this criterion. Technical feasibility has been determined in terms of local factors, such as environmental impacts, availability of control measures, and ability to achieve the emission reductions. Project cost-effectiveness has been considered a determining factor to determine economic feasibility.

Determining RACM Measures

For this step of the RACM analysis, SCAG compared the list measures implemented within the South Coast Air Basin with those implemented in other areas. SCAG then organized measures, including candidate measures and those measures currently implemented in the region, according to the sixteen categories specified in Section 108(f)(1)(A) of the CAA. No formal requirement exists on how to organize TCMs. However, SCAG utilized this organization scheme as a way to highlight those measures that fall within the sixteen CAA categories, which are formally recognized as "TCMs" and subject to CAA and federal conformity requirements. SCAG found a small number of candidate measures that were not currently implemented in the region and not included in the 2007 AQMP RACM analysis. In addition, a new category titled "Other Measures and Programs" was added to the list of measures. This category includes TCMs that do not fall in any of the sixteen Section 108(f) categories. New measures that were in addition to those reviewed as part of the 2007 RACM analysis were highlighted in bold font as shown in Attachment B.

For this RACM analysis, SCAG also reviewed statewide and South Coast AQMD measures that have been adopted since the last RACM analysis. Although these measures are out of the realm of SCAG's funding authority, they are discussed below for completeness. Statewide mobile source measures are also covered in California RACM analysis completed for the latest ozone SIP revision for the South Coast Air Basin. Table 3 shows on-road TCMs and mobile source measures that were adopted by the ARB and are currently being implemented in the SCAG region.

**Table 3 Adopted California Transportation Control Measures**

<b>RACM</b>	<b>Implementing Nonattainment Area</b>	<b>Implemented in SCAG?</b>
California Diesel Fuel Regulation	ARB	Yes
On-Road Heavy-Duty Diesel Vehicles Regulation	ARB	Yes
California Reformulated Gasoline	ARB	Yes
Low Emission Vehicle Standards (LEV II)	ARB	Yes
Transportation Refrigeration Unit ATCM	ARB	Yes
School Bus Idling ATCM	ARB	Yes
Fleet Rule for Transit Agencies	ARB	Yes
Drayage Truck Regulation	ARB	Yes
Hybrid Truck and Bus Voucher Incentive Program	ARB	Yes
Clean Vehicle Rebate Project	ARB	Yes
Solid Waste Collection Vehicle Rule	ARB	Yes
Heavy-Duty Vehicle Inspection Program	ARB/BAR	Yes
Periodic Smoke Inspection Program	ARB/BAR	Yes
School Bus Retrofit Program	ARB/SCAQMD	Yes
Goods Movement Program/Proposition 1B	ARB/CTC/SCAQMD	Yes

### Reasoned Justification

The fourth step is to provide a reasoned justification for any of the available measures that have yet to be implemented or will not be implemented. In 1999, EPA issued a memorandum entitled “Guidance on the Reasonably Available Control Measures Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas.”<sup>3</sup> In this memorandum, EPA states that in order to determine whether a state has adopted all RACM necessary for attainment and as expeditiously as practicable, the state must explain why the selected implementation schedule is the earliest schedule based on the circumstances of the area. This indicated that States could reject measures as not reasonably available for reasons related to local conditions. In such cases, States are obligated to provide justification as to why potentially reasonable measures have not been adopted. Valid reasons for rejecting a measure include that it would not advance the attainment date, it is economically infeasible, or it is technologically infeasible.

The complete listing of all candidate measures evaluated for RACM determination is included in Attachment B. A “Measure Number” is assigned for each strategy for ease of discussion (not rank in priority). The “Description” column provides a brief description of the relevant measure in discussion. “Has It Been Implemented?” confirms whether the measure is currently implemented in the SCAG region. The final column “Reasoned Justification for Not Implementing” provides a reasoned justification for those measures that were not considered RACM. SCAG appropriately considered a number of factors that included technical and economic feasibility, enforceability, geographic applicability, and ability to provide emission reductions. Of the TCMs that were deemed candidate measures, none were found to meet the criteria for RACM implementation.

### Conclusion

CAA Section 172(c)(1) requires SIPs to provide for the implementation of all RACM as “expeditiously as practicable.” EPA and related court decisions have maintained that TCMs considered RACM must be measures that 1) advance the attainment date, typically by at least one year and 2) are technologically and economically feasible. Measures must pass both the advance attainment and technical/economic feasibility tests to be deemed RACM.

Based on a comprehensive review of TCM projects in other nonattainment areas or otherwise identified, it is determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all RACM. None of the candidate measures reviewed herein and determined to be infeasible meets the criteria for RACM implementation.

SCAG and the local transportation agencies have in place a comprehensive, formal process for identifying, evaluating, and selecting TCMs. The regular RTP, FTIP, and AQMP/SIP public update processes ensure that TCM identification and implementation is a routine consideration that helps SCAG and the AQMD demonstrate attainment of applicable NAAQS.

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<sup>3</sup> Seitz, John S. (December 2, 1999). *Memo from John Seitz: Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas*. Available at: <http://www.epa.gov/ttn/oarpg/t1/memoranda/revracm.pdf>

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
BALDWIN PARK	LAFA141	BALDWIN PARK METROLINK TRANSPORTATION CENTER. FUNDED THRU STIP AUGMENTATION CONSTRUCTION A TRANSPORTATION CENTER AND PARKING STRUCTURE AT THE BALDWIN PARK METROLINK STATION.	11/1/2014
FOOTHILL TRANSIT ZONE	LA0B311	PARK AND RIDE FACILITY TRANSIT ORIENTED NEIGHBORHOOD PROGRAM SAFETEA-LU # 341 (E-2006-BUSP-092) (E-2006-BUSP-173)	12/31/2013
GLENDALE	LA0G406	FAIRMONT AVE. PARK-N-RIDE FACILITY (83 PARKING SPACES) TO SERVE COMMUTERS USING SR-134, I-5. THE LOCATION OF THE PARK-N-RIDE IS FAIRMONT AVENUE AND SAN FERNANDO RD.	12/30/2013
LOS ANGELES COUNTY	LAF1514	EMERALD NECKLACE BIKE TRAIL PROJECT. DESIGN AND CONSTRUCT 1.1 MILES OF CLASS I BIKE PATH TO CONNECT DUARTE ROAD TO THE SAN GABRIEL RIVER BICYCLE TRAIL.	6/30/2013
LOS ANGELES COUNTY MTA	LA0G270	EXPANSION AND IMPROVEMENT TO EXISTING TRANSIT CENTER IN THE CITY OF PALMDALE. E2009-BUSP-137.	9/30/2013
LOS ANGELES COUNTY MTA	LA0F021	EXPOSITION LIGHT RAIL TRANSIT SYSTEM PHASE II – FROM CULVER CITY TO SANTA MONICA	12/31/2017
LOS ANGELES COUNTY MTA	LA29202W	MID -CITY TRANSIT CORRIDOR: WILSHIRE BLVD. FROM VERMONT TO SANTA MONICA DOWNTOWN- MID-CITY WILSHIRE BRT INCL. DIV. EXPANSION AND BUS ONLY LANE	12/31/2014
LOS ANGELES COUNTY MTA	LA0G194	ACQUIRE FOUR (4) ALTERNATE FUEL BUSES FOR THE CITY OF ARTESIA TO BE USED FOR NEW FIXED ROUTE SERVICE EARMARK ID #E2008-BUSP-0694	10/31/2012
LOS ANGELES COUNTY MTA	LA0C10	MID-CITY/EXPOSITION CORRIDOR LIGHT RAIL TRANSIT PROJECT PHASE I TO VENICE-ROBERTSON STATION	12/31/2012
LOS ANGELES COUNTY MTA	LA0G431	MULTI-MODAL TRANSIT CENTER AT CSUN TO INCLUDE PASSENGER LOADING AREAS AND BUS SHELTERS	10/1/2012
LOS ANGELES COUNTY MTA	LA974165	MACARTHUR PARK STATION IMPROVEMENTS INCLUDE DESIGN AND CONSTRUCTION OF A PLAZA TO ACCOMMODATE PUBLIC ACCESS (PEDESTRIAN ENTRANCES, WALKWAYS, BICYCLE FACILITIES) PPNO# 3417	12/30/2011
LOS ANGELES, CITY OF	LA0G155	LACRD – TRANSIT SIGNAL PRIORITY IN THE CITY OF LOS ANGELES.	02/28/2012

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
PASADENA	LAE3790	THE PASADENA ITS INTEGRATES 3 COMPONENTS; TRAFFIC SIGNAL COMMUNICATION AND CONTRL, TRANSIT VEHICLE ARRIVAL INFO AND PUBLIC PARKING AVAILABILITY INFO. SAFETEA-LU PRJ #3790 AND #399	6/30/2013
PICO RIVERA (PREVIOUSLY LEAD AGENCY WAS SGVCOG)	LA0C57	ACE/GATEWAY CITIES-CONSTRUCT GRADE SEP. AT PASSONS BLVD IN PICO RIVERA (& MODIFY PROFILE OF SERAPIS AV.)(PART OF ALAMEDA CORR EAST PROJ.)SAFETEA-LU HPP # 1666 (TCRP #54.3)	12/31/2012
ROLLING HILLS ESTATE	LAF1529	PALOS VERDES DRIVE NORTH BIKE LANES. CONSTRUCTION OF CLASS II BIKE LANE AND RELATED IMPROVEMENTS ON PALOS VERDES DRIVE NORTH	12/31/2013
SANTA CLARITA	LAF1424	MCBEAN REGIONAL TRANSIT CENTER PARK AND RIDE. PURCHASE LAND, DESIGN, AND CONSTRUCT A REGIONAL PARK-AND-RIDE LOT ADJACENT TO THE MCBEAN REGIONAL TRANSIT CENTER IN THE CITY OF SANTA CLARITA.	10/1/2013
WHITTIER	LA0G257	WHITTIER GREENWAY TRAILHEAD PARK. EXTENSION OF WHITTIER GREENWAY TRAIL FROM MILLS AVENUE TO 300 FEET EAST OF MILLS AVENUE ON CITY OWNED RIGHT-OF-WAY IN CONJUNCTION WITH THE CONSTRUCTION OF NEW TRAILHEAD PARK WITH A PARK AND RIDE PARKING LOT FOR NEARBY PUBLIC TRANSIT STOP. NEW 20 SPACE PARKING LOT WOULD BE CONSTRUCTED OF "GREEN" PERMEABLE PAVEMENT IN COMPLIANCE WITH NPDES REQUIREMENTS. INCLUDES THE INSTALLATION OF PARK AMENITIES, DRINKING FOUNTAIN FOR THE CONVENIENCE OF PEDESTRIAN AND BICYCLE PATRONS OF THE WHITTIER GREENWAY TRAIL. CONSTRUCTION OF NEW SIDEWALKS ALONG MILLS AVENUE TO PROVIDE WHITTIER GREENWAY TRAIL CROSSING CONNECTION AT THE SIGNALIZED INTERSECTION OF MILLS AVENUE AT LAMBERT ROAD.	9/30/2014
ARTESIA	LAF1607	SOUTH STREET PEDESTRIAN, BIKEWAY AND TRANSIT IMPROVEMENT. IMPROVE PEDESTRIAN ENVIRONMENT AND TRANSIT STOP LOCATIONS WITH LANDSCAPED MEDIANS, TRANSIT SHELTERS, BENCHES, SIDEWALK ENHANCEMENTS AND LIGHTING. CLOSE EXISTING BIKE LANE GAP.	10/1/2014
AVALON	LAF1501	COUNTY CLUB DRIVE BIKEWAY IMPROVEMENT PROJECT. CONSTRUCTION OF A 4-FOOT WIDE CLASS II BIKE LANE IN BOTH DIRECTIONS ALONG A ONE MILE SECTION OF COUNTRY CLUB DRIVE.	10/1/2013
AZUSA	LAF3434	AZUSA INTERMODAL TRANSIT CENTER. CONSTRUCT REGIONAL AZUSA INTERMODAL TRANSIT CENTER TO ACCOMMODATE EXISTING AND FUTURE PARKING DEMAND AND SUPPORT EFFECTIVE TRANSIT USE.	6/30/2015

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
BALDWIN PARK	LAE0076	CONSTRUCT ADD'L VEHICLE PARKING (200 TO 400 SPACES), BICYCLE PARKING LOT AND PEDESTRIAN REST AREA AT THE TRANSIT CENTER	12/31/2014
BALDWIN PARK	LAF1654	BALDWIN PARK METROLINK PEDESTRIAN OVERCROSSING. CONSTRUCT A PEDESTRIAN OVERCROSSING OVER BOGART AVE AND THE METROLINK LINE TO LINK THE STATION WITH VITAL BUS TRANSFER POINTS AND TO PROVIDE ACCESS TO PARKING OVERFLOW AREAS.	10/1/2015
BURBANK	LAF1502	SAN FERNANDO BIKEWAY. IMPLEMENT A CLASS I BIKEWAY ALONG SAN FERNANDO BLVD, VICTORY PLACE AND BURBANK WESTERN CHANNEL TO COMPLETE THE BURBANK LEG OF A 12 MILE BIKEWAY.	6/30/2014
CALTRANS	LA000358	ROUTE 5: – FROM ROUTE 134 TO ROUTE 170 HOV LANES (8 TO 10 LANES) (CFP 346)(2001 CFP 8355). (EA# 12180, 12181,12182,12183,12184, 13350 PPNO 0142F,151E,3985,3986,3987) SAFETEA LU # 570. CONSTRUCT MODIFIED IC @ I-5 EMPIRE AVE, AUX LNS NB & SB BETWEEN BURB	12/31/2014
CALTRANS	LA000548	ROUTE 10: FROM PUENTE TO CITRUS HOV LANES FROM 8 TO 10 LANES (C-ISTEA 77720) (EA# 117080, PPNO# 0309N)	2/12/2016
CALTRANS	LA0B875	ROUTE 10: HOV LANES FROM CITRUS TO ROUTE 57/210 – (EA# 11934, PPNO# 0310B)	3/15/2016
CALTRANS	LA0D73	ROUTE 5: LA MIRADA, NORWALK & SANTA FE SPRINGS-ORANGE CO LINE TO RTE 605 JUNCTION. WIDEN FOR HOV & MIXED FLOW LNS, RECONSTRUCT VALLEY VIEW (EA 2159A0, PPNO 2808). TCRP#42.2&42.1	12/1/2016
CALTRANS	LA000357	ROUTE 5: FROM ROUTE 170 TO ROUTE 118 ONE HOV LANE IN EACH DIRECTION (10 TO 12 LANES) INCLUDING THE RECONSTRUCTION OF THE I-5/SR-170 MIXED FLOW CONNECTOR AND THE CONSTRUCTION OF THE I-5/SR-170 HOV TO HOV CONNECTOR (CFP 345) (2001 CFP 8339; CFP2197).	12/31/2013
CALTRANS	LA01342	ROUTE 10: RT 10 FROM RT 605 TO PUENTE AVE HOV LANES (8+0 TO 8+2) (EA# 117070, PPNO 0306H) PPNO 3333 3382 AB 3090 REP (TCRP #40)	10/28/2013
CALTRANS	LA996134	ROUTE 5: RTE. 5/14 INTERCHANGE & HOV LNS ON RTE 14 – CONSTRUCT 2 ELEVATED LANES – HOV CONNECTOR (DIRECT CONNECTORS) (EA# 16800)(2001 CFP 8343) (PPNO 0168M)	5/24/2013
CLAREMONT	LAF1510	CLAREMONT PORTION OF THE CITRUS REGIONAL BIKEWAY. THIS PROJECT PROPOSES THE IMPLEMENTATION OF THE CLAREMONT PORTION OF THE CITRUS REGIONAL BIKEWAY UTILIZING BONITA AVENUE AND FIRST STREET AS PRIMARY CLASS II BIKE ROUTES.	10/1/2012

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
EL MONTE	LAF1504	EL MONTE: TRANSIT CYCLE FRIENDLY. EL MONTE PROPOSES TO IMPLEMENT THE 1ST PHASE OF THE EL MONTE BIKE-TRANSIT HUB COMPONENT (METRO BICYCLE TRANSPORTATION STRATEGIC PLAN) A COUNTYWIDE EFFORT TO IMPROVE BIKE FACILITIES	10/1/2013
LONG BEACH	LAE1296	LONG BEACH INTELLIGENT TRANSPORTATION SYSTEM	9/30/2012
LONG BEACH	LAF1530	BICYCLE SYSTEM GAP CLOSURES & IMPROVED LA RIVER BIKE PATH. PROJECT WILL CONSTRUCT PRIORITY CLASS I & III BICYCLE SYSTEM GAP CLOSURES IN LONG BEACH AND IMPROVE CONNECTION TO LA RIVER.	10/1/2014
LOS ANGELES COUNTY MTA	LA0D198	CRENSHAW TRANSIT CORRIDOR	12/31/2018
LOS ANGELES COUNTY MTA	LA0G010	REGIONAL CONNECTOR – LIGHT RAIL IN TUNNEL ALLOWING THROUGH MOVEMENTS OF TRAINS, BLUE, GOLD, EXPO LINES. FROM ALAMEDA / 1ST STREET TO 7TH STREET/METRO CENTER	12/31/2019
LOS ANGELES COUNTY MTA	LA0G154	LACRD – EL MONTE TRANSIT CENTER IMPROVEMENTS AND EL MONTE BUSWAY IMPROVEMENTS, INCLUDING BIKE LOCKERS, TICKET VENDING MACHINES AT EL MONTE BUSWAY STATIONS AND UP TO 10 BUS BAYS.	12/31/2012
LOS ANGELES COUNTY MTA	LA0G447	METRO PURPLE LINE WESTSIDE SUBWAY EXTENSION SEGMENT 1 – WILSHIRE/WESTERN TO FAIRFAX	12/31/2019
LOS ANGELES COUNTY MTA	LA0C8114	LA CITY RIDESHARE SERVICES; PROVIDE COMMUTE INFO, EMPLOYER ASSISTANCE AND INCENTIVE PROGRAMS THROUGH CORE & EMPLOYER RIDESHARE SERVICES & MTA INCENTIVE PROGRAMS. PPNO 9003	12/30/2016
LOS ANGELES COUNTY MTA	LA963542	ACQUISITION REVENUE VEHICLES – 2,513 CLEAN FUEL BUSES: LEASED VEH, FY02 (370) FY03 (30 HC) + FY04 (70 HC) + (200 ARTICS); FY05-FY10 TOTAL OF 1000 BUSES.	6/30/2014
LOS ANGELES COUNTY MTA	LAE0036	WILSHIRE/ VERMONT PEDESTRIAN PLAZA IMPROVEMENTS AND INTERMODAL PEDESTRIAN LINKAGES	2012
LOS ANGELES COUNTY MTA	LAE0195	DESIGN AND CONSTRUCT IMPROVED PEDESTRIAN LINKAGES BETWEEN LOS ANGELES PIERCE COLLEGE AND MTA’S RAPID BUS TRANSIT STOPS TO INCLUDE PASSENGER AMENITIES, 2007 CFP # F1658	10/1/2014

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
LOS ANGELES, CITY OF	LA0C8164	EXPOSITION BLVD RIGHT-OF-WAY BIKE PATH-WESTSIDE EXTENSION. DESIGN AND CONSTRUCTION OF 2.5 MILES OF CLASS 1 BIKEWAY, LIGHTING, LANDSCAPING & INTERSECTION IMPROVEMENTS. (PPNO# 3184)	2/2/2012
LOS ANGELES, CITY OF	LAF1704	DOWNTOWN L.A. ALTERNATIVE GREEN TRANSIT MODES TRIAL PROGRAM. OFFER SHARED RIDE-BICYCLE AND NEIGHBORHOOD ELECTRIC VEHICLE TRANSIT SERVICES TO LA CITY HALL AS AN ALTERNATIVE TO OVERCROWDED DASH SERVICE	6/27/2014
LOS ANGELES, CITY OF	LA002738	BIKEWAY/PEDESTRIAN BRIDGE OVER LA RIVER AT TAYLOR YARD CLASS I (CFP 738, 2077) (PPNO# 3156)	7/31/2015
LOS ANGELES, CITY OF	LA0B7330	SAN FERNANDO RD ROW BIKE PATH PHSE II – CONSTRUCT 2.75 MILES CLAS I FRM FIRST ST TO BRANFORD ST,ON MTA-OWND ROW PARLEL TO SAN FERNANDO RD. LINK CYCLSTS TO NUMEROUS BUS LNE. PPNO 2868.	1/30/2014
LOS ANGELES, CITY OF	LAF1450	ENCINO PARK-AND-RIDE FACILITY RENOVATION. RENOVATION OF THE ENCINO PARK-AND-RIDE FACILITY IN ORDER TO ADDRESS PHYSICAL AND STRUCTURAL DEFICIENCIES AND ADD CAPACITY TO THIS HEAVILY UTILIZED FACILITY. INCLUDES 50 NEW PARKING SPACES AND BIKE LOCKERS.	10/1/2013
LOS ANGELES, CITY OF	LAF1520	IMPERIAL HIGHWAY BIKE LANES. THIS PROJECT INVOLVES THE MODIFICATION OF THE MEDIAN ISLAND AND THE WIDENING OF IMPERIAL HIGHWAY ALONG 1000 FT EAST OF PERSHING DRIVE TO ACCOMMODATE BIKE LANES.	6/1/2014
LOS ANGELES, CITY OF	LAF1524	SAN FERNANDO RD. BIKE PATH PH. IIIA/IIIB – CONSTRUCTION. RECOMMEND PHASE IIIA- CONSTRUCTION OF A CLASS I BIKE PATH WITHIN METRO OWNED RAIL RIGHT-OF-WAY ALONG SAN FERNANDO RD. BETWEEN BRANFORD ST. AND TUXFORD ST INCL BRIDGE.	10/1/2015
LOS ANGELES, CITY OF	LAF1615	EASTSIDE LIGHT RAIL PEDESTRIAN LINKAGE. IMPROVE LINKAGES WITHIN 1/4 MILE OF METRO’S GOLD LINE LRT.	6/29/2012
LOS ANGELES, CITY OF	LAF1657	LOS ANGELES VALLEY COLLEGE (LAVC) BUS STATION EXTENSION. PROJECT WILL EXTEND THE ORANGE LINE STATION AT THE LA VALLEY COLLEGE BY PROVIDING A DIRECT PEDESTRIAN CONNECTION FROM THE STATION TO A NEW PEDESTRIAN ENTRANCE TO LAVC.	10/1/2013
LOS ANGELES, CITY OF	LAF1708	HOLLYWOOD INTEGRATED MODAL INFORMATION SYSTEM. INSTALLATION OF ELECTRONIC, DIRECTION AND PARKING AVAILABILITY SIGNS WITH INTERNET CONNECTIVITY TO PROVIDE ADVANCE AND REAL-TIME INFORMATION INTENDED TO INCREASE TRANSIT RIDERSHIP	9/21/2015

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
LOS ANGELES, CITY OF	LAF3419	SUNSET JUNCTION PHASE 2. CREATE A MULTI-MODAL TRANSIT PLAZA TO INTEGRATE PUBLIC TRANSPORTATION, PEDESTRIAN & BICYCLE IMPROVEMENTS THAT WOULD RESULT IN REGIONAL & LOCAL BENEFITS (CFP3844). TRIANGLE PROPERTY ON SUNSET BLVD BWT MANZANITA AND SANTA MONICA.	6/30/2017
MONROVIA	LAE0039	TRANSIT VILLAGE – PROVIDE A TRANS. FACILITY FOR SATELLITE PARKING FOR SIERRA MADRE VILLA GOLD LINE STA, P-N-R FOR COMMUTERS, A FOOTHILL TRANSIT STORE.	12/31/2012
PORT OF LOS ANGELES	LAF3170	PORT TRUCK TRAFFIC REDUCTION PROGRAM: WEST BASIN RAILYARD. INTERMODAL RAILYARD CONNECTING PORT OF LA WITH ALAMEDA CORRIDOR TO ACCOMMODATE INCREASED LOADING OF TRAINS AT THE PORT, THEREBY REDUCING TRUCK TRIPS TO OFF-DOCK RAILYARDS.	12/1/2014
RANCHO PALOS VERDES	LAF1506	BIKE COMPATIBLE RDWY SAFETY AND LINKAGE ON PALOS VERDES DR. THE PROJECT WILL HAVE A CLASS II BIKE LANE ON BOTH SIDES OF PALOS VERDES DRIVE SOUTH, WITH AN UNPAVED SHOULDER FOR EMERGENCY USE.	10/9/2014
RANCHO PALOS VERDES	LAF1605	PEDESTRIAN SAFE BUS STOP LINKAGE. LINKING 11 BUS STOPS CURRENTLY INACCESSIBLE BECAUSE OF LACK OF SIDEWALKS ON BOTH THE EAST AND WEST SIDE OF HAWTHORNE BLVD. FROM CREST RD. TO PALOS VERDES DR. SOUTH (ABOUT 13,000')	12/9/2013
SAN DIMAS	LAF1503	BIKEWAY IMPROVEMENTS ON FOOTHILL BLVD. AT SAN DIMAS WASH. THE BWY IMPROVEMENTS ON FOOTHILL BLVD. AT SAN DIMAS WASH; WILL CLOSE THE GAP ON A BRIDGE & CONNECT THE EXISTING CLASS II BIKE LANES TO THE EAST & WEST OF SAN DIMAS WASH CROSSING.	12/1/2013
SAN GABRIEL VALLEY COG	LA990359	GRADE SEP XINGS SAFETY IMPR; 35- MI FREIGHT RAIL CORR. THRGH SAN.GAB. VALLEY – EAST. L.A. TO POMONA ALONG UPRR ALHAMBRA &L.A. SUBDIV – ITS 2318 SAFETEA #2178;1436 #1934 PPNO 2318	6/30/2018
SANTA FE SPRINGS	LA0F096	NORWALK SANTA FE SPRINGS TRANSPORTATION CENTER PARKING EXPANSION AND BIKEWAY IMPROVEMENTS. PROVIDE ADDITIONAL 250 PARKING SPACES FOR TRANSIT CENTER PATRONS AND IMPROVE BICYCLES ACCESS TO THE TRANSIT CENTER	6/30/2012
SANTA MONICA	LAE0364	CONSTRUCT INTERMODAL PARK AND RIDE FACILITY AT SANTA MONICA COLLEGE CAMPUS ON SOUTH BUNDY DRIVE NEAR AIRPORT AVENUE	12/31/2013

**Attachment A: Committed Transportation Control Measures (TCMs)**

Los Angeles County			
Lead Agency	Project ID	Project Description	Completion Date
TORRANCE	LA0G358	SOUTH BAY REGIONAL INTERMODAL TRANSIT CENTER PROJECT. THE LAND IS IN THE PROCESS OF BEING PURCHASED AND ESCROW WILL CLOSE ON DECEMBER 17, 2009. PRESENTLY, THE LOT IS VACANT/OPEN LAND WITH NO EXISTING STRUCTURE UPON IT. THE ADDRESS IS 465 N. CRENSHAW BLVD., TORRANCE, CA 90503.	12/31/2015
WESTLAKE VILLAGE	LA960142	LINDERO CANYON ROAD FROM AGOURA TO JANLOR DR CONSTRUCT BIKE PATH, RESTRIPE STREET, INTERSECTION WIDENING, SIGNAL COORDINATION	1/30/2013

Orange County			
Lead Agency	Project ID	Project Description	Completion Date
ANAHEIM	ORA000100	GENE AUTRY WAY WEST @ I-5 (I-5 HOV TRANSITWAY TO HASTER) ADD OVERCROSSING ON I-5 (S)/MANCHESTER AND EXTEND GENE AUTRY WAY WEST FROM I-5 TO HASTER (3 LANES IN EA DIR.)	11/16/2012
CALTRANS	ORA000193	HOV CONNECTORS FROM SR-22 TO I-405, BETWEEN SEAL BEACH BLVD. (I-405 PM 022.558) AND VALLEY VIEW ST. (SR-22 PM R000.917), WITH A SECOND HOV LANE IN EACH DIRECTION ON I-405 BETWEEN THE TWO DIRECT CONNECTORS.	2/1/2015
CALTRANS	ORA000194	HOV CONNECTORS FROM I-405 TO I-605, BETWEEN KATELLA AVE. (I-605 PM R001.104) AND SEAL BEACH BLVD. (I-405 PM 022.643), WITH A SECOND HOV LANE IN EACH DIRECTION ON I-405 BETWEEN THE TWO DIRECT CONNECTIONS.	7/1/2015
FULLERTON	ORA020113	FULLERTON TRAIN STATION – PARKING STRUCTURE, PHASE I AND II. TOTAL OF 800 SPACES (PPNO 2026)	5/31/2012
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA041501	PURCHASE (71) STANDARD 30FT EXPANSION BUSES – ALTERNATIVE FUEL – (31) IN FY08-09, (9) IN FY09-10, (7) IN FY11-12, (6) IN FY12-13 AND (18) IN FY13-14	6/30/2016
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA110633	RIDESHARE VANPOOL PROGRAM – CAPITAL LEASE COSTS	9/30/2012
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA65002	RIDESHARE SERVICES RIDEGUIDE, DATABASE, CUSTOMER INFO, AND MARKETING (ORANGE COUNTY PORTION).	6/30/2016

**Attachment A: Committed Transportation Control Measures (TCMs)**

Orange County			
Lead Agency	Project ID	Project Description	Completion Date
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA0826016	PURCHASE (72) PARATRANSIT EXPANSION VANS – (21) IN FY09/10, (51) IN FY10/11.	6/30/2016
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA082618	PURCHASE PARATRANSIT VEHICLES EXPANSION (MISSION VIEJO) (11) IN FY09/10. ON-GOING PROJECT.	6/30/2030
TCA	10254	SJHC, 15 MI TOLL RD BETWEEN I-5 IN SAN JUAN CAPISTRANO & RTE 73 IN IRVINE, EXISTING 3/M/F EA.DIR.1 ADD’L M/F EA DIR, PLUS CLIMBING & AUX LNS AS REQ, BY 2020 PER SCAG/TCA MOU 4/5/01	12/31/2020
TCA	ORA050	ETC (RTE 241/261/133) (RTE 91 TO I-5/JAMBOREE) EXISTING 2 M/F EA.DIR, 2 ADD’L M/F IN EA. DIR, PLUS CLIMB AND AUX LNS AS REQ, BY 2020 PER SCAG/TCA MOU 4/05/01.	12/31/2020
TCA	ORA051	(FTC-N) (OSO PKWY TO ETC) (13MI) EXISTING 2 MF IN EA. DIR, 2 ADDITIONAL M/F LANES, PLS CLMBNG & AUX LANS AS REQ BY 2020 PER SCAG/TCA MOU 4/05/01.	12/31/2020
TCA	ORA052	(FTC-S) (I-5 TO OSO PKWY) (15MI) 2 MF EA. DIR BY 2013; AND 1 ADDITIONAL M/F EA. DIR. PLS CLMBNG & AUX LANES AS REQ BY 2030 PER SCAG/TCA MOU 4/05/01. #1988	6/15/2030

Riverside County			
Lead Agency	Project ID	Project Description	Completion Date
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV010212	ON SR91 – ADAMS TO 60/215 IC: ADD ONE HOV LN IN EACH DIRECTION, RESTRIPE TO EXTEND 4TH WB MIXED FLOW LANE FROM 60/215 IC TO CENTRAL OFF-RAMP, RESTRIPE TO EXTEND 5TH WB MIXED FLOW LANE FROM 60/215 IC TO 14TH ST OFF-RAMP, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/RECONSTRUCT + SOUND/RETAINING WALLS	8/3/2015
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV050555	ON I-215 (N/O EUCALYPTUS AVE TO N/O BOX SPRINGS RD) & SR60 (E/O DAY ST TO SR60/I-215 JCT): RECONSTRUCT JCT TO PROVIDE 2 HOV DIRECT CONNECTOR LNS (SR60 PM: 12.21 TO 13.6) AND MINOR WIDENING TO BOX SPRINGS RD FROM 2 TO 4 THROUGH LANES BETWEEN MORTON RD AND BOX SPRINGS RD/FAIR ISLE DR IC (EA: 449311)	4/29/2013

**Attachment A: Committed Transportation Control Measures (TCMs)**

Riverside County			
Lead Agency	Project ID	Project Description	Completion Date
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV051201	IN CORONA – CONTINUE THE IMPLEMENTATION OF A 60 SPACE PARK-AND-RIDE LOT (VIA ANNUAL LEASE AGREEMENT) AT LIVING TRUTH CHRISTIAN FELLOWSHIP AT 1114 W. ONTARIO AVE.	6/30/2013
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV070303	ON SR60 IN NW RIV CO: CONTINUE THE IMPLEMENTATION OF THE EXPANDED SR60 FREEWAY SERVICE PATROL (FSP) (BEAT #7 PATROL , 2 TRUCKS) BETWEEN MILIKEN AVE & MAIN ST (SR60 HOV LN CHANGE TCM SUBSTITUTION PROJECT)	ON GOING TCM PROGRAM IN RIVERSIDE COUNTY
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV070304	ON I-215 IN SW RIV CO: CONTINUE THE IMPLEMENTATION OF I-215 FREEWAY SERVICE PATROL (FSP) (BEAT #19, 2 TRUCKS) BETWEEN SR74/4TH ST AND ALESSANDRO BLVD (SR60 HOV LANE CHANGE TCM SUBSTITUTION PROJECT)	ON-GOING TCM PROGRAM IN RIVERSIDE COUNTY
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV070307	ON SR60 IN MORENO VALLEY: CONTINUE THE IMPLEMENTATION OF SR60 FREEWAY SERVICE PATROL (FSP) (BEAT #8, 2 TRUCKS) BETWEEN DAY ST AND REDLANDS BLVD (SR60 HOV LANE CHANGE TCM SUBSTITUTION PROJECT)	ON-GOING TCM PROGRAM IN RIVERSIDE COUNTY
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV520109	RECONSTRUCT & UPGRADE SAN JACINTO BRANCH LINE FOR RAIL PASSENGER SERVICE (RIVERSIDE TO PERRIS) (PERRIS VALLEY LINE) (FY 07 5307) (UZA: RIV-SAN)	2014
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV520111	REGIONAL RIDESHARE – CONTINUING PROGRAM.	ON-GOING TCM PROGRAM IN RIVERSIDE COUNTY
RIVERSIDE TRANSIT AGENCY	RIV041030	IN THE CITY OF HEMET – CONSTRUCT NEW HEMET TRANSIT CENTER (WITH APPROXIMATELY 4 BUS BAYS) AT 700 SCARAMELLA CR., HEMET, CA (5309C FY 04 + 05 EARMARKS).	6/30/2013
RIVERSIDE TRANSIT AGENCY	RIV050553	IN TEMECULA – CONSTRUCT NEW TEMECULA TRANSIT CENTER AT 27199 JEFFERSON AVE. (SW OF JEFFERSON AVE & SE OF CHERRY ST) (04, 05, 06, 07, E-2006-091, E-2007-0131, & 2008-BUSP-0131, SAFETEA-LU).	12/30/2014
RIVERSIDE TRANSIT AGENCY	RIV090609	IN WESTERN RIVERSIDE COUNTY FOR RTA: INSTALL ADVANCE TRAVELER INFORMATION SYSTEMS (ATIS) ON VARIOUS FIXED ROUTE VEHICLES AND INSTALLATION OF ELECTRONIC MESSAGE SIGNS AT APPROX. 60 BUS STOPS (FY 'S 05, 07, 08, 09, AND 10 – 5309).	12/30/2012

**Attachment A: Committed Transportation Control Measures (TCMs)**

Riverside County			
Lead Agency	Project ID	Project Description	Completion Date
TEMECULA	RIV62029	AT HWY 79 SO AND LA PAZ ST: ACQUIRE LAND, DESIGN AND CONSTRUCT PARK-AND-RIDE LOT – 250 SPACES (FY 05 HR4818 EARMARK)	12/31/2015

San Bernardino County			
Lead Agency	Project ID	Project Description	Completion Date
OMNITRANS	981118	BUS SYSTEM – PASSENGER FACILITIES: DESIGN AND BUILDING OF ONTARIO TRANSCENTER	5/31/2012
RIALTO	200450	RIALTO METROLINK STATION – INCREASE PARKING SPACES FROM 225-775	12/1/2012
SANBAG	200074	LUMP SUM – TRANSPORTATION ENHANCEMENT ACTIVITIES PROJECTS FOR SAN BERNARDINO COUNTY-BIKE/PED PROJECTS (PROJECTS CONSISTENT W/40CFR PART 93.126,127,128, EXEMPT TABLE 2 & 3).	12/1/2015
SANBAG	20040827	RIDESHARE PROGRAM FOR SOUTHCOAST AIR DISTRICT	12/1/2015
VARIOUS AGENCIES	713	I-215 CORRIDOR NORTH – IN SAN BERNARDINO, ON I-215 FROM RTE 10 TO RTE 210 – ADD 2 HOV & 2 MIXED FLOW LNS (1 IN EA. DIR.) AND OPERATIONAL IMP INCLUDING AUX LANES AND BRAIDED RAMP	9/1/2013

Note: Projects may include TCM and non-TCM portions. Committed TCMs include only that portion of the projects that meets the definition of TCMs.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
1.1	Regional Express Bus Program	Purchase of buses to operate regional express bus services.	Yes		CTCs (MTA, OCTA), Transit Operators
1.2	Transit access to airports	Operation of transit to airport to serve air passengers.	Yes		Transit Operators, CTCs (MTA, SCRRRA)
1.3	Accelerate Bus Retrofit Program	Accelerate application of retrofit of diesel-powered buses to achieve earlier compliance with state regulations.	Yes		CTCs (MTA, OCTA), Transit Operators
1.4	Mass transit alternatives	Major change to the scope and service levels.	Yes		SCAG, CTCs
1.5	Expansion of public transportation systems	Expand and enhance existing public transit services.	Yes		CTCs
1.6	Transit service improvements in combination with park-and-ride lots and parking Management	Local jurisdictions and transit agency improve the public transit system and add new park-and-ride facilities and spaces on an as needed basis.	Yes		CTCs (MTA, SCRRRA)

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
1.7	Free transit during special events	Require free transit during selected special events to reduce event-related congestion and associated emission increases.	No <i>(The Mobile Source Air Pollution Reduction Review Committee has been co-funding free event center shuttle service demonstration projects)</i>	The Legislature significantly reduced authority of AQMD to implement indirect source control measures through revisions to the Health & Safety Code (HSC 40717.8).  Transit agencies should decide individually whether this measure is economically feasible for them.	
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 use transit a specified number of times per week, or expand transit, and encourage business to promote transit use.	Yes		CTCs
1.9	Increase parking at transit centers or stops	Encourage transit convenience by providing additional parking at transit centers.	Yes		CTCs
1.10	Expand regional transit connection ticket distribution	Provides interchangeability of transit ticket.	Yes		CTCs, Metrolink

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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		SCAG, Caltrans, CTCs
2.2	Fixed lanes for buses and carpools on arterials	Provide fixed lanes for buses and carpools on arterial streets where appropriate.	Yes		CTCs (MTA, OCTA), LA City
2.3	Expand number of freeway miles available, allow use by alternative fuel vehicles, changes to HOV lane requirements and hours	Various measures evaluated in many ozone nonattainment areas. Specifics vary according to freeway system, use patterns and local characteristics.	Yes		ARB, Caltrans

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
3.1*	Commute solutions	The federal law that complements parking cash-out is called the <i>Commuter Choice Program</i> . It provides for benefits that employers can offer to employees to commute to work by methods other than driving alone.	Yes		Employer, AQMD
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		Employer, AQMD
3.3*	Employer Rideshare Program Incentives	Employer rideshare incentives and introduction of strategies designed to reduce single occupant vehicle trips. Examples include: public awareness campaigns, Transportation Management Associations among employers, alternative work hours, and financial incentives.	Yes		Employer, AQMD
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		Cities, Counties, Employer
3.5*	Preferential parking for carpools and vanpools	This measure encourages public and private employers to provide preferential parking spaces for carpools and vanpools to decrease the number of single occupant automobile work trips. The preferential treatment could include covered parking spaces or close-in spaces.	Yes		Employer, AQMD

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
3.6*	Employee parking fees	Encourage public and private employers to charge employees for parking.	Yes		Employer, AQMD
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	Require state legislation.	
3.8*	Purchase vans for vanpools	Purchase a specified number of vans for use in employee commute travel.	Yes		Employer, AQMD
3.9*	Encourage merchants and 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		Employer, AQMD
3.10*	Compressed work weeks	Work 80 hours in 9 days, or 40 hours in 4 days, or 36 hours in 3 days in lieu of working 40 hours in 5 days.	Yes		Employer, AQMD
3.11*	Telecommuting	Goal of specified percentage of employees telecommuting at least once per week.	Yes		Employer, AQMD
3.12	<b>Income Tax Credit to Telecommuters</b>	<b>Provide tax relief to employees telecommuting to work.</b>	No	<b>Requires state legislation.</b>	

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

**Section 108 (f) 4. Trip Reduction Ordinance**

In December 1995, Congress changed the Clean Air Act Amendments to make the Employee Commute Option program voluntary (no longer mandatory). California State Law prohibits mandatory employer based trip reduction ordinance programs (SB437). (HSC 40717.9) To account for these restrictions, SCAQMD Rule 2202 provides employers with a menu of options to reduce mobile source emissions generated from employee commutes. Rule 2202 complies with federal and state Clean Air Act requirements, HSC 40458, and HSC 182(d)(1)(B) of the federal Clean Air Act. Nevertheless, some jurisdictions continue to implement Trip Reduction Ordinances. For example, the City of Santa Monica requires new and existing non-residential development projects to adopt Emission Reduction Plans and pay transportation impact fees to reduce traffic congestion and improve air quality in the city.

<b>Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions</b>					
<b>Measure #</b>	<b>Measure Title</b>	<b>Description</b>	<b>Has It Been Implemented</b>	<b>Reasoned Justification for Not Implementing Measure</b>	<b>Implementing Agency or Agencies</b>
5.1	Develop Intelligent Transportation Systems	The term “Intelligent Transportation Systems” includes a variety of technological applications intended to produce more efficient use of existing transportation corridors.	Yes		CTCs, Caltrans
5.2	Coordinate traffic signal systems	This measure implements and enhances synchronized traffic signal systems to promote steady traffic flow at moderate speeds.	Yes		CTCs, Counties, and Cities
5.3	Reduce traffic congestion at major intersections	This measure implements a wide range of traffic control techniques designed to facilitate smooth, safe travel through intersections. These techniques include signalization, turn lanes or median dividers. The use of grade separations may also be appropriate for high volume or unusually configured intersections.	Yes		CTCs, Counties, and Cities
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		CTCs, Counties, and Cities

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
5.5	Removal of on-street parking	Require all commercial/industrial development to design and implement off-street parking.	Yes		CTCs, Counties, and Cities
5.6	Reversible lanes	Implement reversible lanes on arterial streets to improve traffic flow where appropriate.	Yes		CTCs, Counties, and Cities
5.7	One-way streets	Redesignate streets (or portions of in downtown areas) as one-way to improve traffic flow.	Yes		CTCs, Counties, and Cities
5.8	On-Street parking restrictions	Restrict on-street parking where appropriate.	Yes		CTCs, Counties, and Cities
5.9	Bus pullouts in curbs for passenger loading	Provide bus pullouts in curbs, or queue jumper lanes for passenger loading and unloading.	Yes		CTCs, Counties, and Cities
5.10	Additional freeway service patrol	Operation of additional lane miles of new roving tow truck patrols to clear incidents and reduce delay on freeways during peak periods.	Yes		CTCs, CHP
5.11	Fewer stop signs, remove unwarranted and "political" stop signs and signals	Improve flow-through traffic by removing stop signs and signals. Potential downside in safety issues.	Yes		CTCs, Counties, and Cities
5.12	Ban left turns	Banning all left turns would stop the creation of bottlenecks although slightly increase travel distances.	No	No clear demonstration of air quality emissions benefits.	
5.13	Changeable lane assignments	Increase number of one-way lanes going in congested flow direction during peak traffic hours.	Yes		Caltrans, CTCs, Counties, and Cities
5.14	Adaptive traffic signals and signal timing	Self explanatory.	Yes		Counties, Counties, and Cites

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

<b>Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions</b>					
<b>Measure #</b>	<b>Measure Title</b>	<b>Description</b>	<b>Has It Been Implemented</b>	<b>Reasoned Justification for Not Implementing Measure</b>	<b>Implementing Agency or Agencies</b>
5.15	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)	Identify key freeway bottlenecks and take accelerated action to mitigate them.	Yes		Caltrans, SCAG
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		Caltrans
5.17	Internet provided road and route information	Reduce travel on highly congested roadways by providing accessible information on congestion and travel.	Yes		CTCs, Caltrans, Counties, Cities
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		Caltrans, Counties, Cities
5.19	Congestion management field team to clear incidents	Self explanatory.	Yes		CTCs, CHP
5.20	Use dynamic message signs to direct/smooth speeds during incidents	Self explanatory.	Yes		Caltrans
5.21	Get real-time traffic information to trucking centers and rental car agencies	Reduce travel in congested areas by providing information directly to high volume travelers.	Yes		CTCs, Caltrans

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
5.22	55 mph speed limit during ozone season	Self explanatory	No	Reductions in freeway speeds are governed by California Vehicle Code 22354, which authorizes Caltrans to lower speeds after doing an engineering and traffic survey, which shows that the legislatively- set maximum speed of 65 mph, is more than is reasonable or safe.  No consideration of emissions is contemplated under this statute. This measure is not feasible until the statute is changed.	
5.23	Require 40 mph speed limit on all facilities	Depends on area's emission factors.	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.	
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.	
5.25	On-street parking restrictions	Restrict on-street parking where appropriate.	Yes		State, Counties, and Cities

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
6.1	Park-and-ride lots	Develop, design, and implement new park-and-ride facilities in locations where they are needed.	Yes		CTCs, Transit Operators, SCRRRA
6.2	Park-and-ride lots serving perimeter counties	Specific to a locality.	Yes		CTCs, Transit Operators, SCRRRA

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
7.1	Off-peak goods movement	Restrict truck deliveries by time or place in order to minimize traffic congestion during peak periods.	Yes		PierPass  A non-profit organization of marine terminal operators at the Ports of Los Angeles and Long Beach.
7.2	Truck restrictions during peak periods	Restrict truck travel during peak periods in order to minimize traffic congestion.	Yes		See Measure 7.1
7.3	Involve school districts to encourage walking/bicycling to school	Decrease vehicle emissions due to school trips by reducing these trips through education and out-reach programs.	Yes		School Districts

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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.	
7.5	Area-wide tax for parking	Reduce driving by limiting parking through pricing measures.	Yes		Counties, Cities
7.6	Increase parking fees	Reduce driving by limiting parking through pricing measures.	No	Attorney General ruled AQMD lacks authority to implement this measure.	
7.7	Graduated pricing starting with highest in Central Business District	Charge the most for parking in the central business or other high volume areas in a city to discourage vehicle travel in these areas.	Yes		Market Driven
7.8	Buy parking lots and convert to other land use	Limit parking by converting available parking to other land uses to discourage driving.	Yes		Counties and Cities
7.9	Limit the number of parking spaces at commercial airlines 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.	

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
7.10	No Central Business District (CBD) vehicles unless LEV or alt fuel or electric	Define high-use area and ticket any vehicles present unless they are low emitting, alternative fueled or electric.	No	The Legislature significantly reduced authority to implement indirect source control measures through revisions to the Health & Safety Code (40717.6, 40717.8, and 40717.9).	
7.11	Auto restricted zones	No vehicles allowed in certain areas where high emissions, congestion or contribution to ozone problems.	Yes		Counties and Cities
7.12	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes		Counties and Cities
7.13	Land use/air quality guidelines	Guidelines for development that contributes to air quality goals.	Yes		ARB, AQMD, SCAG
7.14	Cash incentives to foster jobs/housing balance	Specific to locality – encouraged by California Clean Air Plan.	No	No dedicated source of funding for this measure.	
7.15	Trip reduction oriented development	Land use decisions that encourage trip reductions.	Yes		Counties, Cities, CTCs
7.16	Transit oriented development	Land use decisions that encourage walkable communities and multi-modal transit systems.	Yes		Counties, Cities, CTCs
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		Counties, Cities, CTCs

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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		AQMD, Employer
8.2	Internet ride matching services	Provide match-lists, route info, hours and contact information over the internet to assist individuals in joining or developing carpools.	Yes		CTCs, SCAG
8.3*	Preferential parking for carpoolers	Provide free, covered, near-building or similar incentives to carpoolers.	Yes		AQMD, Employer
8.4*	Credits and incentives for carpoolers	Self-explanatory – form depends on locality.	Yes		AQMD, Employer
8.5*	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		AQMD, Employer
8.6	Subscription services	Free van services to provide transportation for the elderly, handicapped or other individuals who have no access to transportation.	Yes		County, Employer
8.7	School car pools	Self explanatory and voluntary	No	Not economically feasible and insufficient resources available for implementation.	
8.8*	Guaranteed ride home	Self explanatory.	Yes		AQMD, Employer

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

<b>Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services</b>					
<b>Measure #</b>	<b>Measure Title</b>	<b>Description</b>	<b>Has It Been Implemented</b>	<b>Reasoned Justification for Not Implementing Measure</b>	<b>Implementing Agency or Agencies</b>
8.9	Transit Voucher Program	Transit vouchers for elderly and low income commuters.	Yes		CTCs, SCAG

<b>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</b>					
<b>Measure #</b>	<b>Measure Title</b>	<b>Description</b>	<b>Has It Been Implemented</b>	<b>Reasoned Justification for Not Implementing Measure</b>	<b>Implementing Agency or Agencies</b>
9.1	Establish Auto-Free Zones and pedestrian malls	Establish auto free zones and pedestrian malls where appropriate.	Yes		Counties and Cities
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		CTCs, Counties, Cities, SCAG
9.3	Bicycle/Pedestrian Program	Fund high priority projects in countywide plans consistent with funding availability.	Yes		CTCs, Counties, and Cities
9.4	Close certain roads for use by non-motorized traffic	During special events, weekends, or certain times of the day, close some roads to all but non-motorized traffic.	Yes		Counties, and Cities

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
9.5	Encouragement of 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		SCAG, CTCs, Counties, and Cities
9.6	Free bikes	Provide free bikes in the manner of Boulder, CO. Simple utilitarian bikes that can be used throughout the metro area and dropped off at destination for use by anyone desiring use.	No	Evidence suggests that bicycle theft is a problem in other programs and renders the measure technically and economically infeasible.	
9.7*	Cash rebates for bikes	Provide financial incentives to purchase bicycles and thereby encourage use.	Yes		Employer
9.8	Close streets for special events for use by bikes and pedestrians	Self Explanatory.	Yes		Counties and Cities
9.9	Use condemned dirt roads for bike trails	Self Explanatory.	No	Not applicable because there are no condemned dirt roads in the region.	

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
10.1*	Bike racks at work sites	Self Explanatory.	Yes		AQMD, Employer
10.2	Bike racks on buses	Bike racks would be placed on a to-be-determined number of buses to increase bicycle travel.	Yes		CTCs, Transit Operators, SCRRA
10.3	Regional bike parking	Bike Transit Centers	Yes		CTCs
10.4	Development of bicycle travel facilities	Encourages a variety of capital improvements to increase bicycle use. Off-street bikeways where high-speed roadways preclude safe bicycling. Clearly mark travel facilities with signs and provide adequate maintenance.	Yes		CTCs, Transit Operators, SCRRA
10.5	Expedite bicycle projects from RTP	Create bicycle and pedestrian master plan and build out at an accelerated rate to achieve benefits in time for attainment deadline.	Yes		SCAG, CTCs, Counties, Cities
10.6	Provide bike/pedestrian facilities safety patrols	Self Explanatory.	Yes		Counties and Cities
10.7	Inclusion of bicycle lanes on thoroughfare projects	Self Explanatory.	Yes		State, Counties, and Cities
10.8	Bicycle lanes on arterial and frontage roads	Self Explanatory.	Yes		State, Counties, and Cities
10.9	Bicycle route lighting	Self Explanatory.	Yes		State, Counties, Cities

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 11. Programs to Control Extended Idling of Vehicles					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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	This measure was investigated by the AQMD and it was determined that in contrast to colder climates where vehicles are started on a daily basis, vehicles in the South Coast started much less frequently. For this reason it was determined not to be technically feasible.	
11.2	Encourage limitations on vehicle idling	Encourage limitations to limit extended idling operations.	Yes		ARB
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 air quality emissions benefits.	
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.	
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 air quality emissions benefits.  This measure is not economically feasible.	

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 11. Programs to Control Extended Idling of Vehicles					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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		ARB
11.7	Idle restrictions at airport curbsides	Self-explanatory and police enforced.	Yes		Airport authority
<b>11.8</b>	<b>Truck Stop Electrification</b>	<b>Provide electric charging stations for at truck stops to power heating/AC units and other on-board equipment.</b>	<b>Yes</b>		<b>ARB</b>

Section 108 (f) 12. Program to Reduce Motor Vehicle Emissions Consistent with Title II, Which Are Caused by Extreme Cold Start Conditions	
Not applicable. The definition of an "extreme cold start" specifies temperatures below 20 degrees Fahrenheit.	Not applicable in the South Coast - No extreme cold start conditions

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
13.1*	Alternative work schedules	Enables workers to choose their own working hours within certain constraints. Flextime provides the opportunity for employees to use public transit, ridesharing, and other Nonmotorized transportation. A related strategy, staggered work hours, is designed to reduce congestion in the vicinity of the workplace. Alternative workweeks have been implemented extensively by large private and public employers.	Yes		AQMD, Employer
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		AQMD, Employer
13.3*	Telecommunications-Telecommuting/Teleconferencing	Encourage the use of telecommuting-telecommuting/teleconferencing in place of motor vehicle use where appropriate.	Yes		AQMD, Employer

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
14.1	Areawide public awareness programs	This measure focuses on conducting ongoing public awareness programs throughout the year to provide the public with information on air pollution and encourage changes in driving behavior and transportation mode use.	Yes		AQMD
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. The definition of "special event center" could be developed through the rule development process.	Yes		Counties, Cities, Special Event Operators
14.3	Land Use/development alternatives	This measure includes encouraging land use patterns, which support public transit and other alternative modes of transportation. In general, this measure would also encourage land use patterns designed to reduce travel distances between related land uses	Yes		ARB, SCAG, AQMD, Counties, Cities
14.4	Voluntary No-Drive Day programs	Conduct voluntary No-Drive Day programs during the ozone season through media and employer based public awareness activities.	Yes		CTCs
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		AQMD, Counties, Cities, CEQA Lead Agencies

\*\* AQMD and SCAG recommend mitigation as commenting agencies on new development projects; cities and counties require mitigation under their discretionary authority as lead agency.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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		SCAG, State
14.7	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes		Counties, Cities, CTCs
14.8	Incentives for cities with good development practices	Provide financial or other incentive to local cities that practice air quality-sensitive development.	Yes		Counties, Cities
14.9	Increase state gas tax	Self Explanatory.	No	Need state legislation.	
<b>14.10</b>	<b>Pay-As-You-Drive Insurance</b>	<b>Self Explanatory.</b>	<b>No</b>	<b>Need state legislation.</b>  <b>No clear demonstration of air quality emission benefits so does not advance attainment date..</b>	

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
15.1*	Encouragement of pedestrian travel	Promote public awareness and use of walking as an alternative to the motor vehicle.	Yes		AQMD, SCAG, CTCs, Employer
15.2	Pedestrian and bicycle overpasses where safety dictates	Ongoing implementation as development occurs.	Yes		Counties, Cities

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
16.1	Counties assess ten dollar license plate fee to fund repair/replacement program for high-emitters	Self explanatory.	Yes		ARB, BAR**
16.2	Buy vehicles older than 1975	Self explanatory.	Yes		ARB, AQMD***
16.3	Demolish impounded vehicles that are high emitters	Self explanatory.	No	Not economically feasible.	

\* This measure relates to AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen.

\*\* Similar program administered with different funding source as part of smog check.

\*\*\* Voluntary car scrapping programs to generate credits.

**Attachment B: 2012 South Coast PM2.5 AQMP Reasonably Available Control Measure (RACM) Analysis - TCMs**

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					
Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
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 economically feasible.	
16.5	Accelerated retirement program	Identify high emitting vehicle age groups and develop a program to remove them from use.	Yes		ARB, AQMD

Comments	Responses
<p><u>National Resources Defense Council (NRDC) Comment Letter dated September 5, 2012, page 5 of 6 (Comment KK-9):</u></p> <p>NRDC remains concerned that the 2012 AQMP does not effectively incorporate a range of Transportation Control Measures (“TCM”) commensurate with the air quality challenges this region faces. Accordingly, we suggest that the agencies cooperating on this air plan reevaluate the potential for additional TCMs that can enhance mobility while helping tackle[r][sic] the region’s persistent air quality challenges.</p> <p><b>A. Elements of SCAG’s RTP Should Be Included in the AQMP as TCMs.</b></p> <p>SCAG’s excellent work to adopt its RTP/SCS in April, 2012 resulted in a plan with many useful elements, some of which should be adopted into this plan as TCMs. We recommend:</p> <ol style="list-style-type: none"> <li>1. Active Transportation Component, \$6.7B (AQMP, at IV-C-7);</li> <li>2. Transit Component (id.); and</li> <li>3. Passenger and High Speed Rail Component.</li> </ol>	<p>The U.S. Environmental Protection Agency’s (EPA) Transportation Conformity Regulations define transportation control measures (TCMs) as those projects and programs that reduce emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Note, SCAG facilitates interagency consultation regarding TCM related issues through SCAG’s Transportation Conformity Working Group but SCAG does not have the discretion to expand this regulatory definition.</p> <p>The Clean Air Act requires TCMs to be included in SIPs only for “serious” and above ozone non-attainment areas. In the SCAG region, only the South Coast Air Basin and the Ventura County portion of the South Central Coast Air Basin are serious or above nonattainment areas and thus include TCMs in their ozone SIPs. To add new TCM categories that are not in the applicable ozone SIPs, an ozone revision would be required. Nevertheless, TCM type projects are planned for and implemented throughout the six-county SCAG region irrespective of whether or not they are included in an applicable SIP. Specifically, the 2012-2035 Regional Transportation Plan/ Sustainable Communities Strategy (2012-2035 RTP/SCS) constitutes the transportation strategy and control measures portion of the 2012 AQMP (Appendix IV-C), inclusive of all TCMs and TCM type projects therein.</p> <p>As discussed in the Appendix IV-C and also specified in the 2007 South Coast Ozone SIP, TCM type projects and programs in this plan include the following three main categories of transportation improvement projects and programs:</p> <ol style="list-style-type: none"> <li>(1) High occupancy vehicle (HOV) measures,</li> <li>(2) Transit and systems management measures (including capacity-expanding active transportation projects such as new bike lane projects), and</li> <li>(3) Information-based transportation strategies.</li> </ol> <p>While all TCM type projects in the 2012-2035 RTP/SCS are included in the transportation strategy and control measures portion of the AQMP, only those TCM type projects which have funding programmed for right-of-way or</p>

Comments	Responses
	<p>construction in the first two years of the prevailing Federal Transportation Improvement Program (FTIP) developed by SCAG are considered committed for air quality planning purposes in the applicable SIP. As TCM type projects become committed TCMs through the biennial FTIP process, they are automatically rolled into the SIP as committed TCMs (the “TCM Rollover Process” as described in SCAG’s FTIP Guidelines and 2007 Ozone SIP). To add any new TCM projects that are not in the adopted 2012-2035 RTP/SCS, an RTP/FTIP amendment/update would be required.</p>
<p><u>National Resources Defense Council (NRDC) Comment Letter dated September 5, 2012, pages 5 &amp; 6 of 6 (Comment KK-10):</u></p> <p>[Footnote <sup>1</sup>] The current list of TCMs includes some bike projects, but it remains unclear what is the criteria for inclusion of these projects as TCMs. Overall, NRDC supports including a much more robust set of active transportation projects as TCMs</p> <p><b>B. Expanding parking should not be included as a TCM without evidence that it will lead to real, cost-effective reductions in emissions</b></p> <p>Several projects propose to add hundreds of new parking spaces, either at park and rides or at transit facilities. Expanding parking at transit stations, unless priced appropriately to offset the cost of the spaces, increases costs for all transit system users, including the many who do not drive, and takes valuable land in the vicinity of transit stations off the market for what could be viable commercial or residential development. Please provide background documentation to suggest that such parking expansions lead to real, cost-effective, equitable reductions in vehicle use and emissions.</p>	<p>Comments noted. SCAG’s FTIP Guidelines include a Transportation Control Measures chapter with detailed information on the TCM development process including definitions and project categories of TCMs, addition of new TCMs, and the TCM “Rollover” Process.</p> <p>In the SCAG region, new TCMs are identified by the FTIP process. Projects that meet the TCM criteria become committed TCMs and part of the applicable SIP after the following occurs: 1) funds are committed for right-of-way or construction in the first two years (the fiscally constrained portion) of the FTIP; 2) the FTIP is approved by the Regional Council; 3) state and federal approval of the FTIP; and 4) concurrence with regard to TCMs by US EPA and California Air Resources Board (ARB).</p> <p>Park-n-ride lot expansion projects are TCMs because park-n-ride lots are intermodal transfer facilities that can increase usage of public transit services.</p>

Comments	Responses
<p><u>National Resources Defense Council (NRDC) Comment Letter dated September 5, 2012, page 6 of 6 (Comment KK-11):</u></p> <p><b>C. Expansion of mixed-flow lanes should not be included as TCMs.</b></p> <p>Several projects propose to widen roads by adding mixed-flow lanes. Section 108(f)(1)(a) lists high occupancy vehicle (HOV) lanes as appropriate TCMs, but it is less clear that construction of new mixed-flow facilities will yield permanent reductions in vehicle use and emissions. More likely, such expansions – if intended to reduction bottlenecks – may have temporary emissions benefits, and in short order lead to new, induced trips, and potentially induced land development to take advantage of new capacity. The literature on induced demand is extensive and the Regional Transportation Plan guidelines adopted by the California Transportation Commission acknowledge this now broadly accepted planning phenomenon. We strongly recommend that SCAG, AQMD and its member CTCs reconsider whether capacity expansion projects belong on a list of Transportation Control Measures, or whether there are other projects that will more effectively achieve the worthy goals of reducing vehicle use and emissions.</p>	<p>As discussed in Appendix IV-C, TCMs are projects and programs that reduce emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. TCMs in this plan include the following three main categories of transportation improvement projects and programs:</p> <ul style="list-style-type: none"> <li>• High occupancy vehicle (HOV) measures,</li> <li>• Transit and systems management measures, and</li> <li>• Information-based transportation strategies.</li> </ul> <p>To facilitate TCM tracking, TCMs are listed by project ID and project description as specifically set forth in the FTIP since TCM project inclusion in the FTIP is the means to track timely implementation. To avoid confusion that may arise from the project descriptions listed in Appendix IV-C, Attachment A, a footnote will be included that clarifies that the TCM is only that portion of the project that meets the definition of the TCM. For example, for a project that adds both mixed flow lanes and HOV lanes, only the HOV portion of the project is considered a TCM.</p>
<p><u>National Resources Defense Council (NRDC) Comment Letter dated September 5, 2012, page 6 of 6 (Comment KK-12):</u></p> <p><b>D. NRDC also Recommends Additional Efforts.</b></p>	<p>SCAG’s 2012-2035 RTP/SCS identifies opportunities to increase funding for active transportation. SCAG will continue to work with the County Transportation Commissions in the region to develop new policy strategies that can generate funding for transportation projects that support the goals identified in the 2012-2035 RTP/SCS. Further, at its July 5, 2012, SCAG’s Regional</p>

Attachment 3. SCAG Responses to Comments on Draft 2012 AQMP Appendix IV-C

Comments	Responses
<p>Page IV-C-8 references the \$22.1 billion the RTP will invest in arterials. For such a significant investment of resources, we believe an additional goal of the program should be, to create a network of slow-speed streets that are safer for bicyclists and pedestrians. New bike lanes are critical, but even with lanes many riders, particularly women and children, will not ride when the bike lane is on a high-speed street. Low speed streets make these clean, healthy, non-polluting modes of transportation accessible to more SCAG residents and SCAG should work with its member cities and CTCs to identify the best streets for these networks.</p>	<p>Council approved the development of an Active Transportation subcommittee, among 5 other subcommittees responsible for developing policy recommendations to implement the 2012-2035 RTP/SCS. This subcommittee will specifically be responsible for recommending to the SCAG’s Transportation Committee (TC) policies which implement the 2012-2035 RTP/SCS as it relates to Active Transportation. Policy recommendations approved by the TC will be forwarded to SCAG’s Regional Council for final review and approval. These anticipated, new SCAG policies may assist local jurisdictions and the County Transportation Commissions in initiating additional efforts and funding in support of active transportation.</p>
<p><u>National Resources Defense Council (NRDC) Comment Letter dated September 5, 2012, page 6 of 6 (Comment KK-13):</u></p> <p>On page IV-C-7, we recommend that SCAG supplement its adopted list of TSM strategies with improved data sharing. A plethora of transit-user apps has sprung up since the 2007 AQMP. High quality, real-time, easily-accessible transit vehicle departure and arrival information can help to leverage significant new transit investments with higher ridership. Releasing data is a low-cost way to leverage outside talent to improve usability of transit, biking, and walking.</p>	<p>The 2012-2035 RTP/SCS was intended to reflect the most feasible, practical and effective TSM Strategies, including Transit Automatic Vehicle Location (AVL), universal transit fare media, next vehicle arrival display etc. SCAG will consider updating the TSM Strategies list in the future to reflect the most current technology applications to transit services in the future RTP/SCS updates as necessary and appropriate.</p>

Comments	Responses
<p><u>Southern California Edison (SCE) Comment Letter dated August 31, 2012, page 4 (Comment Y-7):</u></p> <p>With regard to Appendix IV-C, Regional Transportation Strategy and Transportation Control Measures (TCMs), many of the strategies and TCMs improve efficiency of the existing system and would have no impact on SCE operations. However, the measures in Appendix IV-C call for more than \$150 billion in capital improvements (funded and unfunded) to the local transit, commuter, and high-speed rail and goods-movement systems (pages 7-8), many of which include a “zero or near-zero” emissions component. As noted above, this expansion of electric transportation would have an impact on the electric system and the need for new transmission, distribution and generation, and is yet another example of the need to address New Source Review reform. Another issue that is not clear from TCM Emissions Table 1 &amp; 2 is whether the District has accounted for emissions from the construction and operation of energy infrastructure to feed the increase in electric, natural gas, and other alternative fuels. While page 10 of the appendix recognizes the need for improved infrastructure planning and investment to support alternative-fueled vehicles, it does not discuss if any TCMs will be updated or amended to account for and support the development of the required infrastructure.</p> <p>SCAG is a strategic partner in a regional effort to accelerate fleet conversion to near-zero and zero-emission transportation technologies. A significant expansion of alternative-fuel infrastructure is also needed throughout the region to accommodate the anticipated increase in alternative-fueled vehicles. SCE is working with SCAG</p>	<p>Comment noted. By definition in the Clean Air Act, TCMs are projects and programs that reduce emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Per the U.S. EPA’s Transportation Conformity Regulations, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs.</p> <p>For the next South Coast Ozone SIP, SCAG will consider holding interagency consultation via SCAG’s Transportation Conformity Working Group to discuss whether monetary or non-monetary incentives to encourage infrastructure for zero and near-zero emission transportation could be considered as TCMs.</p>

Attachment 3. SCAG Responses to Comments on Draft 2012 AQMP Appendix IV-C

Comments	Responses
<p>and the District to develop a framework for the necessary infrastructure changes.</p> <p>SCE encourages the District to support development of infrastructure for alternative-fueled vehicles as part of future TCMs in the 2015 AQMP. Example locations include destination locations or locations such as park-and-ride lots where vehicles park for long period. Future TCMs could also include monetary or non-monetary incentives to encourage infrastructure for zero and near-zero emission transportation. Similarly SCE urges consideration of publicly car-share services to serve as a critical component to completing the “last mile” of trips taken by transit.</p>	

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**DATE:** January 3, 2013  
**TO:** Energy and Environment Committee (EEC)  
**FROM:** Huasha Liu, Director, Land Use and Environmental Planning, (213) 236-1838, [liu@scag.ca.gov](mailto:liu@scag.ca.gov)  
**SUBJECT:** Amendment to Contract No. 12-021-C1 with UCLA Luskin Center for Innovation

**EXECUTIVE DIRECTOR'S APPROVAL:** 

**RECOMMENDED ACTION:**  
For Information Only - No Action Required.

**EXECUTIVE SUMMARY:**  
*SCAG proposes to transfer \$31,000 of grant funds from staff expenditures to consultant expenditures for the purpose of developing more level of detail in the Southern California Plug-in Electric Vehicle (PEV) Readiness Plan. The South Coast Air Quality Management District (SCAQMD), SCAG's partner in this effort, will be contributing \$32,946 directly to the University of California Los Angeles (UCLA) Luskin Center for Innovation in additional funding for this effort.*

**STRATEGIC PLAN:**  
This item supports SCAG's Strategic Plan Goal 1: Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies; and Goal 4: Develop, Maintain and Promote the Utilization of State of the Art Models, Information Systems and Communication Technologies.

**BACKGROUND:**  
In June 2011, SCAQMD and SCAG, in conjunction with their regional partners applied for and received two (2) PEV readiness grants. The first grant, awarded by the U.S. Department of Energy (DOE) to the SCAQMD as the prime recipient, will result in the development of six (6) Regional PEV Readiness Plans throughout the state of California, including one for Southern California. SCAG executed a contract in April, 2012 with the UCLA Luskin Center for Innovation to conduct the necessary analysis and draft the PEV Readiness Plan.

In order to be more efficient with funding, SCAQMD has determined that the hosted workshops in the SCAG region satisfied one aspect of the grant requirements. Some of the SCAG staff funding allocated for outreach and workshops can be reallocated to add funds for consultant efforts. The reallocation will allow the consultant to develop recommendations with a higher level of detail that will benefit member agencies interested in implementing the recommendations. For example, the new analysis will provide more information on barriers to implement PEV charging and provide recommendations concerning EV charging in multi-family units.

The proposed contract amendment with the UCLA Luskin Center for Innovation is being considered for approval today by the Executive/Administration Committee and Regional Council.

**FISCAL IMPACT:**  
SCAQMD grant agreement modification would transfer \$31,000 in funds (under WBS# 13-225.SCG01641.03) from staff expenditures to consultant expenditures.

**ATTACHMENT:**  
None