



SOUTHERN CALIFORNIA  
ASSOCIATION OF GOVERNMENTS  
900 Wilshire Blvd., Ste. 1700  
Los Angeles, CA 90017  
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Linda Parks, Ventura County

Transportation  
Curt Hagman, San Bernardino  
County

## MEETING OF THE

# TECHNICAL WORKING GROUP

*Thursday, September 20, 2018*  
*10:00 a.m. – 12:00 p.m.*

#### SCAG OFFICES

900 Wilshire Blvd., Ste. 1700  
Room Policy B  
Los Angeles, CA 90017  
(213) 236-1800

### HOW TO PARTICIPATE IN MEETING ON NEXT PAGE

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Arnold San Miguel at (213) 236-1925 or via email at [sanmiguel@scag.ca.gov](mailto:sanmiguel@scag.ca.gov). Agendas & Minutes for the Technical Working Group are also available at: [www.scag.ca.gov/committees](http://www.scag.ca.gov/committees)

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## How to Participate

### **In Person**

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**SCAG Downtown Office Policy B**  
900 Wilshire Blvd., 17<sup>th</sup> Floor  
Los Angeles 90017  
213-236-1800

### **Videoconference**

#### **San Bernardino County**

1170 West 3<sup>rd</sup> Street, Suite 140  
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#### **Riverside County**

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#### **Imperial County**

1405 North Imperial Ave, Suite 1  
El Centro, CA 92443  
Telephone: (760) 353-7800

#### **Ventura County**

950 County Square Drive, Suite 101  
Ventura, CA 93003  
Telephone: (805) 642-2800

### **Web Meeting**

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Join from PC, Mac, Linux, iOS or Android:  
<https://zoom.us/j/142774637>

### **Teleconference**

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**Telephone:**  
**Dial:** 1-669 900 6833 or 1-646-558-8656  
**Meeting ID:** 142 774 637



# Technical Working Group

September 20, 2018

10:00 a.m. – 12:00 p.m.

**SCAG Downtown Office – Policy Room B**

900 Wilshire Blvd., 17<sup>th</sup> Floor

Los Angeles 90017

## Agenda

### Introductions

### Receive & File

Potential Strategies for Facility-Based Mobile Source Measures Adopted in 2016 South Coast Air Quality Management Plan (AQMP)

### Information Items

- |  |                           |            |
|--|---------------------------|------------|
| 1. Project Update Process  | N. Amatya                 |            |
| 2. Draft 2020 RTP/SCS Schedule                                       | J. Asuncion               | Attachment |
| 3. Environmental Justice Working Group Update                        | Anita Au                  | Attachment |
| 4. Preliminary Draft 2020 RTP/SCS Performance Measures               | Ping Chang<br>Mike Gainor | Attachment |
| 5. ARB Guidelines for SCS Evaluation & SB 150 Report – Status Update | Ping Chang                |            |



## **Technical Working Group**

# **Receive and File**



Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 6, 2018

**To:** Community  
Economic & Human Development Committee (CEHD)  
Energy & Environment Committee (EEC)  
Transportation Committee (TC)  
Regional Council (RC)  
**From:** Rongsheng Luo, Program Manager II, Compliance &  
Performance Monitoring, (213) 236-1994, LUO@scag.ca.gov  
**Subject:** Potential Strategies for Facility-Based Mobile Source Measures  
Adopted in 2016 South Coast Air Quality Management Plan  
(AQMP)

EXECUTIVE DIRECTOR'S  
APPROVAL

**RECOMMENDED ACTION FOR EEC:**  
For Information Only – No Action Required

**RECOMMENDED ACTION FOR CEHD, TC AND RC:**  
Receive and File

**STRATEGIC PLAN:**  
This item supports the following Strategic Plan Goal 2: Advance Southern California’s policy interests and planning priorities through regional, statewide, and national engagement and advocacy.

**EXECUTIVE SUMMARY:**  
*Since the November 2, 2017 informational staff report to the RC and policy committees CEHD,EEC, and TC, the South Coast Air Quality Management District (SCAQMD) staff has been continuing implementation of the facility-based mobile source measures adopted in the 2016 South Coast AQMP. Mr. Ian MacMillan, SCAQMD Planning & Rules Manager, will present a summary of emission reduction strategies that SCAQMD will pursue for sources covered by 2016 AQMP Facility-Based Mobile Source Measures including airports, marine ports, new and redevelopment projects, rail yards, and warehouses.*

**BACKGROUND:**  
As reported previously, the Final 2016 South Coast Air Quality Management Plan (AQMP) includes five facility-based mobile source measures seeking emission reductions from new development and redevelopment projects, marine ports, railyards, warehouses, and commercial airports. The SCAQMD Governing Board and the California Air Resources Board also have given additional directions to their respective staff regarding commercial airports and large freight facilities at their respective adoptions of the 2016 South Coast AQMP in March 2017.

In implementing the 2016 AQMP and the Boards’ directions, the SCAQMD staff formed five working groups in May 2017, and have been holding multiple meetings of the working groups as well as

developing both voluntary and regulatory measures in a process that has included extensive public input.

At its meeting on May 4, 2018, the SCAQMD Governing Board voted to direct its staff to further develop voluntary and regulatory measures to reduce emissions from ports, warehouses, airports, rail yards, and new development and redevelopment projects.

Several SCAG staff from the relevant subject areas have been actively participating in these working group meetings and providing input within their respective areas. SCAG staff will continue to participate in and closely monitor the working group process and will report back to the Regional Council and Policy Committee(s) as appropriate.

**FISCAL IMPACT:**

Work associated with this item is included in the current FY18-19 Overall Work Program (025.SCG0164.01: Air Quality Planning and Conformity).

**ATTACHMENT(S):**

1. SCAQMD PowerPoint Presentation Facility-based Mobile Source Measures 090618

# Potential Strategies for Facility-Based Mobile Source Measures Adopted in 2016 South Coast Air Quality Management Plan (AQMP)



SCAG Energy and Environment Committee  
September 6, 2018

# Background



- Ø 5 Facility-Based Mobile Source Measures (FBMSM) included in 2016 AQMP
  - Ø Airports, New/Redevelopment, Ports, Railyards, Warehouses
- Ø Primary goal of FBMSM is to reduce NOx emissions
  - Ø Assists in implementing CARB's Mobile Source Strategy "Further Deployment" control measures
  - Ø Measures need to be defined and in place 3 years before attainment deadline
  - Ø Mobile source strategies from CARB and SCAQMD are meant to complement each other





# Board Approved Approach - Warehouses

## Potential Voluntary Measures

- Ø New CEQA Air Quality Mitigation Fund
- Ø Warehouse Guidance Document (with CARB)
- Ø Explore Green Delivery options (e.g., opt-in fee to fund cleaner fleet)

## Potential Regulatory Measures

- Ø Begin Indirect Source rulemaking activities
- Ø Interim Analyses
  - Ø Anticipated Emission Reductions
  - Ø Cost of Compliance
  - Ø Economic Impact Study + 3<sup>rd</sup> party review
  - Ø Industrial Real Estate Market Impact
  - Ø Technological Availability

## Reporting Frequency to Board

- Ø Report to full Governing Board every 3-6 months



# Board Approved Approach - Rail Yards

## Potential Voluntary Measures

Ø Staff to work with San Bernardino County Supervisor Rutherford to explore potential for new agreements or MOUs beyond existing 1998 & 2005 agreements

## Potential Regulatory Measures

Ø Begin Indirect Source rulemaking activities  
Ø If ISR approved by Board, harmonization at federal level with ICCTA likely required before rule is enforceable

## Reporting Frequency to Board

Ø Review progress every 9 months with Mobile Source Committee



# Board Approved Approach - Ports

## Potential Voluntary Measures

- Ø Pursue individual MOUs on specific Clean Air Action Plan measures
- Ø Pursue introduction of cleaner vessels
  - Ø Demonstrations, incentives, etc.

## Potential Regulatory Measures

- Ø Do not pursue ISR at this time

## Reporting Frequency to Board

- Ø Review progress every 6-9 months with Mobile Source Committee

# Board Approved Approach - New/Redevelopment



## Potential Voluntary Measures

- Ø New CEQA Air Quality Mitigation Fund
- Ø Update SCAQMD CEQA Handbook
- Ø Continue to work with Public Utilities Cmsn., Energy Cmsn., and utilities to expand charging/alt-fueling infrastructure

## Potential Regulatory Measures

- Ø Delay consideration of beginning Indirect Source rulemaking activities until additional analysis is completed
- Ø Continue to work with stakeholders
  - Ø Rule Concepts
  - Ø Timelines
  - Ø Preliminary estimates of costs/benefits

## Reporting Frequency to Board

- Ø Report to full Governing Board in September
- Ø Quarterly reporting thereafter



# Board Approved Approach - Airports

## Potential Voluntary Measures

- Ø Pursue individual MOUs with each airport
- Ø Airport-specific Clean Air Action Plans
- Ø Include explicit process for pursuing FAA VALE/ZEV funding

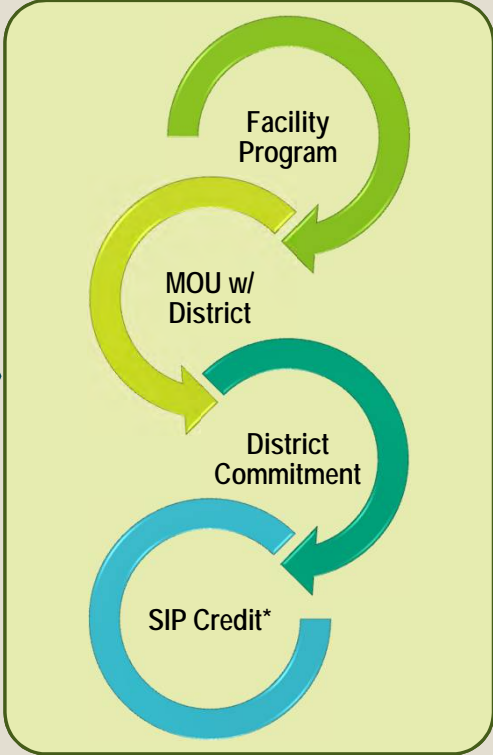
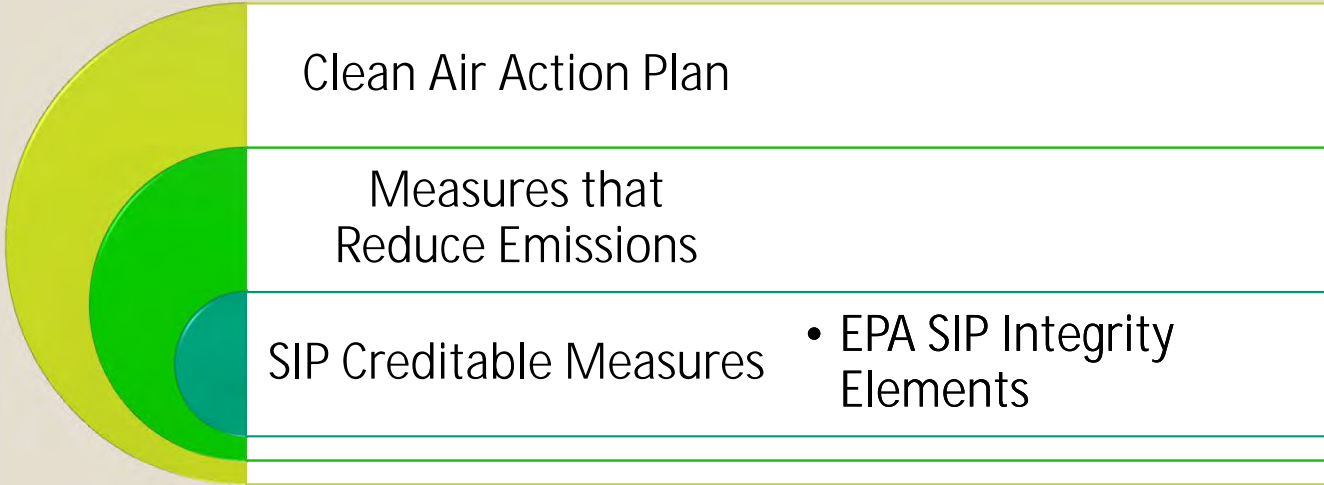
## Potential Regulatory Measures

- Ø Do not pursue ISR now

## Reporting Frequency to Board

- Ø Review progress every 9 months with Mobile Source Committee

# Potential MOU Approach for Clean Air Action Plans

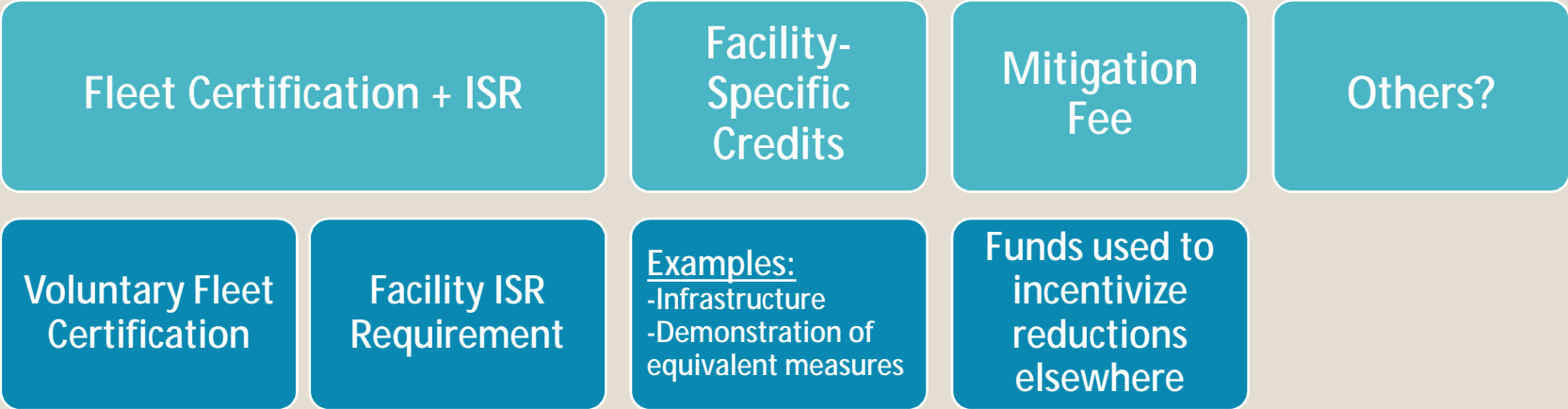


Ø MOU can include specific measures or emission targets  
 Ø With MOU, SCAQMD Board would commit to SIP-creditable emission reductions, or alternative measures if Facility Program/MOU unsuccessful

\*Subject to EPA Approval

# Potential Regulatory Approach

## Multiple Compliance Options\*



\*No compliance option would intrude on local agencies' land use authority

# Staff Lead Contacts

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Ø Warehouses & Rail Yards - Ian MacMillan (909) 396-3244 [imacmillan@aqmd.gov](mailto:imacmillan@aqmd.gov)

Ø Ports & Airports - Zorik Pirveysian (909) 396-2431 [zpirveysian@aqmd.gov](mailto:zpirveysian@aqmd.gov)

Ø New/Redevelopment - Jillian Wong (909) 396-3176 [jwong1@aqmd.gov](mailto:jwong1@aqmd.gov)





## **Technical Working Group**

# **Agenda Item 2**

## **Preliminary Schedule/Milestones for the 2020 RTP/SCS**

1. FHWA/FTA Certifies conformity on 2020 RTP/SCS and CARB evaluates/approves SCAG's proposed GHG reduction targets June 2020
2. RC Adopts 2020 RTP/SCS April 2020
3. Public Comment period on the Draft 2016 RTP/SCS Oct. 2019-Jan.2020
4. Release Draft 2020 RTP/SCS for Public Review Oct. 2019
5. Complete Transportation Conformity analysis Aug. 2019
6. Complete technical and outreach work on EJ Aug. 2019
7. Complete technical work (Finance Plan, Perf. Evals, GHG calcs) June 2019
8. Conduct county specific workshops on the Draft 2020 RTP/SCS as required by SB 375 April-June 2019
9. Approve Performance Measures for 2020 RTP/SCS by RC/Policy Com. April 2019
10. SCAG submits its SCS technical methodology to ARB April 2019
11. Delegated subregions to complete their SCS Mar. 2019
12. Follow up on transportation projects, strategies and programs to be considered in the Draft 2020 RTP/SCS to address contingencies such as potential repeal of SB 1. Mar. 2019
13. Develop, define, and refine Alternatives for the 2016 RTP/SCS Jan. 2019-Mar. 2019
14. Seek Policy direction from Policy Committees and RC on major policy initiatives and scope of PEIR Sept. 2018-June. 2019
15. ABM base year validation and peer review Dec. 2018
16. Deadline for CTCs to provide initial input on transportation projects, strategies and programs to be considered in the Alternatives Nov. 2018
17. Local input on SCAG's Growth Forecast and development of local scenario planning Options Jan. 2018-Sept. 2018



## **Technical Working Group**

# **Agenda Item 3**



## ENVIRONMENTAL JUSTICE WORKING GROUP

May 17, 2018

2:30 pm – 4:30 pm

Policy Committee Room B

SCAG's Main Office

900 Wilshire Boulevard, Suite 1700, Los Angeles, CA 90017

### AGENDA

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1. **WELCOME AND SELF INTRODUCTIONS**

*Ping Chang, Acting Manager, SCAG*

2. **SB 1000 IMPLEMENTATION GUIDANCE**

*Elizabeth Baca, Senior Health Advisor, Governor's Office of Planning and Research*

3. **2016 RTP/SCS ENVIRONMENTAL JUSTICE TECHNICAL ANALYSIS OVERVIEW**

*Kimberly Clark, Regional Planner Specialist, SCAG*

*Tom Vo, Associate Regional Planner, SCAG*

4. **MEASURES MATTER: ENSURING EQUITABLE IMPLEMENTATION OF LA COUNTY MEASURES**

*Madeline Wander, Senior Data Analyst, USC Program for Environmental and Regional Equity (USC PERE)*

5. **2020 RTP/SCS GOALS AND GUIDING POLICIES**

*Anita Au, Associate Regional Planner, SCAG*

6. **EJWG TOPIC OUTLOOK AND SCHEDULE DISCUSSION**

*Anita Au, Associate Regional Planner, SCAG*

#### TO PARTICIPATE VIA WEB CONFERENCING

To join the meeting: <https://zoom.us/j/520229852>

Dial In: 1-646-558-8656

Meeting ID: 520 229 852

#### TO PARTICIPATE VIA VIDEOCONFERENCING

Video conferencing will be available at SCAG's regional offices in Imperial, Orange, Riverside, San Bernardino, and Ventura county videoconference sites. *Space is limited, so please RSVP here:* <https://scag.wufoo.com/forms/environmental-justice-working-group-meeting/>

SCAG, in accordance with the Americans with Disabilities Act, is committed to providing special accommodations to those who are interested in participating in the workshop. SCAG is also committed to helping those with limited proficiency in the English language by providing translation services at the workshop in accordance with Title VI of the Civil Rights Act. We ask that you provide your request for special accommodations or translation services at least 72 hours prior to the meeting so that SCAG has sufficient time to make arrangements. Please contact Anita Au, Associate Regional Planner, at [au@scag.ca.gov](mailto:au@scag.ca.gov) or by calling (213) 236-1874.



## ENVIRONMENTAL JUSTICE WORKING GROUP

May 17, 2018

2:30 pm – 4:30 pm

Policy Committee Room B

SCAG's Main Office

900 Wilshire Boulevard, Suite 1700, Los Angeles, CA 90017

### MEETING SUMMARY

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#### 1. WELCOME AND SELF INTRODUCTIONS

*Ping Chang, Acting Manager at SCAG, welcomed all participants.*

**SCAG Headquarters:**

*Celia Andrade, PACE, A3PCON EJ Committee  
Elizabeth Baca, OPR  
Jason Douglas, LADCP  
Jay Eastman, City of Riverside  
Demi Espinoza, Safe Routes National Partnership  
Steve Gerhardt, Walk Long Beach  
Jo Kay Ghosh, SCAQMD  
Lily House-Peters, CSULB  
Lori Huddleston, LA Metro  
Enrique Huerta, From Lot to Spot  
Jazmine Johnson, PSR-LA  
Bryn Lindblad, Climate Resolve  
Nicolas Marautz, UC Irvine  
Jesse Marquez, Coalition for a Safe Environment  
Mercedes Meneses, LA Metro  
Christine Montes, LA County Dept. of Public Health  
Andres Ramirez, Pacoima Beautiful  
Brian Robey, Inland Empire RCD  
Cody Rosenfield, CCA  
Janet Scully, LA County Dept. of Public Health  
Amanda Staples, Investing In Place  
Madeline Wander, USC PERE  
Jessica Wuyek, PlaceWorks*

**Webinar:**

*Deborah Allen, City of Rancho Cucamonga  
Yenni Diaz, Orange County Environmental Justice  
Scott Rigsby, San Bernardino Department of Public Health  
Bill Sadler, Public Health Alliance of Southern California*

**SCAG Regional Offices:**

*Clarice Burden, City of Ontario  
Siri Champion, Michael Baker International  
Gustavo Gonzalez, City of Anaheim  
Ruth Lorentz, City of Big Bear Lake  
Karen Thompson, City of Ontario*

**SCAG Staff:**

*Courtney Aguirre  
Kome Ajise  
Anita Au  
Joseph Briglio  
Ping Chang  
Kimberly Clark  
Lauren Colonna  
Mike Gainor  
Mike Jones  
Rachel Krusenoski  
Houston Laney  
Philip Law  
Ellen JiSu Lee  
David Salgado  
Arnold San Miguel  
Tom Vo  
Frank Wen*



## 2. SB 1000 IMPLEMENTATION GUIDANCE

*Elizabeth Baca, Senior Health Advisor, Governor's Office of Planning and Research (OPR)*

### Presentation Summary:

- Effective January 1, 2018, any local jurisdiction with disadvantaged communities are required to consider environmental justice during the General Plan Update process
- Local jurisdictions will need to develop an environmental justice element OR address environmental justice related goals, policies, and objectives
- Community input and partnership will be important throughout the process
- SB 1000 is a starting point, local jurisdictions can choose which issues to include and discuss in their General Plans or Environmental Justice Elements as defined by the community such as active living and recreation, food systems, social cohesion and safety, healthy housing, environmental health, etc.
- An additional guidance draft will be coming out from OPR in summer/fall 2018

### Comments and Questions:

- Question: Who will implement SB 1000 requirements? Can SCAG oversee/enforce for compliance?  
Answer: SCAG staff is hoping EJWG members can be involved in implementation so jurisdictions are aware of the implementation strategy guidance contained in SB 1000, such as proper outreach strategies.

## 3. 2016 RTP/SCS ENVIRONMENTAL JUSTICE TECHNICAL ANALYSIS OVERVIEW

*Kimberly Clark, Regional Planner Specialist, SCAG*

*Tom Vo, Associate Regional Planner, SCAG*

### Presentation Summary:

- Per federal requirement, SCAG, as the MPO for the region, is required to conduct an environmental justice analysis of the RTP/SCS, which includes defining action and study area, developing community profile, analyzing impacts, identifying solutions (and avoid, minimize, mitigate impacts or enhance EJ community conditions), and documenting findings
- The 2016 RTP/SCS EJ outreach process included five public workshops (in November 2014, April 2015, and August 2015), eight focus groups (in July 2015), and two interviews (in July 2015) with SCAG stakeholders throughout the region
- In the 2016 RTP/SCS EJ Appendix, SCAG staff analyzed Environmental Justice Areas, SB 535 Disadvantaged Areas, and Communities of Concern
- New performance indicators in the 2016 RTP/SCS EJ Appendix include geographic distribution of transportation investments, active transportation hazards, public health impacts, and climate vulnerability

### Comments and Questions:

- Question: Did any displacement triggers/trends come up during the analysis process?  
Answer: Yes. The 2016 EJ Appendix is the second round of analysis that looked that gentrification, specifically around transit stops. SCAG staff included analysis of half mile areas around rail transit stops and HQTAs and found that the minority household growth rate is lower compared to the region.
- Question: We know pressures that are driving gentrification and displacement are happening at the macro-level, what were some discussions that were held around that?  
Answer: Based on input received from SCAG's public outreach workshops, gentrification is not necessarily a bad thing because it means that communities are benefiting from better infrastructure but displacement is because residents and businesses can no longer afford to live or work in these communities. Affordable housing close to transit areas can be a



long-term solution to displacement. It is also encouraging to see best practices like LA Metro's affordable housing set aside.

- Question: Does SCAG do any analysis similar to Seattle's Displacement Index?  
Answer: No but one of the purposes of the EJWG is to gather input and suggestions such as this to look into further and potentially incorporate into SCAG's RTP/SCS and EJ Appendix.
- Comment: SCAG needs to keep up with technological advancements that can help reduce GHG emissions and will work with stakeholders to stay well informed of these advancements.

#### 4. MEASURES MATTER: ENSURING EQUITABLE IMPLEMENTATION OF LA COUNTY MEASURES

*Madeline Wander, Senior Data Analyst, USC Program for Environmental and Regional Equity (USC PERE)*

##### Presentation Summary:

- Evidence shows that regions that work toward equity have stronger and more resilient economic growth so equity should be a vital part of urban planning; Equity is good for growth and inequality is bad for the economy
- Ways to achieve just growth include centralizing knowledge and data, having common regional destinies, being action oriented, pursuing multi-issue framing and relationship building that builds regional resilience, and acknowledging legitimacy of others' viewpoints
- The report, *Measures Matter*, explores how Measures M and A can be equitably implemented in LA County; Defining equitable implementation includes three parts: prioritize investments that close racialized and other gaps, involve authentic partnership throughout the process, and mitigate disparities likely to emerge in the future
- Some principles discussed in the report to accomplish equitable implementation include emphasizing equity, supporting grassroots groups and leadership development, sharing decision making amongst stakeholders, take collaborative approaches to outreach, linking equity to funding opportunities, linking equity to other programs and policies, integrating across siloes, and providing on-going evaluation

##### Comments and Questions:

- Question: How can we foster continuous community voices in advisory groups?  
Answer: The composition of advisory groups is crucial so it's important to include community leaders (from advocacy group, community based organizations, etc.) in advisory groups but it may not be realistic to expect them to attend all meetings without some kind of incentive or compensation for their time. Community input collected from *Measures Matter* also included recommendations for funding this type of participation.

#### 5. 2020 RTP/SCS GOALS AND GUIDING POLICIES

*Anita Au, Associate Regional Planner, SCAG*

##### Presentation Summary:

- SCAG is currently in the process of developing an updated long-range plan, the 2020 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) and updating the plan's overarching goals and guiding policies
- SCAG is updating the plan's overarching goals and guiding policies to ensure alignment with SCAG's recently updated Strategic Plan which calls for enhancing the region's economy, resilience, and adaptability, with state and federal planning factors and goals that also touch upon resiliency and social equity, and with other MPO goals which include similar categories like economy, mobility, environment, and health and complete communities
- The Draft 2020 RTP/SCS goals and guiding policies includes discussion on equitable and adaptable communities, which is related to environmental justice
- Any comments, questions, or suggestions can be forward to Ms. Courtney Aguirre ([aguirre@scag.ca.gov](mailto:aguirre@scag.ca.gov) or (213) 236-1804) by Wednesday, June 13, 2018



Comments and Questions:

- No questions

## 6. EJWG TOPIC OUTLOOK AND SCHEDULE DISCUSSION

*Anita Au, Associate Regional Planner, SCAG*

Presentation Summary:

- The proposed goals and objectives of the Environmental Justice Working Group (EJWG) include providing a platform for stakeholders to facilitate continuous opportunities for discussion, discussing and gathering input from SCAG stakeholders, and informing participants and supporting local implementation
- The next EJWG meeting is scheduled for August 16, 2018 and the tentative agenda includes further discussion on last cycle's EJ technical analysis approach (with a breakout discussion to follow) and discussion on the relationship between public health and environmental justice
- The tentative schedule for the 2020 RTP/SCS EJ Outreach Process includes the EJ Outreach Kickoff Workshop in Fall 2018, at least two EJ Outreach Workshops in Winter 2018 or Spring 2019, EJ Outreach Focus Groups and Interviews in Spring/Summer 2019, and at least two more EJ Outreach Workshops in Summer 2019

Comments and Questions:

- Question: As presented, there will be discussion between public health and environmental justice but will there be opportunities to discuss linkages between environmental justice and goods movement?  
Answer: It has been discussed amongst SCAG staff and we intend on bringing in other departments and topic areas into the EJWG meetings. The purpose of having these discussion topics or themes is to also involve other departments within SCAG to present and work together with this working group to address overlap between EJ and the respective topic area.
- Comment: The first EJWG meeting seemed a bit rushed with so many presentations so one suggestion is to allocate more time for discussion and to get more feedback from the regional offices.





# SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS ENVIRONMENTAL JUSTICE WORKING GROUP

**August 9, 2018**

**9:30 am – 12:00 pm**

**Regional Council Board Room  
SCAG's Main Office  
900 Wilshire Blvd., Ste. 1700, Los Angeles, CA 90017**

## **AGENDA**

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**1. WELCOME AND SELF INTRODUCTIONS**

*Ping Chang, Acting Manager, SCAG*

**2. 2016 RTP/SCS ENVIRONMENTAL JUSTICE OUTREACH PROCESS: DETAILED OVERVIEW**

*Anita Au, Associate Regional Planner, SCAG*

**3. 2016 RTP/SCS ENVIRONMENTAL JUSTICE TECHNICAL ANALYSIS: DETAILED OVERVIEW**

*Research and Analysis Department Staff*

**4. INTRODUCTION AND UPDATES ON AB 617**

*Air District Representatives*

**5. BREAKOUT DISCUSSION**

*Enhancements and New Strategies for SCAG's EJ Outreach Process*

*Enhancements and New Strategies for SCAG's EJ Technical Analysis*

**TO PARTICIPATE VIA WEB CONFERENCING**

To join the meeting: <https://zoom.us/j/666440157>

Dial-In: 1 (669) 900-6833

Meeting ID: 666 440 157

**TO PARTICIPATE VIA VIDEOCONFERENCING**

Video conferencing will be available at SCAG's regional offices in Imperial, Orange, Riverside, San Bernardino, Ventura counties and in the Palmdale videoconference site. *Space is limited, so RSVP is required. Please RSVP here: <https://bit.ly/2tXQYZu>*

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# SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS ENVIRONMENTAL JUSTICE WORKING GROUP

## ENVIRONMENTAL JUSTICE WORKING GROUP

August 9, 2018

9:30 am – 12:00 pm

Regional Council Board Room

SCAG's Main Office

900 Wilshire Boulevard, Suite 1700, Los Angeles, CA 90017

## MEETING SUMMARY

---

### 1. WELCOME AND SELF INTRODUCTIONS

*Ping Chang, Acting Manager at SCAG, welcomed all participants.*

**SCAG Headquarters:**

*Deborah Allen, City of Rancho Cucamonga  
Leeor Alpern, SCAQMD  
Stephanie Cadena, Gateway Cities COG  
Jason Douglas, LADCP  
Marissa Ferrell, City of Inglewood  
Jo Kay Ghosh, SCAQMD  
Charles Guiam, City of Anaheim  
Martial Haprov, MDAQMD  
Natalie Hernandez, Climate Resolve  
Lily House-Peters, CSULB  
Jazmine Johnson, PSR-LA  
Zully Juarez, USC Environmental Health Center  
Josh Lee, SBCTA  
Laurene Lopez, Metrolink  
Jesse Marquez, Coalition for a Safe Environment  
Tim Mok, The City Project  
Nelly Nieblas, Breathe LA  
Sylvia Novoa, Metrolink  
Ryan Orr, MDAQMD  
Brian Robey, Inland Empire RCD  
Cody Rosenfield, Coalition for Clean Air  
Janet Scully, LA County Dept. of Public Health  
Gail Shiomoto-Lohr, City of Mission Viejo  
Amanda Staples, Investing in Place  
Dylan Thomason, The City Project  
Karen Thompson, City of Ontario  
Karo Torossical, Office of Councilmember Paul Krekorian  
Miguel Vazquez, RUHS-PH  
Jean Ward, Civic Solutions*

**SCAG Regional Offices:**

*Clay Downing, County of Ventura Planning Dept.  
Miguel Hernandez, Comite Civico del Valle  
Marven Norman, Inland Empire Biking Alliance  
Mike Villegas, VCAPCD*

**Webinar:**

*Clarice Burden, City of Ontario  
Isidro Figueroa, City of Oxnard  
Steve Gerhardt, Walk Long Beach  
Cutis Gibbs, Community Action Partnership OC  
Susan Kim, City of Anaheim  
Scott Kutner, City of Santa Ana  
Rebecca Marsile, OCHCA  
Trudy Raymundo, San Bernardino Dept. of Public Health  
Scott Rigsby, San Bernardino Department of Public Health  
Bill Sadler, Public Health Alliance of Southern California  
Carlene Saxton, City of Palmdale  
Samantha Welch, City of Moreno Valley*

**SCAG Staff:**

<i>Kome Ajise</i>	<i>Amina Karwa</i>
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<i>Joseph Briglio</i>	<i>Roland Ok</i>
<i>Ping Chang</i>	<i>David Salgado</i>
<i>John Cho</i>	<i>Arnold San Miguel</i>
<i>Kimberly Clark</i>	<i>Jung Seo</i>
<i>Lauren Colonna</i>	<i>Tom Vo</i>
<i>Mike Gainor</i>	<i>Ping Wang</i>
<i>Ma'Ayn Johnson</i>	



## 2. 2016 RTP/SCS ENVIRONMENTAL JUSTICE OUTREACH PROCESS: DETAILED OVERVIEW

*Anita Au, Associate Regional Planner, SCAG*

### Presentation Summary:

- During the 2016 RTP/SCS EJ outreach process, SCAG conducted five (5) EJ public workshops: four were held in the evening to accommodate work schedules and two were held outside of SCAG's LA office to accommodate more stakeholders
- SCAG also conducted eight (8) focus groups with a total of 28 participants, representing 21 different organizations to obtain more feedback from EJ stakeholders.
- Some of the suggestions from the focus groups are currently being implemented like partnering with trusted local organizations and forming an EJ Working Group. Other suggestions include providing clear agendas well in advance of overall outreach process, maintain and update outreach database, and tailor meeting content to local communities to improve local interest and participation.

### Comments and Questions:

- Question: Does SCAG staff feel that there was a good representation of the organizations that participated for the focus groups? Are there any particular gaps you'd want to address in this 2020 process?  
Answer: The consultant that was hired to help lead the focus groups also spent a lot of time developing the contact and participation list so the focus group participants present a good representation of the region and issues, as shown in the list of organizations in the summary report.
- Question: Regarding partnering with community based organizations (CBOs), what should CBOs do if they want to partner with SCAG to further their EJ efforts?  
Answer: SCAG staff welcome any community leaders and community groups that want to partner to hold any meetings or workshops and highly encourage that. But SCAG staff is also looking from the working group to help identify other community leaders and groups that haven't been involved with the EJWG to partner with them and bring them into the conversation.

## 3. 2016 RTP/SCS ENVIRONMENTAL JUSTICE TECHNICAL ANALYSIS: DETAILED OVERVIEW

*Kimberly Clark, Regional Planner Specialist, SCAG; Ping Wang, Regional Planner Specialist, SCAG; John Cho, Senior Regional Planner, SCAG*

### Presentation Summary:

- In the climate vulnerability analysis, SCAG staff identified areas that will likely incur negative impacts resulting from climate change in four key areas: areas vulnerable to sea level rise, high fire threat areas, flood hazard zones, and areas with substandard housing.
- The climate vulnerability analysis also included best practices on potential climate adaptation policies and their associated impact on EJ populations in the areas of spatial, financial, and health.
- The emissions impacts analysis included examining air quality impacts for particulate matter and carbon monoxide of the RTP/SCS at the regional and community levels and examining air quality impacts of the RTP/SCS for areas in close proximity to highways (500 ft buffer of freeways).
- Overall findings in the emissions impacts analysis show that there are improvements in reductions of PM2.5 and CO.



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- In the gentrification and displacement analysis, SCAG staff looked at high quality transit areas (HQTA), transit oriented communities (TOC; ½ mile zones that surround rail transit stations), and overlapping areas with SCAG’s environmental justice areas, communities of concern, disadvantaged communities, urban and rural areas and analyzed their growth (population and household), economies, and equity and sustainability of the areas.
- Although further investigation is needed, growth trends identified in the analysis may serve as the initial evidence of gentrification and displacement.

### Comments and Questions:

- Question: Is there a monitoring program in place for any of the performance indicators (i.e. emissions, gentrification or displacement) or do you just update the data with each RTP?  
Answer: SCAG currently only updates the data every four years for the RTP/SCS process but SCAG staff thinks that is a very good idea to have continuous monitoring. In regards to emissions monitoring, SCAQMD and other air districts provides a network of regional monitors that tackles air quality issues regionally. In regards to community level emissions monitoring, we will talk more about that with the AB 617 discussion.
- Comment/Question: According to your presentation on gentrification, SCAG staff doesn’t indicate if the findings support the notion that gentrification is happening. SCAG staff has done EJ analysis around transit areas, TODs and corridors but there are other factors that impact gentrification so what are some techniques your staff can utilize to conduct further analysis? And lastly it would be interesting to correlate SCAG’s EJ analysis with foreclosures and evictions.  
Answer: SCAG staff agrees that we need to understand factors of displacement that could be causing the population trends shown in the EJ analysis. SCAG’s EJ analysis indicates that populations in the transit oriented communities (TOCs) are not experiencing the same growth as compared to the region (i.e. median income, seniors, etc.). It is too soon to tell but indicators show, with statistical significance, that there are areas of concern in regards to gentrification and displacement.
- Comment: There have not been any public health studies done showing a parallel improvement in public health because of data gaps. SCAG needs to look at particulate matter that is less than 2.5 microns (i.e. 1.0 micron ultrafine) and conduct a health impact assessment and public health baseline to monitor for improvements.
- Question: City of Los Angeles is considering expanding the radii around freeways from 500 feet to 1000 feet. How will SCAG address that?  
Answer: SCAG staff conducted our EJ analysis in the 2016 RTP/SCS for a 500 foot buffer but we have completed analysis on 1000 foot buffers in the 2008 RTP so that will not be an issue for future analysis.

#### 4. INTRODUCTION AND UPDATES ON AB 617

*Jo Kay Ghosh, Health Effects Officer, SCAQMD; Mike Villegas, Air Pollution Control Officer/Executive Officer, VCAPCD; Ryan Orr, Community Relations and Education Supervisor, MDAQMD; Martial Haprov, Community Relations and Education Specialist, MDAQMD; Anita Au, SCAG presenting on behalf of Belen Leon, AB 617 Contact, ICAPCD*

### Presentation Summary:

- AB 617 requires the California Air Resources Board (CARB) to develop a monitoring planning for the state that is community centered. Key elements of AB 617 include community air monitoring, community emission reduction plans, easier access to emissions data, clean technology investments, and best emission controls.



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- South Coast Air Quality Management District (SCAQMD) held ten (10) community meetings, one (1) technical workshop, two (2) EJCP meetings, nine (9) community meetings hosted by other organizations and elected officials, 25 government agency meetings, workshops, advisory groups, and staff briefings, one (1) media interview, and three (3) academic presentations.
- Key input from SCAQMD outreach include identifying air pollution sources (diesel sources, oil production and processing, and landfills, scrap yards, and hazardous waste sites), areas of concern (schools near air pollution sources/industrial areas, concentration of industries, and green spaces), and population factors (density, low income, communities of color, access to health care, asthma and cancer rates, education levels, and children and elderly).
- Ventura County Air Pollution Control District (VCAPCD) held various meetings and workshops to gather input necessary for AB 617 implementation but have encountered issues with an aggressive timeline which results in a lack of public input from some disadvantaged communities.
- Next steps from VCAPCD include forming Community Steering Committee(s), additional efforts to contact the public in all disadvantaged communities, coordinating with NGOs on Community Monitoring and Outreach, and developing a BARCT implementation schedule by January 1, 2019.
- Mojave Desert Air Quality Management District (MDAQMD) held one (1) community open house and received positive community feedback and one community survey on project priorities but it is anticipated that no communities in the MDAQMD jurisdiction will be selected in the first few rounds of the AB 617 community identification process.
- MDAQMD will continue to hold additional workshops and have purchased 40 Purple Air Sensors (twelve have been deployed) for community air monitoring.
- Antelope Valley Air Quality Management District's (AVAQMD) outreach process included utilizing a field-visit/outreach method for presentations instead of district-hosted workshops, council/group presentations to allow for larger audiences (tallied nearly 300 attendees from all presentations) and received highly positive feedback from individual presentations.
- Next steps for AVAQMD include a joint partnership with ARTC to study PM 10 and PM2.5 as a source of severe respiratory problems and purchasing and placing 10 Purple Air Sensors from CARB.
- Imperial County Air Pollution Control District (IMAPCD) conducted two workshops that were well attended and gathered feedback including concerns regarding paving projects at school parking lots, community linkage, lack of educational programs, enhancing agricultural burning rules, lack of education and awareness programs, indoor/outdoor filtration, and green barriers.
- Next steps for ICAPCD include awaiting AB 617 CAP funding for a variety of activities to build community readiness, forming a Community Steering Committee (CSC), and additional community workshops.

### Comments and Questions:

- Comment: Participant recommends CARB increase representation from community based organizations to 15-20 so there will be at least a 5% representation. Participant also recommends Riverside County to be a part of the discussion at SCAQMD due to the large warehouse that reside in the county.
- Question: Are there any plans to measure chromium 6 at the community level?  
Answer: SCAQMD is currently doing a technical evaluation of data that is available but the specifics on air monitoring will be discussed through the steering committee and the prioritization process.
- Question: Why did you choose to get the purple air monitoring sensors?  
Answer: The Purple Air Sensors were being distributed by the California Air Resources Board so that was one of the reasons these type of sensors were chosen but the size and relative reliability also contributed to why these sensors were chosen for use in the Antelope Valley and Mojave Desert district areas.



## 5. BREAKOUT DISCUSSION

### Enhancements and New Strategies for SCAG's EJ Outreach Process:

- Who are some key stakeholders SCAG should reach out to during the 2020 TRP/SCS EJ outreach process?
  - Non-governmental organizations
  - Grassroots groups
  - Air Pollution Control Districts
  - Department of Toxic Substances Control
  - Public health departments
  - Los Angeles County Measure A stakeholders
  - City of Los Angeles Neighborhood Councils
  - Faith-based organizations
  - Specific Groups:
    - Southeast Asian Community Alliance
    - Chinatown Community for Equitable Development
    - Sustainable Little Tokyo
    - Anahugh Youth Sports Association
    - Comite Civico Del Valle
    - Focus Group at LACI (on climate vulnerability)
  - Consider analyzing existing stakeholder list and fill in gaps of communities not represented
  - Consider looking into communities and cities going through climate action plans
- How can we expand on SCAG's EJ outreach approach from the 2016 TRP/SCS for the 2020 RTP/SCS?
  - Consider holding meetings in the evening, not during work hours and in accessible locations
  - Consider releasing budget on EJ outreach process (to show how much resources SCAG can have)
  - Understand that there are food, childcare, and transit costs for participants and consider compensation for participants
  - Consider hosting pop-up events and meeting people where they are at
  - Consider including anecdotal information from community based organizations
  - Provide ample time for outreach
  - Consider exploring contingency plans for meetings with low attendance
  - Consider expanding online presence and surveys
- What are some new strategies/ideas SCAG staff can use to engage more with EJ stakeholders?
  - Consider reframing from heavy technical language
  - Consider inclusion of background and process during outreach process (Why is the outreach occurring? What's the purpose)
- What are some best practices on EJ outreach from other agencies or regions you think SCAG staff should look into for the 2020 RTP/SCS development process?
  - Consider having bilingual meetings
  - Consider having follow-up meetings to show community voice is heard and included in the process
  - Consider including short survey and more online presence
  - Consider or look into best practice examples of EJ policy from Kings County, Seattle, WA; Portland, OR; Minneapolis, MD
  - Consider providing stipend for community participants



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- Consider using anti-displacement as a common goal to achieving improved air quality, parks and open space, and transit access

### Enhancements and New Strategies for SCAG's EJ Technical Analysis:

- SCAG conducted EJ analyses for the 2016 RTP/SCS at the regional, community-based, and localized levels, depending on specific performance indicators. How can these three levels of analyses be further refined or improved?
  - Consider communities under AB1550
  - Consider identifying ways to combine multiple EJ areas to create new EJ area by combining their indices
  - Consider community proposed projects
  - Consider analyzing benefits and burdens on all people
  - Consider adding numerical disparities in park access, health vulnerabilities, and exposure to toxics
- How can we improve or enhance on the existing 18 performance indicators of the 2016 RTP/SCS EJ Appendix?
  - Consider Healthy Places Index, MATES IV study from AQMD, LA County Health Profile, Riverside County Climate Adaptation Plan; develop an inventory of Health Impact Study in the region to identify the gap
  - Consider expanding more on "Gentrification and Displacement" analysis to non-transit areas
  - Consider expanding on traffic safety to include collisions involving trucks
  - Consider examining industries impacted by sea level rise
  - Consider providing more detail of substandard housing
  - Consider race, educational attainment, rent vs. homeowners as indicators to determine communities vulnerable to gentrification and displacement
- What are some new performance indicators that we should consider in addition to the existing 18 performance indicators for the 2020 RTP/SCS EJ Appendix?
  - Consider providing an Emerging Categories that involves certain ports, truck routes, storage yards, etc.
  - Consider including Heat island effects (consider Urban Heat Islands (UHI) Index maps on CalEPA's website)
  - Consider including Seismic risk, liquefaction, and disaster resilience
- How can we make the EJ Appendix more user-friendly for local jurisdictions and stakeholders (i.e. organization of performance indicators, format of appendix, etc.)?
  - Consider providing funding information/sources as it relates to specific EJ topics
  - Consider reorganizing indicators into categories
  - Consider creating interactive application
  - Consider utilizing matrices to better show results of EJ analyses





## AUGUST 9 EJWG BREAKOUT DISCUSSION

### EJ TECHNICAL ANALYSIS:

1. SCAG conducted EJ analyses for the 2016 RTP/SCS at the regional, community-based, and localized levels, depending on specific performance indicators. How can these three levels of analyses be further refined or improved?
2. How can we improve or enhance on the existing 18 performance indicators of the 2016 RTP/SCS EJ Appendix?
3. What are some new performance indicators that we should consider in addition to the existing 18 performance indicators for the 2020 RTP/SCS EJ Appendix?
4. How can we make the EJ Appendix more user-friendly for local jurisdictions and stakeholders (i.e. organization of performance indicators, format of appendix, etc.)?







## 2016 RTP/SCS ENVIRONMENTAL JUSTICE OUTREACH PROCESS – WORKSHOPS

### **EJ Kickoff Workshop – November 20, 2014**

SCAG Los Angeles Office @ 2:00 p.m. – 4:00 p.m.

### **EJ Outreach Workshop – April 15, 2015**

Fairmount Park, Riverside @ 5:30 p.m. – 7:30 p.m.

### **EJ Outreach Workshop – April 23, 2015**

SCAG Los Angeles Office @ 5:30 p.m. – 7:30 p.m.

### **EJ Outreach Workshop – August 18, 2015**

SCAG Los Angeles Office @ 5:30 p.m. – 7:30 p.m.

### **EJ Outreach Workshop – August 31, 2015**

Ovitt Family Community Library, Ontario @ 5:30 p.m. – 7:30 p.m.

## **WORKSHOP HIGHLIGHTS**

- Videoconferencing provided at all regional offices when meetings were held in SCAG's Los Angeles office
- Meetings included four breakout discussions focused on: (1) air quality, (2) parks and open space, (3) transit, access, and land use, and (4) gentrification
- Four out of five meetings were held in the evening time to accommodate work schedules



## 2016 RTP/SCS ENVIRONMENTAL JUSTICE OUTREACH PROCESS – FOCUS GROUPS

### EIGHT (8) FOCUS GROUPS

1. Environment
2. Public Health
3. Minority and Low Income
4. Housing
5. Transportation
6. Senior and Kid
7. Minority
8. Low Income

### TWENTY-EIGHT (28) PARTICIPANTS

- More than seventy-five (75) stakeholders contacted
- Twenty-one (21) different organizations represented
- Twenty-three (23) participated in-person
- Two (2) participated via individual phone interviews
- Three (3) participated via email surveys

### FOCUS GROUP HIGHLIGHTS

- Conducted from July 21-23, 2015
- Six (6) sessions held at SCAG's Los Angeles Office and two (2) sessions held at SCAG's Riverside County Regional Office
- One (1) session held in the evening

### STAKEHOLDER SUGGESTIONS FOR SCAG'S FUTURE OUTREACH EFFORTS:

1. Partner with trusted local organizations
  - a. Have community-based organizations host or co-host meetings, workshops, and other events
2. Form an EJ working group to support SCAG's outreach process
  - a. Meet regularly to help ensure proposed strategies and actions are incorporated into a more global EJ plan
3. Provide clear agendas well in advance of overall outreach process
4. Maintain and update outreach database
5. Tailor meeting content to local communities to improve local interest and participation
  - a. Ensure questions/meeting topics include context and relevance to the community

### OTHER FEEDBACK:

1. Evaluate root causes of disadvantage communities
2. Funding is needed to implement proposed measures and solutions
3. Take a more active role in filtering/prioritizing projects
4. Take proactive role on mitigating future risks
5. Determine the likelihood of transit options by income group



## AUGUST 9 EJWG BREAKOUT DISCUSSION

<b>PERFORMANCE INDICATORS</b>	<b>REGIONAL</b>	<b>COMMUNITY-BASED</b>	<b>LOCALIZED</b>
2016 RTP/SCS REVENUE SOURCES IN TERMS OF TAX BURDENS	X		
SHARE OF TRANSPORTATION SYSTEM USAGE	X		
2016 RTP/SCS INVESTMENTS	X		
DISTRIBUTION OF TRAVEL TIME SAVINGS AND TRAVEL DISTANCE REDUCTIONS	X	X	
GEOGRAPHIC DISTRIBUTION OF TRANSPORTATION INVESTMENTS	X	X	
JOBS-HOUSING IMBALANCE OR JOBS-HOUSING MISMATCH	X		
IMPACTS FROM FUNDING THROUGH MILEAGE-BASED USER FEES	X		
ACCESSIBILITY TO EMPLOYMENT AND SERVICES	X	X	
ACCESSIBILITY TO PARKS AND NATURAL LANDS	X	X	X
GENTRIFICATION AND DISPLACEMENT		X	X
REGIONAL EMISSIONS IMPACTS ANALYSIS	X	X	X
IMPACTS ALONG FREEWAYS AND HIGHLY TRAVELED CORRIDORS (i.e. HIGH-VOLUME ROADWAYS)	X		X
AVIATION NOISE IMPACTS		X	X
ROADWAY NOISE IMPACTS		X	X
ACTIVE TRANSPORTATION HAZARDS			X
PUBLIC HEALTH ANALYSIS	X	X	X
RAIL-RELATED IMPACTS			X
CLIMATE VULNERABILITY			X



## **Technical Working Group**

# **Agenda Item 4**

## 2016 RTP/SCS Performance Measures

Outcome	Performance Measure	Definition	Performance Target	Data Source(s)
Location Efficiency	Share of growth in High Quality Transit Areas (HQTAs)	Share of region's household and employment growth occurring in HQTAs	Improvement (increase) over No Project Baseline	SCAG Intergrated Growth Forecast
	Land consumption	Greenfield land consumed and refill land consumed	Improvement over No Project Baseline	Scenario Planning Model
	Vehicle Miles Traveled (VMT) per capita	Daily vehicle miles driven per person (automobiles and light trucks)	Improvement (decrease) over No Project Baseline	Travel Demand Model
	Transit mode share	The share of total trips that use transit for work and non-work trips	Improvement (increase) over No Project Baseline	Travel Demand Model
	Average distance for work and non-work trips	The average distance traveled for work and non-work trips	Improvement (decrease) over No Project Baseline	Travel Demand Model
	Percent of trips less than 3 miles	The share of work and non-work trips which are less than 3 miles in length	Improvement (increase) over No Project Baseline	Travel Demand Model
	Work trip length distribution	The statistical distribution of work trip length in the region	Improvement (decrease) over No Project Baseline	Travel Demand Model
Mobility and Accessibility	Person delay per capita	Daily minutes of delay experienced per capita	Improvement (decrease) over No Project Baseline	Travel Demand Model
	Person hours of delay by facility type (mixed flow, HOV, arterials)	Excess travel time resulting from the difference between a reference speed and actual speed	Improvement (decrease) over No Project Baseline	Travel Demand Model
	Truck delay by facility type (highways, arterials)	Excess travel time for heavy duty trucks resulting from the difference between a reference speed and actual speed	Improvement (decrease) over No Project Baseline	Travel Demand Model
	Travel time distribution for transit, SOV, & HOV modes for work and non-work trips	Travel time distribution for transit, SOV, and HOV modes	Improvement (decrease in SOV share) over No Project Baseline	Travel Demand Model
h	Collision rates by severity and by mode	Collision rate involving fatalities and serious injuries per 100 million vehicle miles by mode; and number of fatalities and serious injuries by mode (all, bicycle/pedestrian)	Improvement (decrease) over No Project Baseline	Statewide Integrated Records System (SWITRS)/Travel Demand Model Mode Split Outputs

## 2016 RTP/SCS Performance Measures

Outcome	Performance Measure	Definition	Performance Target	Data Source(s)
Safety and Health	Criteria pollutants emissions	CO, NOx, PM2.5, PM10, NO2, and ROG	Improvement (decrease) over No Project Baseline	Travel Demand Model/ ARB EMFAC Model
	Air pollution-related health measures	Pollution-related respiratory disease incidence and cost	Improvement (decrease) over No Project Baseline	Scenario Planning Model
	Physical activity-related health measures	Physical activity/weight related health issues and costs	Improvement (decrease) over No Project Baseline	Scenario Planning Model
	Mode share of walking and biking	Mode share of walking and biking for work and non-work trips	Improvement (increase) over No Project Baseline	Travel Demand Model
Environmental Quality	Criteria pollutant and greenhouse gas emissions	CO, NOx, PM2.5, PM10, NO2, and ROG emissions; and per capita greenhouse gas emissions (CO2)	Improvement (decrease) over No Project Baseline	Travel Demand Model/ ARB EMFAC Model
Economic Opportunity	Additional jobs supported by improving competitiveness	Number of jobs added to the economy as a result of improved transportation conditions which make the region more economically competitive	Improvement (increase) over No Project Baseline	Regional Economic Model (REMI)
	Additional jobs supported by transportation investment	Total number of jobs supported in the economy as a result of transportation expenditures	Improvement (increase) over No Project Baseline	Regional Economic Model (REMI)
	Net contribution to Gross Regional Product	Gross Regional Product due to transportation investments and increased competitiveness	Improvement (increase) over No Project Baseline	Regional Economic Model (REMI)
Investment Effectiveness	Benefit/Cost Ratio	Ratio of monetized user and societal benefits to transportation system investment costs	Greater than 1.0	California Benefit/Cost Model

## 2016 RTP/SCS Performance Measures

Outcome	Performance Measure	Definition	Performance Target	Data Source(s)
Transportation System Sustainability	Cost per capita to preserve regional multimodal transportation system to current state of good repair	Annual cost per capita required to preserve the regional multimodal transportation system to current conditions	Improvement (decrease) over Base Year	Estimated using SHOPP Plan and recent California Transportation Commission 10-Year Needs Assessment
	State Highway System pavement condition	Share of distressed State Highway System lane miles	Improvement (increase) over No Project Baseline	Pavement Management System (Caltrans)
	Local roads pavement condition	Pavement Condition Index (PCI) rating for local roads	Improvement (decrease) over Base Year	Local Arterial Survey Database
Environmental Justice	Environmental Justice performance measures are described in a separate table		Meet Federal Environmental Justice requirements. No unaddressed disproportionately high and adverse effects for low income or minority communities	Various data sources

- New RTP performance measure added for 2016
- 2012 RTP performance measure removed for 2016
- New RTP performance measure added for 2012



## Draft 2020 RTP/SCS Performance Measures

Draft 2020 RTP/SCS Goals	2016 RTP/SCS Performance Measures	Draft 2020 RTP/SCS Performance Measures	
Encourage regional economic prosperity & global competitiveness.	Additional jobs supported by improved economic competitiveness	Additional jobs supported by improved economic competitiveness	
	Additional jobs supported by transportation investments	Additional jobs supported by transportation investments	
	Investment benefit/cost ratio	Investment benefit/cost ratio	
Improve mobility, accessibility, reliability, & travel safety for people & goods.	Average distance travelled for work & non-work trips	Average distance travelled for work & non-work trips	
	Percent of trips less than 3 miles in distance	Percent of trips less than 3 miles in distance	
	Work trip length distribution	Work trip length distribution	
	Collision rates by severity & by mode		Rate of fatalities per 100 million VMT*
			Rate of serious injuries per 100 million VMT*
Enhance the preservation, security, & resilience of the regional transportation system.	Cost per capita to preserve regional multimodal transportation system in current state of good repair	Cost per capita to preserve regional multimodal transportation system in current state of good repair	
	State highway system pavement condition	Interstate pavement condition*	
	Local roads pavement condition	Non-Interstate NHS pavement condition*	
		National Highway System bridge condition*	
Increase person & goods throughput & travel choices within the transportation system.	Person delay per capita	Person delay per capita	
	Person hours of delay by facility type	Person hours of delay by facility type	
	Truck delay by facility type	Truck delay by facility type	
		Non-SOV mode share*	
Reduce GHG emissions & improve air quality.	VMT per capita	VMT per capita	
	Criteria pollutant & GHG emissions	Criteria pollutant emissions (tons per day)	
		GHG emissions per capita	
Support healthy & equitable communities	Air pollution related health measures	Air pollution related health measures	

## Draft 2020 RTP/SCS Performance Measures

Draft 2020 RTP/SCS Goals	2016 RTP/SCS Performance Measures	Draft 2020 RTP/SCS Performance Measures
Support healthy & equitable communities.	Physical activity related health measures	Physical activity related health measures
Adapt to a changing climate & support an integrated regional development pattern & transportation network.	Share of population & employment growth in HQTAs	Share of population & employment growth in HQTAs
	Transit mode share	Transit mode share
		Transit boardings per capita
Leverage new transportation technologies & data-driven solutions that result in more efficient travel.	Travel time distribution for transit, SOV, & HOV modes	Travel time distribution for transit, SOV, & HOV modes
		Mean commute time
Encourage development of diverse housing types in areas well supported by multiple transportation options.	Share of population & employment growth in HQTAs	Share of population & employment growth in HQTAs
	Mode share for walking & biking	Mode share for walking & biking
Promote conservation of natural & agricultural lands & restoration of critical habitats.	Land consumption	Land consumption

Legend
2016 RTP/SCS performance measures carried over for 2020
Potential new performance measures for 2020 RTP/SCS
* MAP-21 federal performance measure