TECHNICAL WORKING GROUP (TWG)

Thursday, November 20, 2014: 10:00 a.m.

SCAG Offices
818 West 7th Street, 12th Floor
Board Room
Los Angeles, CA 90017
(213) 236-1800

Teleconferencing Information: Number: 1-800-832-0736 – Participant Code: 7334636
Please use for web connection: http://scag.adobeconnect.com/twg91814/

AGENDA

Introductions

Receive and File
1. Meeting Summary 10-16-14 (Attachment)
2. Agenda Outlook for the Development of the 2016 RTP/SCS (Attachment)

Information Items
3. Existing and Proposed Performance Measures (Naresh Amatya/Ping Chang) (Attachment)
4. Public Health Work Program (Sarah Jepson) (Attachment)
5. Scenario Planning - 2016 RTP/SCS – Overview and Emerging Themes – (Peter Brandenburg) (Attachment)
6. SCAG Clean Cities Coalition/Alternative Fuel Vehicle Program/Alternative Mobility Map Research (Marco Anderson) (Attachment)
Meeting Summary

The following is a summary of discussions of the Technical Working Group meeting of October 16, 2014.

Receive and File

1. Meeting Summary 9-18-14
2. 2016 RTP/SCS Agenda Outlook

Discussion Items

3. 2016-2040 RTP/SCS Local Review/Input Results
   • Overview of SCS in the 2012 RTP/SCS
     Peter Brandenburg, Acting Manager of Sustainability, presented the key strategies of the 2012 SCS, stating that one of the key elements is concentrating growth in high-quality transit areas. Other key strategies include land use, active transportation, innovative funding mechanisms, and clean fuel technology. Mr. Brandenburg emphasized that the goal for 2016 is to update and refine the SCS without changing the fundamental land use policy. He further stated that innovative transportation technologies, such as Uber and car technology, will be significant components of the scenario planning for the 2016 RTP/SCS.

     Steve Smith, representing SANBAG, inquired as to when the SCS will be ready for modeling and testing. Mr. Brandenburg stated that this should occur sometime in July 2015.

     Dr. Frank Wen, Manager of Research and Analysis, provided an update on the growth forecast.

   • Local Jurisdiction Implementation Survey
     Ping Chang, Program Manager of Land Use and Environmental Planning, provided highlights of the survey results, stating that although this is a voluntary survey, 76% of the jurisdictions have responded. Mr. Chang thanked the local jurisdictions and the subregions for their assistance in this effort.

     Deborah Diep, representing the Center for Demographic Research, suggested that the initial survey results should be noted as ‘preliminary’. She further suggested annotating the number of jurisdictions and the size of the universe.
Gail Shiomoto-Lohr, representing the City of Mission Viejo, suggested adding qualitative language to the report indicating the context of the different periods, (i.e., 2-year, 5-year, and 10-year) and what they represent.

- **Open Space Survey**
  India Brookover, Assistant Regional Planner of Sustainability, stated that as part of the Local Implementation Survey, an Open Space Survey was also included. Ms. Brookover noted that this was administered because the 2012 RTP/SCS contains a commitment to develop open space conservation planning strategies. Consequently, this survey was an assessment of the current state of open space programs and policies in the SCAG region, and will better inform the direction staff will take with open space in the 2016 RTP/SCS. Ms. Brookover stated that 74% of the jurisdictions have responded.

4. **Environmental Justice Analysis and Outreach for 2016 RTP/SCS**
   Kimberly Clark, Senior Regional Planner, provided an overview of the planned Environmental Justice Analysis and Outreach for the 2016 RTP/SCS. Ms. Clark noted that the analysis is required by Federal legislation, Title VI, as well as a number of executive orders and federal circulars. Ms. Clark stated that staff considers the impacts of the RTP/SCS on various communities, particularly minority and low income populations. She further stated that staff continues to monitor and respond to environmental justice issues that arise during and after the implementation of the regional plan. SCAG will host a workshop on November 20, 2014. Video-conferencing will be available at SCAG’s regional offices.

5. **FHWA/FTA NPRM on NEPA Streamlining**
   Jonathan Nadler, Manager of Compliance & Performance Monitoring, and Lijin Sun, Senior Regional Planner, provided a high-level summary of the FHWA/FTA NPRM on NEPA Streamlining.

6. **SB 743 Update**
   Ping Chang, Program Manager of Land Use and Environmental Planning, stated that the preliminary discussion draft of CEQA guidelines for SB 743 updated in August of this year proposed to use a VMT based metric to replace the level of service based methodology to analyze transportation impacts. Comments are due on November 21, 2014. Mr. Chang noted that OPR has announced that a workshop will be held in Sacramento on November 3, 2014 at the Cal/EPA Building from 1:30 PM to 3:30 PM.

7. **Cap and Trade Funding Opportunities**
   Jonathan Nader, Manager of Compliance & Performance Monitoring, provided an overview of the FY14-15 state budget that includes the first investment plan for the Cap-and-Trade Greenhouse Gas Reduction Fund (GGRF). Mr. Nadler noted that the Budget permanently allocates 35% of future auction proceeds to public transit, affordable housing, and sustainable communities, and 25% to high-speed rail. The remaining proceeds will be allocated in future budgets. Mr. Nadler announced that in lieu of the Policy Committee meetings on November 6, 2014, SCAG will host a workshop with state agencies responsible for these programs. The Strategic Growth Council will host a workshop at SCAG on October 27, 2014, wherein they will discuss and seek input on the draft guidelines for the affordable housing and sustainable communities program component of the GGRF.
Agenda Outlook for the Development of the 2016 RTP/SCS
(Note: Revised to put the outlook in chronological order as suggested at the Sept. 2014 TWG)
(Updated 11/13/14)

June 2013
• Potential approach/process, coordination between various technical working groups and policy committees, and updated overall schedule for the development of the 2016 RTP/SCS

January 2014
• System Preservation and system operation focus in the 2012 RTP/SCS and our current efforts on Pavement and Bridge condition database/management

February 2014
• System Performance Measures and MAP-21 requirements under Performance Based Planning and implications of MAP-21
• Local Input Process for Growth Forecast/Land Use (Scenario Planning) for 2016 RTP/SCS, including growth forecast and technology

March 2014
• Performance Based Planning and implications of MAP-21: Safety Performance Measures
• Overview of baseline and innovative funding sources adopted in the 2012 RTP/SCS including underlying technical assumptions/methodology/analysis under Transportation Finance
• Overview of cost assumptions/cost modal for the 2012 RTP/SCS under Transportation Finance
• Model and Tools and Datasets to be used in the 2016 RTP/SCS
• Overview of Aviation program in the 2012 RTP/SCS with a focus on ground transportation improvements

May 2014
• OCTA Draft Long Range Plan Update
• System Preservation Update
• Draft Paper on TOD benefits, challenges and best practices
• Active Transportation Program Update
• Local Input Survey Update
• MAP-21 Safety NPRM Update
• CalEnviro Screen Tool

June 2014
• SCAG Active Transportation Results from the 2011 Household Travel Survey
• 2016 RTP/SCS Modeling variables matrix
• Statewide and MPO Planning Rules NPRM Update
• California Active Transportation Program Update

July 2014
• 2016 RTP/SCS Modeling Variables Matrix
September 2014
- 2016 RTP/SCS Development Agenda Outlook
- Status of Local Input for the 2016 RTP/SCS; Growth Forecast Update
- Modeling Update
- CAL LOTS Update

October 2014
- Overview of SCS in the 2012 RTP/SCS
- Current status of SCS implementation (Local Implementation survey)
- Environmental Justice (First EJ Workshop will be held on 10/23)
- Map Collaborator Database (A web based tool to collect data and develop open space plan.)

November 2014
- Discussion on existing and proposed Performance Measures
- Role of Technology in the 2016 RTP/SCS
- Development of alternative scenarios (Scenario Planning) for 2016 RTP/SCS, including growth forecast, technology
- Emerging issues/themes that could influence 2016 SCS
- Zero/Near Zero/Clean Technology Applications, including Slow Speed/ Electric Vehicle programs (Nov. 2014)
- Emerging New Technology Applications

December 2014
- Technical assumptions/methodology/data/analysis in the 2012 RTP/SCS
- Potential changes in the 2016 RTP/SCS to technical assumptions/methodology/data/analysis
- Updated forecast/land use distribution for 2016 RTP/SCS
- Updated SCS for 2016 RTP/SCS
- Overview of Active Transportation Strategy in the 2012 RTP/SCS
- Progress update on Active Transportation Strategy and emerging issues and their implications to the 2016 RTP/SCS

January 2015
- Asset Management and Infrastructure Performance Measures
- Overview of Goods Movement (GM) Strategy in the 2012 RTP/SCS with a focus on technical assumptions (including technology assumptions)/data/analysis
- Progress update on the GM Strategy with focus on emerging issues and implications on the 2016 RTP/SCS

February 2015
- Program EIR
- Public Participation Plan
- Overview of Transit Strategy in the 2012 RTP/SCS
- Progress update on the Transit Strategy and emerging issues/challenges that could influence the 2016 RTP/SCS
March 2015
- Overview of Highway/HOV/HOT/Toll Roads/Express Lanes proposed in the 2012 RTP/SCS with a focus on technical assumptions/analysis
- Progress update and emerging issues related to highways/HOV/HOT/Toll Roads/Express Lanes

May 2015
- Progress update on the current status of the Aviation component of the 2012 RTP/SCS and emerging issues that may influence the 2016 RTP/SCS
- Overview of TDM/TSM in the 2012 RTP/SCS, including underlying assumptions
- Progress status of TDM/TSM and emerging issues

June 2015
- Progress update on 2012 RTP/SCS revenue/cost
- Potential changes/focus areas and emerging issues in the 2016 RTP/SCS

July 2015
- Transportation Conformity

August 2015
- Finance Plan for 2016 RTP/SCS
- Updated GM Strategy for the 2016 RTP/SCS
- Updated Transit Strategy for the 2016 RTP/SCS
- Updated Active Transportation Strategy for the 2016 RTP/SCS
- Highways Improvement Element in the 2016 RTP/SCS
- Updated Aviation Element of the 2016 RTP/SCS
- Updated TDM/TSM Element for the 2016 RTP/SCS

Note: The Agenda Outlook is intended as a reference for TWG and is subject to change as needed and appropriate as things progress.
Item 3 Attachment:
Existing and Proposed Performance Measures
Southern California Association of Governments

2016 Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS) Overview

Performance Measures Overview

Los Angeles, CA
November 20, 2014

System Metrics Group, Inc.
Today, we will

➤ Summarize the types and uses of performance measures

➤ Present the framework for performance measurement for the 2016 RTP/SCS update process

➤ Present a brief refresher on MAP-21 performance measurement requirements

➤ Provide a preservation performance update

➤ Provide a safety performance update

➤ Answer your questions
Performance Measurement Framework for the 2016 RTP/SCS Update
Uses of Performance Measures

- High Level Land Use/Transportation Scenario Analysis
- Uses of Performance Measures
- RTP/SCS Analysis
- Project or Corridor Studies
High Level Scenario Analysis
Rapid Fire Tool: Analyzing Land Use and Investment Allocations

Example Rapid Fire Outputs from the 2012 SCS Development Efforts:

- GHG (CO2e) emissions from cars and buildings
- Air pollution and public health impacts
- Fuel use and cost
- Building energy and water use, and cost
- Land consumption
- Fiscal impacts
RTP/SCS Analysis
Comprehensive Regional Evaluation Based on SCAG’s Regional Travel Demand Model

RTP/SCS Performance Measures:
- Statutory Requirements
  * Meeting the Clean Air Act (Transportation Conformity)
  * SB 375 (Per Capita GHG Emission Targets 8% by 2020 and 13% by 2035)
- Meeting Broad Regional Goals
- Regional Policies, Strategies, Projects (Managed Lanes, East West Freight Corridor, Mileage-Based User Fee)
- All Rely Primarily on Regional Travel Demand Model

Uses of Performance Measures

High Level Land Use/Transportation Scenario Analysis

Project or Corridor Studies

RTP/SCS Analysis
Performance measurement also involves tracking plan progress

- Performance measures used to monitor performance outcomes may be different from those used to analyze scenarios or final plan.

- Performance outcomes are impacted by both policies and other variables, such as demographic changes and business cycles.

- Results of the monitoring as related to policies could serve as a basis to modify existing policies or developing new policies.
Performance Measures should reflect the regional goals such as the ones in the 2012 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 for 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
## 2012 RTP/SCS Outcomes and Performance Measures

### Location Efficiency Added in 2012

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Performance Measure/Indicator</th>
<th>Definition</th>
<th>Performance Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Efficiency</td>
<td>Share of growth in High Quality Transit Areas (HQTAs)</td>
<td>Share of the region’s growth in households and employment in HQTAs</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Land consumption</td>
<td>Additional land needed for development that has not previously been developed or otherwise impacted, including agricultural land, forest land, desert land, and other virgin sites</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Average distance for work or non-work trips</td>
<td>The average distance traveled for work or non-work trips separately</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Percent of work trips less than 3 miles</td>
<td>The share of total work trips which are fewer than 3 miles</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Work trip length distribution</td>
<td>The statistical distribution of work trip length in the region</td>
<td>Improvement over No Project Baseline</td>
</tr>
</tbody>
</table>
Preservation became a sustainability focus area

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Performance Measure/Indicator</th>
<th>Definition</th>
<th>Performance Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility and Accessibility</td>
<td>Person delay per capita</td>
<td>Delay per capita can be used as a supplemental measure to account for population growth impacts on delay</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Person delay by facility type (mixed flow, HOV, arterials)</td>
<td>Delay – excess travel time resulting from the difference between a reference speed and actual speed</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Truck delay by facility type (Highway, Arterials)</td>
<td>Delay – excess travel time resulting from the difference between a reference speed and actual speed</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Travel time distribution for transit, SOV, HOV for work and non-work trips</td>
<td>Travel time distribution for transit, SOV, HOV for work and non-work trips</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td>Safety and Health</td>
<td>Collision/accident rates by severity by mode</td>
<td>Accident rates per million vehicle miles by mode (all, bicycle/pedestrian and fatality/killed)</td>
<td>Improvement over Base Year</td>
</tr>
<tr>
<td></td>
<td>Criteria pollutants emissions</td>
<td>CO, NOx, PM2.5, PM10, and VOC</td>
<td>Meet Transportation Conformity requirements</td>
</tr>
<tr>
<td>Environmental Quality</td>
<td>Criteria pollutant and greenhouse gas emissions</td>
<td>CO, NOx, PM2.5, PM10, and VOC Per capita greenhouse gas emissions (CO2)</td>
<td>Meet Transportation Conformity requirements and SB 375 per capita GHG reduction targets</td>
</tr>
<tr>
<td>Economic Well Being</td>
<td>Additional jobs supported by improving competitiveness</td>
<td>Number of jobs added to the economy as a result of improved transportation conditions which make the region more competitive</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Additional jobs supported by transportation investment</td>
<td>Total number of jobs supported in the economy as a result of transportation expenditures</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td></td>
<td>Net contribution to Gross Regional Product</td>
<td>Gross Regional Product due to transportation investments and increased competitiveness</td>
<td>Improvement over No Project Baseline</td>
</tr>
<tr>
<td>Investment Effectiveness</td>
<td>Benefit/Cost Ratio</td>
<td>Ratio of monetized user and societal benefits to the agency transportation costs</td>
<td>Greater than 1.0</td>
</tr>
<tr>
<td>System Sustainability</td>
<td>Cost per capita to preserve multi-modal system to current and state of good repair conditions</td>
<td>Annual costs per capita required to preserve the multi-modal system to current conditions</td>
<td>Improvement over Base Year</td>
</tr>
</tbody>
</table>
In addition, performance measures are also often driven by statutory requirements.

- **Project or Corridor Performance Measures**
  - Project and Corridor-Dependent
    * Some Studies (e.g., EIR) have specific requirements
    * Often reflects local priorities
    * SCAG is often at the table and provides input, but does not make final decision.
    * SCAG may develop specific measures for regional projects it initiates in coordination with stakeholders.
Refresher on MAP-21 performance measurement requirements
MAP-21 also establishes specific performance measures that address the goals

<table>
<thead>
<tr>
<th>National Goals</th>
<th>MAP-21 Performance Measures</th>
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<tbody>
<tr>
<td>Safety</td>
<td>Highway Safety Improvement Program: Serious injuries and fatalities per vehicle mile travelled (VMT)</td>
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<tr>
<td>Highway Safety Improvement Program:</td>
<td>Number of serious injuries and fatalities</td>
</tr>
<tr>
<td>Transit Safety Plan with minimum</td>
<td>safety performance criteria for all modes of public transportation</td>
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<tr>
<td>Infrastructure Condition</td>
<td>Condition of Pavements on the Interstate System</td>
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<td>Condition of Pavements on the</td>
<td>remaining National Highway System</td>
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<td>remaining National Highway System</td>
<td>Condition of Bridges on National Highway System</td>
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<td>Condition of Bridges on National</td>
<td>Establish state of good repair (SGR) standards for measuring the condition of capital</td>
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<tr>
<td>Highway System</td>
<td>assets of recipients including: Equipment, rolling stock, infrastructure, facilities</td>
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<tr>
<td>Congestion Reduction/</td>
<td>Performance of the National Highway System</td>
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<tr>
<td>System Reliability</td>
<td>Congestion Mitigation and Air Quality (CMAQ) Improvement Program: Traffic</td>
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<tr>
<td>Freight Movement &amp; Economic Vitality</td>
<td>Congestion</td>
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<td>National Freight Movement on the</td>
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<tr>
<td>Environmental Sustainability</td>
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<tr>
<td>Congestion Mitigation and Air Quality</td>
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<tr>
<td>(CMAQ) Improvement Program: On-road</td>
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<td>mobile source emissions</td>
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</table>
SCAG’s current measures map well to the national goals and measurement areas

<table>
<thead>
<tr>
<th>SCAG RTP/SCS Outcome</th>
<th>SCAG Performance Measures</th>
<th>MAP-21 Goal Area &amp; Performance Measures</th>
<th>Safety</th>
<th>Infrastructure Condition</th>
<th>Congestion Reduction/ System Reliability</th>
<th>Freight/ Economic Vitality</th>
<th>Env. Sustainability</th>
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<tbody>
<tr>
<td>Location Efficiency</td>
<td>Land consumption (total &amp; per capita)</td>
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<td>Median distance for work and non-work trips</td>
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<td>Percent of work trips less than 3 miles</td>
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<td>Share of growth in transit priority areas</td>
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<tr>
<td>Environmental Quality</td>
<td>Tons of pollutants</td>
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<td>Economic Well Being</td>
<td>Net tons of pollutants (criteria pollutants) and greenhouse gas emissions</td>
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<td>Additional jobs supported by improving competitiveness</td>
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<td></td>
<td>Additional jobs supported by transportation investment</td>
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<td>Net contribution to Gross Regional Product</td>
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<td>Investment Effectiveness</td>
<td>Benefit/Cost Ratio</td>
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<td>System Sustainability</td>
<td>Cost per capita to preserve multi-modal system to current and state of good repair conditions. The 2012 RTP/SCS summarized asset condition of highways, arterials, and bridges</td>
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</table>

Not required under MAP-21, but many of these measures could address environmental sustainability
Preservation Performance Update
State Highway Pavement Condition 2013 Survey – Distressed Lane Miles

2013 Pavement Condition Survey
Distressed Lane Miles by County

County

MAJOR
MINOR
RIDE
## Local Roads
### 2014 Statewide Survey augmented by SCAG

<table>
<thead>
<tr>
<th>County</th>
<th>Paved Centerline Miles</th>
<th>Unpaved Centerline Miles</th>
<th>2014 PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>3,001</td>
<td>1,250</td>
<td>57</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>21,330</td>
<td>213</td>
<td>66</td>
</tr>
<tr>
<td>Orange</td>
<td>6,600</td>
<td>-</td>
<td>77</td>
</tr>
<tr>
<td>Riverside</td>
<td>7,563</td>
<td>313</td>
<td>70</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>9,108</td>
<td>717</td>
<td>71</td>
</tr>
<tr>
<td>Ventura</td>
<td>2,513</td>
<td>2</td>
<td>70</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50,115</strong></td>
<td><strong>2,495</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

[Diagram with a bar chart showing the distribution of PCI scores for different conditions: Preventive Maintenance, At Risk, Poor, and Failed.]
Local Roads
Costs go up significantly as PCI deteriorates

![Bar chart showing different road conditions and maintenance costs](chart.png)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Preventive Maintenance</th>
<th>Thin HMA Overlay</th>
<th>Thick HMA Overlay</th>
<th>Reconstruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Roads</td>
<td>$4.85</td>
<td>$18.82</td>
<td>$29.73</td>
<td>$68.48</td>
</tr>
<tr>
<td>Local Roads</td>
<td>$4.61</td>
<td>$18.04</td>
<td>$28.44</td>
<td>$60.31</td>
</tr>
</tbody>
</table>
Local Roads
Needs are estimated through 2035 … will be updated shortly through 2040

Figures in Nominal Dollars
(Year of Expenditure)

<table>
<thead>
<tr>
<th>Unpaved Centerline Miles</th>
<th>Unpaved Needs ($M)</th>
<th>Total Miles</th>
<th>Total 21 year Needs ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,250</td>
<td>$ 391.6</td>
<td>4,251</td>
<td>$ 2,439</td>
</tr>
<tr>
<td>213</td>
<td>$ 66.7</td>
<td>21,543</td>
<td>$ 26,267</td>
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<td>$ -</td>
<td>6,600</td>
<td>$ 7,005</td>
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<tr>
<td>313</td>
<td>$ 98.1</td>
<td>7,876</td>
<td>$ 7,576</td>
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<tr>
<td>717</td>
<td>$ 224.6</td>
<td>9,825</td>
<td>$ 9,476</td>
</tr>
<tr>
<td>2</td>
<td>$ 0.6</td>
<td>2,515</td>
<td>$ 2,702</td>
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<tr>
<td>2,495</td>
<td>$ 781.68</td>
<td>52,610</td>
<td>$ 55,466</td>
</tr>
</tbody>
</table>
## Local Roads

Current expenditures based on survey and trends

### Current Expenditure Estimates

<table>
<thead>
<tr>
<th>County</th>
<th>Annual Pavement Expenditures ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012/13</td>
</tr>
<tr>
<td>Imperial</td>
<td>$35</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$394</td>
</tr>
<tr>
<td>Orange</td>
<td>$130</td>
</tr>
<tr>
<td>Riverside</td>
<td>$135</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>$96</td>
</tr>
<tr>
<td>Ventura</td>
<td>$35</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$825</strong></td>
</tr>
</tbody>
</table>
## Local Roads Funding Shortfall through 2035

<table>
<thead>
<tr>
<th>County</th>
<th>Total Miles</th>
<th>Total 21 year Needs ($M)</th>
<th>Total 21 year Funding ($M)</th>
<th>Shortfall ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>4,251</td>
<td>$ 2,439</td>
<td>$ 654</td>
<td>$(1,785)</td>
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<tr>
<td>Los Angeles</td>
<td>21,543</td>
<td>$ 26,267</td>
<td>$ 8,300</td>
<td>$(17,967)</td>
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<tr>
<td>Orange</td>
<td>6,600</td>
<td>$ 7,005</td>
<td>$ 2,417</td>
<td>$(4,588)</td>
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<td>Riverside</td>
<td>7,876</td>
<td>$ 7,576</td>
<td>$ 2,822</td>
<td>$(4,754)</td>
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<td>San Bernardino</td>
<td>9,825</td>
<td>$ 9,476</td>
<td>$ 1,889</td>
<td>$(7,587)</td>
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<td>Ventura</td>
<td>2,515</td>
<td>$ 2,702</td>
<td>$ 581</td>
<td>$(2,121)</td>
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<tr>
<td><strong>Total</strong></td>
<td>52,610</td>
<td>$ 55,466</td>
<td>$ 16,664</td>
<td>$(38,802)</td>
</tr>
</tbody>
</table>
Safety Performance Update
Safety Analysis Update

- We previously presented preliminary safety results (based on SWTRS) and received two primary comments:
  - Can we identify active transportation related rates?
  - Can we double-check 2012 numbers, since the reduction looked surprising?
Active Transportation Accident Rate Trends

Increasing trend may be related to increased trips
Active Transportation Accident Rate Trends
Pedestrian Accident Trends

Total Pedestrian Accidents SCAG Region

- Imperial
- Los Angeles
- Orange
- Riverside
- San Bernardino
- Ventura

Graph showing the total pedestrian accidents in the SCAG region from 2008 to 2012.
Active Transportation Accident Rate Trends
Bike Accident Trends

Total Bicycle Accidents SCAG Region

- Imperial
- Los Angeles
- Orange
- Riverside
- San Bernardino
- Ventura

Year:
- 2008
- 2009
- 2010
- 2011
- 2012
Active Transportation Accident Rate Trends
Active Transportation Fatality Trends

Total Pedestrian & Bicycle Fatal Accidents SCAG Region

- Ventura
- San Bernardino
- Riverside
- Orange
- Los Angeles
- Imperial
Updated Total Collisions and Percent Change 2002-2012 – Still promising trends

February Total Collisions by County

Revised Collisions by County
Updated PDO Collisions Percent Change 2002-2012 – Similar trends for property damage

February Percent Change in PDO Collisions by County from 2002

Revised Percent Change in PDO Collisions by County from 2002
Updated Fatal Collisions 2002-2012 – no changes

February Total Fatal Collisions by County
Monitoring Performance (Outcome) Measures

- New category beginning in the 2012 RTP/SCS

- Include the following categories
  - Location Efficiency
  - Mobility and Accessibility
  - Reliability
  - Safety and Health
  - Productivity
  - Environmental Quality
Monitoring Performance (Outcome) Measures is Part of Monitoring Progress

- Monitoring Progress includes monitoring implementation actions as well as performance outcomes.

- Implementation actions, relative to the RTP/SCS, may include, for example:
  - Local general plan updates
  - Zoning updates
  - Development of specific plans
  - Development of bike plans, pedestrian plans, complete street policies
  - Development of parking management ordinance, TDM
  - Timely implementation of transportation or development projects
  - Others: funding, tools
Considerations to Update Monitoring Performance (Outcome) Indicators

- Stakeholders input: TWG, CTCs, etc.
- MAP-21 performance measures (in progress)
- Statewide Performance Monitoring Indicators for Transportation Planning (June 2013)
- California Healthy Communities Data & Indicators Project (2013)
- CalEnviroScreen indicators (August 2014)
- California Transportation Plan 2040 (expected 2015)
- Research on MPOs’ performance indicators in the nation (in progress)
Statewide Performance Monitoring Indicators for Transportation Planning (June 2013)

- VMT per capita
- Percent of Congested Freeway/Highway Vehicle Miles (PeMS)
- Mode Share (Travel to work)
- State of Good Repair (for highways, local streets, highway bridges, transit assets)
- Freeway/Highway Buffer Index (PeMS)
- Fatalities/serious injuries per VMT and per capita
Statewide Performance Monitoring Indicators for Transportation Planning (June 2013) (cont’d)

➤ Transit accessibility (Housing and jobs within 0.5 mile of transit stop with frequent transit service)

➤ Travel Time to Jobs

➤ Change in Agricultural Land

➤ CO2 Emissions Reduction per capita (modeled data)
Examples of Possible Additions to the Monitoring Performance (Outcome) Indicators

- MAP-21 Performance Measures (TBD)
- VMT per capita
- Mode Share (Travel to work)
- Annual transit boardings per capita
- Population within ¼ mile of bike facilities
- Share of multi-family housing units
Questions
Item 4 Attachment:

Public Health Work Program
SCAG PUBLIC HEALTH PROGRAM

SCAG is committed to the development of policies and plans that balance regional goals for mobility, livability, prosperity and sustainability. Public health is closely linked with each of these goals. It is a key indicator of regional prosperity and sustainability, and an outcome of the mobility and livability strategies pursued in the region. Studies have consistently shown that the built environment affects a range of chronic health conditions including obesity, hypertension, heart disease, diabetes, cancer, and asthma. Further evidence suggests that land-use and transportation planning and policy decisions can play a role in public health outcomes by improving air quality, reducing greenhouse gas emissions, increasing opportunities for physical activity, reducing the risk of injury, and creating access to jobs, education and everyday necessities such as health care.

SCAG has a long history of supporting the region in achieving Federal and state mandates designed to protect public health as it relates to air quality, safety, and environmental justice. However, more recent research and guidance released by federal and state agencies suggests that earlier engagement between health practitioners and transportation professionals in a collaborative process can improve decision-making and help balance competing interests. SCAG can guide and influence the evolution of federal and state policies related to health and built environment by strengthening its technical capacity and leadership related to public health.

POLICY DIRECTION

The 2012 RTP/SCS supports SCAG in taking a more proactive role in public health. The plan seeks to “Protect the environment and health of our residents by improving air quality and encouraging active transportation.” It also calls on SCAG to: “Collaborate with the region’s public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.” Following the adoption of the 2012 RTP/SCS, the Regional Council convened a Public Health Subcommittee and adopted policy recommendations that further define SCAG’s public health role. The recommendations include supporting transportation investments with an active transportation component, providing robust public health data and information to support regional policy and the development of the 2016 RTP/SCS, and promoting ongoing partnerships with regional partners, local public health departments and other stakeholders.

GOALS

1) Provide leadership to measure and improve public health outcomes by expanding the knowledge base and increasing awareness of the relationship between health and the built environment throughout the region.

2) Develop and implement balanced policies in the 2016 Regional Transportation Plan/Sustainable Communities Strategy that drive positive health outcomes related to physical activity from walking and bicycling, collision related injuries and fatalities, air quality impacts and emissions, accessibility, climate adaptation, environmental justice, job creation and economic development.

3) Provide regional support, including data, statistics, benchmarks, and analysis tools, to help local agencies integrate public health into the multimodal transportation, economic development, job creation and land use planning processes.

STRATEGIES

1) REGIONAL COLLABORATION AND PARTNERSHIPS (ENGAGEMENT AND EDUCATION)

Increase regional engagement and collaboration on the issue of public health as related to the built environment and SCAG core planning functions by raising awareness among policy leaders, agency staff, business, and the public.
a) **Regional Convenings:** Facilitate information exchange through SCAG Committees, health forums, issue integration within other SCAG-led forums (active transportation, poverty, economy, etc...)

b) **Partnerships:** Develop and sustain partnerships with agencies, foundations, and stakeholder groups to accelerate economic development, improve public health, support environmental justice, and reduce socio-economic disparities

c) **Support Active Transportation Education:** Implement GA resolution to create partnerships between county public health departments and county transportation commissions that promote roadway safety and encourage active transportation by supporting public education and co-benefit research

d) **Expand Regional Capacity:** Support opportunities to collaborate with partners and stakeholders to expand the knowledge base and momentum for integrating public health considerations into local and regional planning activities

2) **PUBLIC HEALTH IN REGIONAL PLANNING (INTEGRATION)**

Measure and improve health outcomes in the region by incorporating consideration of health in the regional transportation/SCS planning process.

a) **Sustained Engagement and Collaboration:** Engage with policy makers, partners and stakeholders around health-specific topics to inform policy and planning discussions

b) **Performance Measurement:** Develop information on the performance of alternatives across broad spectrum of health issues through data/statistics collection, modeling enhancements and research

c) **Public Health Policy Development:** Build off of existing policies to close policy gaps and incorporate public health into regional transportation planning efforts

3) **TECHNICAL ASSISTANCE (SUPPORT AND ENCOURAGEMENT)**

Provide technical assistance to local agencies to support implementation of the 2012 RTP/SCS.

a) **Planning Resources:** Continued support through Sustainability Program Grants for transportation, land-use, and sustainability planning focused on improved health outcomes

b) **Access to Expertise:** Toolbox Tuesdays, Website Resources

c) **Communications:** Fact Sheets, Best Practices Documentation, Sustainability Awards
FY 2014-2015 PUBLIC HEALTH ACTION PLAN

SCAG plans to engage in the following activities in FY 2014-2015 to implement the public health program. These activities will complement other efforts being performed related to active transportation, the 2016 RTP/SCS and the county Joint Work Programs.

1) REGIONAL COLLABORATION AND PARTNERSHIPS
a) Randall Lewis Health Policy Fellows: Support placement of Randall Lewis Health Policy Fellows local cities to engage, educate and support local and regional efforts aimed at integrating public health into land use and planning activities.

   Deliverables & Schedule
i. Fellows Placed in Cities (October 2014-May 2015)
ii. Public Health Forum (Spring 2015)

b) Active Transportation Safety and Encouragement Campaign (ATP Grant): SCAG will conduct planning activities to prepare for a Fall 2015 media campaign to reduce bicycle and pedestrian collisions.

   Deliverables & Schedule
i. Caltrans Contract (Sept-Dec 2015)
iii. Steering Committee Meetings (January-June 2015)
iv. Draft Outreach and Communications Plan (April 2015)
v. Final Outreach and Communications Plan (June 2015)

c) Public Health Working Group: Coordinate a public health working group including members of the county transportation commissions, county departments of public health and stakeholders to provide input to SCAG staff related to implementation of SCAG’s Public Health Program.

   Deliverables & Schedule
i. Quarterly Meetings (Starting November 2014)

2) PUBLIC HEALTH IN REGIONAL PLANNING
a) Active Transportation Health & Economic Impact Study: This study will fill a key knowledge gap related to the economic and health benefits generated regionally from current levels of active transportation trips. The results will be used to inform the 2016 RTP/SCS. (Funding Approved through 2014-2015 OWP – Fall 2014 to Summer of 2015)

   Deliverables & Schedule
i. Develop Scope of Work (July –Oct 2014)
iii. Conduct analysis (January-May 2015)
b) **2016 RTP Update Public Health White Paper:** Staff will develop a public health white paper exploring opportunities to integrate analysis of health impacts into the policy and technical components of 2016 RTP/SCS, including Scenario Planning, Sustainable Communities Strategy, Performance Measurement, Transportation Strategies, and Environmental Justice. The white paper will be used to inform internal strategy and to communicate to stakeholders the agency’s plans for integrating health in the planning process.

**Deliverables & Schedule**

i. Review SCAG 2012 Plan (October 2014))
ii. Literature Review (October-November 2104)
iii. Draft White Paper (January 2014)
iv. Final White Paper (February 2015)

3) **TECHNICAL ASSISTANCE**

a) **Trainings Toolkits (ATP Grant):** The training toolkits activity builds off of deliverable 1.C to expand support for active transportation across the region. In partnership with the county public health departments and county transportation commissions, SCAG will develop Active Transportation Trainings and Training Toolkits for 3-4 target audiences. The trainings will create and empower local champions in key sectors to lead education and encouragement programs in their communities.

**Deliverables & Schedule**

i. Targeted Trainings Strategy (April May 2015)
ii. Develop RFP (May- June 2015)
iii. Procure Consultant (June -August 2105)
iv. Prepare Toolkits/Conduct Trainings (FY15-16)

b) **Website Upgrades:** SCAG will develop a website to track and provide information to stakeholders on SCAG’s public health related initiatives. Developed with existing staff resources.

**Deliverables & Schedule**

i. Develop site design with Communications team (October-November 2014)
ii. Develop Content/Text (December 2014-January 2015)
iii. Website Launch (Spring 2015)
Item 5 Attachment:

Scenario Planning - 2016 RTP/SCS
Overview and Emerging Themes
2012 RTP/SCS
Key Strategies:

- Concentrate growth in high quality transit areas (HQTA)
- Enhanced Transit Service
- Active Transportation
- Innovative Funding
- Invest in clean fuel technology
- East/West Freight Corridor
2016 RTP/SCS – Emerging Themes

- Progress report on implementation of 2012 strategies
- Update and refine 2012 strategies
  - Active transportation, public health, etc.
- Study and integrate innovative transportation technologies
- Respond to changing demographics – millennials, aging
- Best practices
- Set the stage for 2020 RTP/SCS
2016 RTP/SCS – Scenario Planning

- July 2014 – July 2015 (approx.)
- Scenario Planning Model/Urban Footprint
- 4 Initial scenarios – Spring 2015
  - “Local Input”
  - “2012 Plan Updated”
  - “Policy Scenario A”
  - “Policy Scenario B”
- Stakeholder workshops – Late Spring 2015
- 1 Revised/Draft 2016 Plan scenario – Summer 2015
- Draft 2016 RTP/SCS – Fall 2015
Potential policy questions to explore

- Are local governments adopting 2012 RTP/SCS policy?
- Will emerging technologies support or conflict with our transportation, land use, other policies?
- Implications of fast vs. slow implementation (e.g. active transportation funding)?
- Will demographic trends significantly effect transportation, land use needs?
- What will it take to meet more aggressive targets?
Potential variables

- **Land use**
  - Location
  - Dev. type, density

- **Transport Innovation/Technology**
  - Public investment/private investment/supportive policy
  - Rate & depth of penetration

- **Demographics**
  - Various travel behavior, locational changes

- **Active Transportation**
  - Rate of investment
  - Supportive policies
  - New applications

- **Transportation investments**
- **Transportation finance**
- **Others (?)**
Transport Innovations/Technology research

- What’s out there?
- How will it effect travel behavior?
- What data is out there?
- How will we model it?

- Best candidates – Alt. fuel vehicles, 1st/Last Mile, Complete Streets, ITS Roadway

- More questions…
  - Policy – who makes it happen? (public and/or private sectors)
  - Implications for land use? Transportation investments?
Item 6 Attachment:

SCAG Clean Cities Coalition
Alternative Fuel Vehicle Program/Alternative Mobility Map Research
The SCAG (Southern California) Clean Cities Coalition includes parts of Los Angeles County, Orange, San Bernardino, Ventura and Imperial County.

The Coalition was originally formed (designated) in 1996.

Coalition Structure:

- Clean Cities is SCAG program component (since 2010)
- The Coalition reports to SCAG’s Energy & Environment Policy Committee & RTTAC
- 200 + stakeholders/ members
- Coalition funded through DOE program contract and available CEC Grant Funding
2013 Gallons of Gasoline Equivalent (GGe) Reductions

2013 Gallons of Gasoline Equivalent Reduced
8,519,119 gallons

- Alternative Fuel Vehicles (62%)
- Miles Traveled Reductions (37%)
- Hybrid Vehicles (1%)
- Fuel Economy Improvements (1%)
- Electric & Plug-In Vehicles (0%)
Gallons of Gasoline Equivalent (GGe) Reductions

Historical Gallons of Gasoline Equivalent Reduced

- **2009**: 15,399,471 gal
- **2010**: 41,735,350 gal
- **2011**: 50,655,698 gal
- **2012**: 40,746,533 gal
- **2013**: 8,519,119 gal
2013 Greenhouse Gas Emissions (GHG) Reductions

2013 Greenhouse Gas Emissions Reduced
50,807 tons

- Alternative Fuel Vehicles (21%)
- Electric & Plug-In Vehicles (0%)
- Fuel Economy Improvements (1%)
- Hybrid Vehicles (2%)
- Vehicle Miles Traveled Reductions (76%)
Greenhouse Gas Emissions (GHG) Reductions

Historical Greenhouse Gas Emissions Reduced

- 2009: 36,269 tons
- 2010: 84,389 tons
- 2011: 185,002 tons
- 2012: 117,241 tons
- 2013: 50,807 tons
Next Steps

- Upcoming Coalition Activities
  - Managing Mixed Fuel Fleets Webinar
  - Renewable Natural Gas Briefings
- One-on-One Stakeholder Interviews
  - Funding opportunities
  - Information distribution
  - Additional input?
  - Questions?
Local Agency Focus

- Workplace Charging
  - Employer Outreach
  - Pre-Connection Commitments
- Multi-Family Buildings
  - Demonstration Projects
- Retail Fast Charging
  - Parking Issues
Local Agency Recommendations

- General Outreach and Awareness
  - PEV Events, Ride-&-Drives,
- Consumer Friendly Installation Permits
  - Model Ordinances, Zoning Changes, Streamlined On-line Permits
- Targeted Outreach to Audiences
  - Employers, Building Owners, PEV Owners
- Direct Participation in Pilot Projects
  - Multi-Family Dwelling Unit Installation to understand policy issues
Regional PEV Resources

SCAG Funded Products and Resources available:
www.scag.ca.gov/programs/Pages/RegionalElectric.aspx

SCAG PEV Readiness Plan

SCAG PEV Readiness Atlas

SCAG Interactive PEV Readiness Atlas
Regional NEV/Alt Mobility Friendliness

- NEVs
- Urban Mobility Platforms
- eBikes
- Car Sharing
- Travel Planning Apps
- Fully Autonomous Vehicles
Regional NEV/Alt Mobility Friendliness

Index comprised of eight different factors

1. Roadway Speed (actual NOT posted)
2. Average Roadway Class
3. Intersection Density
4. Household Density
5. Employment Density
6. Population Density
7. Retail Employment Density
8. Density of EV Registrations
Regional NEV/Alt Mobility Friendliness

September 14, 2014

Legend:
- County Boundaries
- City Boundaries
- Less Friendly
- More Friendly

Source: HERE, Delorme, MapmyIndia, © OpenStreetMap contributors, and the GeoJot Community
Regional NEV/Alt Mobility Friendliness