TECHNICAL WORKING GROUP (TWG)

Thursday, March 19, 2015: 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 2-19-15 (Attachment)
2. Agenda Outlook for the Development of the 2016 RTP/SCS (Attachment)
3. Potential Policy Committee Meetings Outlook (Attachment)
4. Affordable Housing Sustainable Communities (AHSC) Grant Criteria (Attachment Under Separate Cover)
5. 2016 RTP/SCS Preliminary Scenario Planning Matrix Overview (Jason Greenspan) (Attachment)

Information Items

6. CALTRANS California Transportation Plan 2040 (Dan Kopulsky, Caltrans District 7) (Attachment)
7. 2016 RTP/SCS Performance Measures (Naresh Amatya/Ping Chang) (Attachment)
8. Asset Management and Condition Overview (Naresh Amatya/Ping Chang) (Attachment)
9. Active Transportation Program (ATP) Regional Guidelines (Stephen Patchan) (No Attachment)
10. 2016 RTP/SCS Active Transportation Progress Update (Alan Thompson) (Attachment)
Item 1 Attachment:
Meeting Summary 2-19-15
Meeting Summary

The following is a summary of discussions at the Technical Working Group meeting of February 19, 2015.

Receive and File

1. Meeting Summary 1-15-15

2. 2016 RTP/SCS Agenda Outlook

Information Items

3. Overview of the RTP/SCS Transit Element
   Matt Gleason, SCAG staff, presented highlights of the Transit Element of the RTP/SCS and an outline of the plan performance. Highlights included a review of the SCAG region transit system, a review of the adopted 2012 RTP/SCS Transit Element, the 2012 RTP/SCS implementation progress, and transit emerging issues for 2016 RTP/SCS.

4. Overview of RTP/SCS Passenger Rail Element
   Steve Fox, SCAG staff, presented highlights of the Passenger Rail Element, including a review of the adopted 2012 RTP/SCS Passenger Rail Element, 2012 RTP/SCS implementation progress, and the passenger rail vision for 2016 RTP/SCS.

5. Scenario Matrix
   Jason Greenspan, SCAG staff, presented an introduction and overview of the Preliminary 2016 RTP/SCS Scenario Planning Matrix. The Scenario Matrix will be presented to the Policy Committees on March 5, 2015.

6. Preliminary Technical Information for Environmental Justice Analysis in the 2016 RTP/SCS
   Kimberly Clark, SCAG staff, provided an overview of the Federal and State requirements for SCAG’s Environmental Justice Program, along with a technical analysis introduction, both localized and regional. Ms. Clark stated that staff will conduct a more detailed analysis of various topics, including active transportation safety, gentrification and affordable housing, accessibility to parks and shopping facilities, and public health. Ms. Clark further stated that staff has sought participation from a number of stakeholder groups, including social justice advocacy groups, active transportation advocates, public health groups, environmental organizations, housing advocates, and partner agencies.
7. **2016 RTP/SCS Program Environmental Impact Report**
   Lijin Sun, SCAG staff, presented an overview of the Program Environmental Impact Report (PEIR). Ms. Sun stated that staff is currently preparing the Notice of Preparation (NOP) in accordance with CEQA guidelines, and the NOP will be released for public review in March. The report will be presented to the policy committees on March 5, 2015.

8. **Public Health Framework for 2016-2040 RTP/SCS**
   Rye Baerg, SCAG staff, presented the Public Health Framework for 2016-2040 RTP/SCS. Mr. Baerg stated that the Public Health Subcommittee adopted a number of recommendations, one of which is to include more public health data to better inform the regional policy and development of the 2016 RTP/SCS. Mr. Baerg further stated that staff has been working on the Subcommittee’s recommendations and has integrated a number of active transportation components. Mr. Baerg noted that staff has formed a Public Health Working Group to better engage stakeholders.

   Wally Siembab, representing South Bay Cities Council of Governments, reiterated his objections that a mobility agency is directing its resources to public health issues outside the more valid parameters of safety and air-quality.

9. **2015 Active Transportation Program (ATP)**
   Sarah Jepson, SCAG staff, reported that the 2015 cycle of the ATP is underway and the draft statewide guidelines have been released. The guidelines will be adopted on March 26, 2015 and on that same day the County Transportation Commissions will release the Call for Projects and applications will be due on May 31, 2015. Ms. Jepson stated that the budget will be approximately $300M over three (3) years starting FY 2016-17.

10. **2015 Local Profiles Status Update**
    Ping Chang, SCAG staff, stated that staff is completing the draft 2015 local profiles to be provided to local jurisdictions and subregions for review by the end of February 2015. The final local profiles will be distributed at the General Assembly in May 2015.

11. **Best Practices Research Project Status Update**
    Ping Chang, SCAG staff, stated that staff is building on the local implementation survey, and more details will be provided as the project moves forward.
Item 2 Attachment:
Agenda Outlook for the Development of the 2016 RTP/SCS
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 2/11/15)

• Strikethrough signifies item was not covered

**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
- Zero/Near Zero/Clean Technology Applications, including Slow Speed/ Electric Vehicle programs (Nov. 2014)
- Update on 2016 RTP/SCS Schedule
- Update on research and analysis for RTP/SCS strategies

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
- 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
  • Draft 2016-2040 RTP/SCS Datasets for two Scenarios 1) Local Input 2) Updated 2012-35 RTP/SCS and analysis relative to HQTAs, TPAs and Local Specific Plans
  • Preview of the Progress Report/General Framework presentation for the 2016 RTP/SCS to be given at the February 5 Joint Regional Council/Policy Committee Meeting

February 2015
• Program EIR
• Overview of RTP/SCS Transit Element
• Overview of RTP/SCS Passenger Rail Element
• 2015 Active Transportation Program
• Public Health Framework for 2016-2040 RTP/SCS
• Environmental Justice Framework
• Draft Scenario Planning Matrix
• 2015 Local Profiles Status Update
• Best Practices Research Project Status Update

March 2015
• Affordable Housing Sustainable Communities Grant Criteria
• Draft Scenario Matrix
• 2016 RTP/SCS Performance Measures
• Asset Management and Condition Overview
• Active Transportation Program (ATP) Regional Guidelines
• 2016 RTP/SCS Active Transportation Progress Update
• California Transportation Plan 2040
• Public Participation Plan

April 2015
• Public Health Analysis Framework
• Scenario Planning Model – Performance Results
• 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

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
• **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

**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.

Legend:

- **Light Grey Font**: Items already presented
- **Regular Grey Font**: Future Agenda Items
- **Bold Face Fonts**: New or revised Agenda Items
Item 3 Attachment:
Potential Policy Committee Meetings Outlook
## 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)
### Potential Policy Committee Meetings Outlook

<table>
<thead>
<tr>
<th>2015 Meeting Dates</th>
<th>Topic</th>
<th>Committee&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Joint</th>
<th>TC</th>
<th>CEHD</th>
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<td><strong>March 5</strong></td>
<td>Draft Scenario Planning Matrix</td>
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<td><strong>April 2</strong></td>
<td>Focus on System Operation and Preservation</td>
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<td><strong>May 7</strong></td>
<td>Draft Scenario Planning and SCS Workshops Rollout</td>
<td>General Assembly</td>
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<td>Performance Measures and Goals</td>
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<td>Growth Forecast/Land Use &amp; Transit-Oriented Development Strategies</td>
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<td>2016 South Coast Air Quality Management Plan</td>
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<td>Base Year and No-Build (Baseline) System Performance</td>
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<td><strong>July - Date TBD</strong></td>
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<td><strong>August - Date TBD&lt;sup&gt;2&lt;/sup&gt;</strong></td>
<td>Summary of Findings from Workshops &amp; How Incorporated into Draft Plan</td>
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<td>PEIR Approaches to Alternatives</td>
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<td>Draft Transportation Finance Plan</td>
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<td><strong>September 3</strong></td>
<td>Review and Consider Staff Recommendation on All Elements of Draft 2016 RTP/SCS</td>
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<td>PEIR Findings, Draft Technical Studies, and Draft PEIR</td>
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<td>Draft Transportation Conformity Determination</td>
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<td>Transmittal of Draft 2016 South Coast Air Quality Management Plan Appendix IV-C</td>
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<td><strong>October 8</strong></td>
<td>Consideration of the Release of Draft PEIR and Draft 2016 RTP/SCS</td>
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</table>

<sup>1</sup> Committee abbreviations include (in order of appearance): Joint (Joint Policy Committee); TC (Transportation Committee); CEHD (Community, Economic & Human Development Committee); and EEC (Energy & Environment Committee).

<sup>2</sup> Meeting may not be necessary depending on progress. If it were to occur, it could allow the September 3 meeting to be more targeted in its focus.
## Additional Topic Areas Not Directly Related to the 2016-2040 RTP/SCS that Must be Addressed by the Regional Council/Policy Committees During Calendar Year 2015

<table>
<thead>
<tr>
<th>2015 Meeting Dates</th>
<th>Topic</th>
<th>Committee¹</th>
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<tbody>
<tr>
<td></td>
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<td>RC</td>
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<tr>
<td>March 5</td>
<td>Strategic Growth Council (SGC) Affordable Housing and Sustainable Communities (AHSC) Concept Application Review</td>
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<tr>
<td>April 2</td>
<td>2015 Active Transportation Program Regional Guidelines</td>
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<td>SANBAG Transportation Control Measure (TCM) Substitution</td>
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<td>SGC AHSC Full Application Review Criteria</td>
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<td>Election of Chairs and Vice Chairs</td>
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<td>Regional Housing Needs Assessment (RHNA) and Housing Element Subcommittee Final Report</td>
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<td>May 7</td>
<td>RHNA and Housing Element Subcommittee Final Report</td>
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<td>June 4</td>
<td>Metro and RCTC TCM Substitutions</td>
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<tr>
<td>July 2</td>
<td>Metro and RCTC TCM Substitutions</td>
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</tbody>
</table>

¹ Committee abbreviations include (in order of appearance): RC (Regional Council); Joint (Joint Policy Committee); TC (Transportation Committee); CEHD (Community, Economic & Human Development Committee); and EEC (Energy & Environment Committee).
Item 4 Attachment:
(Under Separate Cover)
Item 5 Attachment:
2016 Draft Scenario Matrix
To help facilitate policy discussions during the development of the draft Regional Transportation Plan/Sustainable Communities Strategy, SCAG will develop one baseline and three additional scenarios to evaluate how each performs in terms of sustainability, mobility and other performance metrics. In response to stakeholder input, scenarios A and B include expanded policy concepts to target health, social equity and reflect advancements in technology. The policy concepts refer to visioning for new land use, transportation, or housing decisions.

### Preliminary Scenario Planning Matrix

**As of March 13, 2015**

#### POLICY INPUTS

<table>
<thead>
<tr>
<th>POLICY INPUTS</th>
<th>POLICY A</th>
<th>POLICY B</th>
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<tr>
<td><strong>AS OF 2012</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
<td><strong>POLICY B</strong></td>
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<tr>
<td><strong>Updated 2012 Plan/Local Input</strong></td>
<td><strong>Updated 2012 Plan/Local Input</strong></td>
<td><strong>Push the envelope. Comprehensive &quot;short trip&quot; strategy. Maximize GHG, air quality, livability, public health, EJ, affordability benefits. Assume profound technology effects</strong></td>
</tr>
<tr>
<td><strong>Scenario 2 + Add additional high quality (HQ) transit corridors based on feedback from transit operators + Livable Blvd/Complete Corridors (transit + Active Transportation (AT) + LU Strategy)</strong></td>
<td><strong>Scenario 2 + Focus on AT for regional trips. Expanded Regional Corridors. First/last Mile implementation. Livable Blvd/Complete Corridors (transit + AT + LU Strategy)</strong></td>
<td><strong>Scenario 3 + Comprehensive &quot;short trip&quot; strategy, including AT + shared-use, Neighborhood Electric Vehicle (NEV), etc.</strong></td>
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<tr>
<td><strong>Scenario 2 + Target 70/30 Multi-Family (MF)/Single-Family (SF) housing type for new development. Focus on rail corridors and HQTAs.</strong></td>
<td><strong>Scenario 2 + Any further modifications reflecting recent economic trends and legislative initiatives</strong></td>
<td><strong>Unconstrained</strong></td>
</tr>
<tr>
<td><strong>Scenario 2 + 25% increase in system preservation</strong></td>
<td><strong>Scenario 2 + Assume additional (modest) benefits - e.g. 1-2% reduction home-based work (HBW) trips, 5% speed, capacity increase</strong></td>
<td><strong>Scenario 3 + + Assume additional (aggressive) benefits - e.g. 2-3% reduction HBW trips, 7% speed, capacity increase</strong></td>
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<tr>
<td><strong>Scenario 2 + 20% decrease headway, reduced/eliminated fares (funded from increased VMT fee/finance innovation)</strong></td>
<td><strong>Scenario 2 + Assume a modest rate/depth of penetration of new transportation innovations; Primarily private investment, Minimal supportive public policy</strong></td>
<td><strong>Scenario 3 + Assume a modest rate/depth of penetration of new transportation innovations; Public &amp; private investment; More supportive public policy</strong></td>
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<tr>
<td><strong>Scenario 2 + Strategic plan projects</strong></td>
<td><strong>Scenario 2 + + Assume additional (aggressive) benefits - e.g. 2-3% reduction HBW trips, 7% speed, capacity increase</strong></td>
<td><strong>Scenario 3 + Target 70/30 MF/SF housing type for new development</strong></td>
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<td><strong>Scenario 3 + Avoid critical sea-level rise, natural hazard areas + Exclude unprotected, high quality habitat areas</strong></td>
<td><strong>Scenario 3 + Strategic plan projects</strong></td>
<td><strong>Scenario 3 + Avoid critical sea-level rise, natural hazard areas + Exclude unprotected, high quality habitat areas</strong></td>
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<tr>
<td><strong>Scenario 3 + 2012 plan amendment 2 + New CTC input for 2016 plan</strong></td>
<td><strong>Scenario 3 + Assume additional (modest) benefits - e.g. 1-2% reduction home-based work (HBW) trips, 5% speed, capacity increase</strong></td>
<td><strong>Scenario 3 + Assume additional (aggressive) benefits - e.g. 2-3% reduction HBW trips, 7% speed, capacity increase</strong></td>
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#### PLAN ELEMENTS - DATA INPUT CATEGORIES

<table>
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<tr>
<th>PLAN ELEMENTS - DATA INPUT CATEGORIES</th>
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<tbody>
<tr>
<td><strong>Land Use Socio-Economic Data (SED) &amp; Housing</strong></td>
<td><strong>Updated 2012 Plan/Local Input</strong></td>
<td><strong>Updated 2012 Plan/Local Input</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<tr>
<td><strong>Farm &amp; Natural Lands Conservation</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<tr>
<td><strong>Highway/Roadway Network (includes freight)</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<tr>
<td><strong>Transit/High-Speed Rail</strong></td>
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<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<td><strong>Active Transportation</strong></td>
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<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<td><strong>Technology/Innovation</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<tr>
<td><strong>Finance Pricing/Incentives</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
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<tr>
<td><strong>Transportation Demand Management (TDM) &amp; Transportation System Management (TSM)</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>Basecase</strong></td>
<td><strong>POLICY A</strong></td>
<td><strong>POLICY B</strong></td>
</tr>
</tbody>
</table>

#### PERFORMANCE METRICS

**POLICY DRIVERS/PERFORMANCE METRICS: ACCESSIBILITY | CLIMATE RESILIENCE & ADAPTATION | ECONOMY | ENVIRONMENTAL JUSTICE | MOBILITY | PUBLIC HEALTH | SOCIAL EQUITY | SUSTAINABILITY**
Item 6 Attachment:
CALTRANS California Transportation Plan 2040
California Transportation Plan 2040

Integrating California’s Transportation Future
What is the CTP2040?

It is a vision for California’s Transportation Future.

The California Transportation Plan (CTP) is a statewide, long-range transportation policy plan designed to meet the State’s future transportation needs. It looks at the State’s Transportation needs for the next 25 years.

Caltrans prepares the CTP in response to federal (Map 21) and State (SB 391) laws and requirements every five years.
Why it is important

1. Better understand interregional travel patterns and promote system cohesiveness

2. Summary of trends, challenges and themes from around the State

3. Forum to elevate issues to policy and decision makers and better coordination in general

4. Data consistency and transparency on interregional and freight movement

5. We need your input on policies, strategies and performance measures
Sustainable Transportation Future

- Reduced per Capita VMT
- Reduced Green House Gas (GHG) Emissions
- Increased Accessibility
- Increased Livability
- Increased Economic Prosperity
- Improved Safety
- Improved Public Health
- Improved Multimodal Mobility
The CTP 2040 will integrate a detailed planning approach that is consistent with the national goals specified by the federal surface transportation reauthorization bill MAP-21: safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability and reduced project delivery delays.
Key Legislation

• **AB 32, the Global Warming Solution Act of 2006**, requires reduction of greenhouse gas emissions to 1990 levels by 2020.

• **SB 375** requires sustainable communities strategies (SCS)

• **SB 391** requires Caltrans to update the CTP every five years to show how to achieve statewide greenhouse gas emission (GHG) reduction consistent with Executive Order S-3-05

• **AB 857 – State Planning Priorities** requires equitable infill development

• **SB 743** changes the California Environmental Quality Act (CEQA) criteria to implement GHG emissions reduction

• **Executive Order S-3-05** calls for emissions to be reduced to 80% below 1990 levels by 2050
Senate Bill 391 (Liu)

Requires Caltrans to:

• Identify the statewide integrated multimodal transportation system

• Prepare Interim Report (CIB) to legislature, by December 31, 2012, based on SB 375 sustainable communities strategies and their influence statewide

• Develop State Transportation Plan (CTP) by December 31, 2015 that identifies the integrated, multimodal system needed to achieve maximum feasible greenhouse gas reductions

Three Major Elements

1. Integrating statewide modal plans and programs

2. Building upon regional transportation plans and Sustainable Community Strategies

3. Developing robust modeling tools to analyze different scenarios and strategies
The CTP 2040 Vision:

California’s transportation system is **safe**, **sustainable**, and **globally competitive**. It provides **reliable** and **efficient** mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character.
Key to this vision is the 3 Es of sustainability:
CTP Integrates the Statewide Modal Plans

**Interregional Plan**
Interregional Transportation Strategic Plan
2015

**Freight Plan**
Freight Mobility Plan
2014

**Rail Plan**
California State Rail Plan
2013/2017

**Transit Plan**
Statewide Transit Strategic Plan
2012/Update being scoped

**Aviation Plan**
California Aviation System Plan
2011/2016

Bicycle/Pedestrian Plan
2017
Programs

INTEGRATES STATEWIDE PROGRAMS

CALIFORNIA ESSENTIAL HABITAT CONNECTIVITY PROJECT

Climate Action Program at Caltrans

Smart Mobility FRAMEWORK

Regional Advance Mitigation Planning (RAMP) Website

Climate Change Scoping Plan

Caltrans

CTP2040

CALIFORNIA TRANSPORTATION PLAN
THE VISION SUSTAINABILITY

California's transportation system is safe, sustainable, and globally competitive. It provides reliable and efficient mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character. This integrated, connected, and resilient multimodal system supports a prosperous economy, human and environmental health, and social equity.

THE GOALS

1. Improve Multimodal Mobility and Accessibility for All People
2. Preserve the Multimodal Transportation System
3. Support a Vibrant Economy
4. Improve Public Safety and Security
5. Foster Liveable and Healthy Communities and Promote Social Equity
6. Practice Environmental Stewardship

THE POLICIES

POLICY 1
- Manage and Operate an Efficient Integrated System
- Apply Sustainable Preventative Maintenance and Rehabilitation Strategies
- Support Transportation Choices to Enhance Economic Activity
- Reduce Fatalities, Serious Injuries, and Collisions
- Expand Engagement in Multimodal Transportation Planning and Decision Making
- Integrate Environmental Considerations in All Stages of Planning and Implementation

POLICY 2
- Invest Strategically to Optimize System Performance
- Evaluate Multimodal Life Cycle Costs in Project Decision Making
- Enhance Freight Mobility, Reliability, and Global Competitiveness
- Provide for System Security, Emergency Preparedness, Response, and Recovery
- Integrate Multimodal Transportation and Land Use Development
- Conserve and Enhance Natural, Agricultural, and Cultural Resources

POLICY 3
- Provide Viable and Equitable Multimodal Choices Including Active Transportation
- Adapt the Transportation System to Reduce Impacts from Climate Change
- Seek Sustainable and Flexible Funding to Maintain and Improve the System
- Integrate Health and Social Equity in Transportation Planning and Decision Making
- Reduce Greenhouse Gas Emissions and Other Air Pollutants

POLICY 4
- Transform to a Clean and Energy Efficient Transportation System

www.californiatransportationplan2040.org
California Department of Transportation, November 2013
Chapter 1  Purpose and Context
Chapter 2  The Transportation System
Chapter 3  Trends and Opportunities
Chapter 4  Native American Transportation
Chapter 5  Revenues and Expenditures
Chapter 6  Goals to Move Forward
Chapter 7  Analysis and Outcomes
Chapter 8  Recommendations
Transportation Trends & Opportunities

- Demographics
- Economic Prosperity
- Transportation Funding
- Climate Change and GHG Reductions
- Freight Mobility
- Fuel, Energy and Technology
- Sustainability in Tribal, Rural, and Small Town Communities
- Public Health
- Housing and Land Use
Goals

1. Improve Multimodal Mobility and Accessibility for All People

2. Preserve the Multimodal Transportation System

3. Support a Vibrant Economy

4. Improve Public Safety and Security

5. Foster Livable and Healthy Communities and Promote Social Equity

6. Practice Environmental Stewardship
**Performance Based Planning**

**Where we want to go**

**Goal**
Key Desired Outcome

**Policy**
Measureable statement that supports a goal or an outcome to achieve under each goal

**Strategy**
Specific programs, etc. to achieve policy

**PM***
Support strategies/policies by tracking results over time

**Example**
G: Improve public safety and security
P: Reduce fatalities, serious injuries, and collisions
S: Maintain and update the California SHSP
PM***: Fatalities/serious injuries per VMT

*PMs will have targets to identify a specific level of performance desired over a certain timeframe.
Goals

1. Improve Multimodal Mobility and Accessibility for All People

POLICY 1
Manage and Operate an Efficient Integrated System

POLICY 2
Invest Strategically to Optimize System Performance

POLICY 3
Provide Viable and Equitable Multimodal Choices Including Active Transportation
Goals

2. Preserve the Multimodal Transportation System

**Policy 1**
- Apply Sustainable Preventative Maintenance and Rehabilitation Strategies

**Policy 2**
- Evaluate Multimodal Life Cycle Costs in Project Decision Making

**Policy 3**
- Adapt the Transportation System to Reduce Impacts from Climate Change
Goals

3 Support a Vibrant Economy

POLICY 1
Support Transportation Choices to Enhance Economic Activity

POLICY 2
Enhance Freight Mobility, Reliability, and Global Competitiveness

POLICY 3
Seek Sustainable and Flexible Funding to Maintain and Improve the System
Goals

4. Improve Public Safety and Security

**POLICY 1**
Reduce Fatalities, Serious Injuries, and Collisions

**POLICY 2**
Goals

5. Foster Livable and Healthy Communities and Promote Social Equity

POLICY 1
Expand Engagement in Multimodal Transportation Planning and Decision Making

POLICY 2
Integrate Multimodal Transportation and Land Use Development

POLICY 3
Integrate Health and Social Equity in Transportation Planning and Decision Making
Goals

Practice Environmental Stewardship

POLICY 1
Integrate Environmental Considerations in All Stages of Planning and Implementation

POLICY 2
Conserve and Enhance Natural, Agricultural, and Cultural Resources

POLICY 3
Reduce Greenhouse Gas Emissions and Other Air Pollutants

POLICY 4
Transform to a Clean and Energy Efficient Transportation System
DRAFT Alternatives & Analysis

A Suite of Analytic Tools For Analysis of Multi-Modal Transportation, Air Quality and Economic Impacts.

Average Annual % Change

- Population
- Employment
Trip Types Captured by Statewide Model
CTP 2040 Alternatives DRAFT

Alternatives

Alt 1
Planned

Alt 2
Planned + Future CTP Strategies

Alt 3
Meeting the Goals

Statewide Strategy Packages

RTP/SCS, Statewide Modal Plans and cleaner car/truck standards

Alternative 1 + CTP 2040 Strategies: pricing, mode shift, operational efficiencies, transportation Alts.

Alternative 2 + Aggressive vehicle fleet mix from ARB Vision Model

Results

CSTDM/Off Model

*Mode Split (Auto, Air, Bike, Ped, Rail, Transit)
*VMT
*VHD
*Trips (interregional)
*Commodity flow by Tonnage and Mode (Air, Marine, Truck, Rail)

TREDIS
*Jobs
*GSP
*Income

Vision
GHG Emissions using the base fleet mix/tech.

Vision
GHG Emissions using the base fleet mix/tech.

Vision
GHG Emissions using aggressive fleet mix/tech.
Modeling our Alternatives

CTP2040® MODELING

Policy Scenarios
(Developed by the PAC & TAC)

CSTDM
(California Statewide Travel Demand Model)

Post Processing (Off Model)

CSTDM & Post Processing Results
- VMT
- VHD
- Trips
- Mode Split
  (Auto, Air, Bike, Ped, Rail, Transit)

Vision
- Using various fleet mix and technology

TREDIS
(Transportation Economic Deployment Impact System)
- Jobs
- GSP
- Income

FINAL RESULTS:
- GHG Emissions
  - GSP
  - Income
- Mode Split (Auto, Air, Bike, Ped, Rail, Transit)
  - VMT
  - VHD
  - Trips

Inputs

Model

Outputs

Economic & Emissions Modeling
# Recommended GHG Strategies

<table>
<thead>
<tr>
<th>Key Strategy Clusters</th>
<th>Strategies</th>
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<tbody>
<tr>
<td>Pricing</td>
<td>Road Pricing Strategy</td>
</tr>
<tr>
<td>Transportation Alternatives</td>
<td>Telecommute</td>
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<td></td>
<td>Carpool</td>
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<tr>
<td></td>
<td>Car sharing</td>
</tr>
<tr>
<td>Mode Shift</td>
<td>Transit service improvements</td>
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<tr>
<td></td>
<td>High Speed Rail</td>
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<tr>
<td></td>
<td>Bus Rapid Transit</td>
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<td></td>
<td>Expand bike</td>
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<td></td>
<td>Expand pedestrian</td>
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<tr>
<td></td>
<td>Carpool Lane Occupancy</td>
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<tr>
<td></td>
<td>Increased HOV Lanes</td>
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<tr>
<td>Operational Efficiency</td>
<td>Caltrans’ TMS Master Plan</td>
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<tr>
<td></td>
<td>Intelligent Transportation System elements</td>
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<tr>
<td></td>
<td>Incident and emergency management</td>
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# DRAFT Alternatives & Analysis

<table>
<thead>
<tr>
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<th>Alternative</th>
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<tr>
<td><strong>MPO SCS Land Use &amp; Transportation Plans</strong></td>
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<tr>
<td><strong>Caltrans Modal Plan</strong></td>
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<tr>
<td><strong>ARB Advanced Clean Cars and In-Use Standards</strong></td>
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<tr>
<td><strong>Transportation VMT Reduction Strategies</strong></td>
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<tr>
<td><strong>Additional future fuel efficiencies and vehicle technologies</strong></td>
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</table>
Transportation GHG Reduction Strategies

- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

- 10%
- 0%
- -10%
- -20%
- -30%
- -40%
- -50%
- -60%
- -70%
- -80%

2020
Alt 1
No

2040
Alt 1
No
Alt 2
No
Alt 3
No

2050
Alt 1
No
Alt 2
No
Alt 3
Yes
Meets Requirement?

2050 Alt 3: Meets AB 32 Requirement (80% below 1990)
Economic Impact Analysis

The economic impact analysis of the CTP 2040 focuses on the VMT reduction strategies described in Alternative 2. Pricing strategies target motorists by imposing additional costs for utilizing the roadway transportation system. The increased cost is offset by making active transportation modes a viable substitute to vehicle travel through capacity and network improvements.

Changes in travel patterns resulting from the implementation of the strategies were estimated using the CSTDM. These outputs were used in the economic analysis.

<table>
<thead>
<tr>
<th></th>
<th>2012/15</th>
<th>2016/20</th>
<th>2021/25</th>
<th>2026/30</th>
<th>2031/35</th>
<th>2036/40</th>
<th>Net Total (2040)</th>
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<tr>
<td><strong>GSP ($mil)</strong></td>
<td>$(2,000)</td>
<td>$16,000</td>
<td>$33,000</td>
<td>$23,000</td>
<td>$11,000</td>
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<td>$79,000</td>
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<td><strong>Jobs</strong></td>
<td>(20)</td>
<td>87,000</td>
<td>2,200</td>
<td>(23,000)</td>
<td>(26,000)</td>
<td>(28,000)</td>
<td>13,000</td>
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<tr>
<td><strong>Wage ($mil)</strong></td>
<td>$(1,000)</td>
<td>$11,000</td>
<td>$23,000</td>
<td>$18,000</td>
<td>$10,000</td>
<td>$2,000</td>
<td>$64,000</td>
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</table>
DRAFT Recommendations

Broad-based categories

Activities that can be achieved in various time spans:

• Short-Range (next 2 Years)
• Mid-Range (next 3-5 Years)
• Long-Range (next 5-20 years)
DRAFT Recommendation Themes

- Safety
- Sustainability
- Multi-modal System Enhancements
- System Efficiency and Technology
- Modeling and Analysis Improvements
DRAFT Recommendations

Safety

Improve public safety and security
Sustainability

• Foster Livable, Healthy Communities and Social Equity
• Practice Environmental Stewardship
• Support Economic Vibrancy
• Obtain Permanent Funding
• Address Climate Adaptation and Resiliency
DRAFT Recommendations

Multi-modal System Enhancements

• Improve Destination Access
• Active Transportation System (Biking and Walking)
• Expand Transit Services and Operations
• Improve Multimodal Mobility and Accessibility for All
• Promote Sustainability in Rural Communities and Small Towns
Performance Based Planning

DRAFT Recommendations

System Efficiency and Technology

- “Stream-line” Delivery
- Coordinate Data and Analysis
- Systemize Traffic Management
- Manage Transportation Demand
- Invest Strategically
- Expand Freight Network Capacity
- Long Distance and Multimodal Travel
DRAFT Recommendations

Modeling and Analysis Improvements

• Reduce VMT
• Reduce GHG Emissions in Transportation
• Advance Modeling and Data
Policy/Technical Advisory Committees

Policy Advisory Committee
- MPO/RTPA planning staff and Tribes
- State Agencies
  - SB 391 specified
  - Other key State agencies
- Advocacy Groups – modal, environmental, local, etc.
- FHWA and US EPA

Technical Advisory Committee
- MPO/RTPA technical staff
- Key State agency staff – ARB, CEC and OPR
- CT HQ’s staff – modal plans
- District modelers
CTP 2040
CALIFORNIA TRANSPORTATION PLAN
Scope Document & Timeline

2013
- OUTREACH
  Communication & Public Participation
  - WEB PORTAL
  - FOCUS GROUPS
  - TRIBAL MEETINGS

- CONSULTATION
  - POLICY & TECHNICAL COMMITTEES
  - REGIONAL AGENCIES
  - TRIBAL GOVERNMENTS

- PRODUCTS
  CTP Development
  - CTP 2040 FACT SHEET
  - CTP 2040 SPANISH FACT SHEET

2014
- OUTREACH
  Communication & Public Participation
  - WEB PORTAL

- CONSULTATION
  - POLICY & TECHNICAL COMMITTEES
  - TRIBAL GOVERNMENTS
  - REGIONAL AGENCIES

- PRODUCTS
  CTP Development
  - CTP 2040 - ADMINISTRATIVE DRAFT
  - CTP 2040 BROCHURE
  - CTP 2040 TRIBAL FACT SHEET
  - SCOPE DOCUMENT & TIMELINE

2015
- OUTREACH
  Communication & Public Participation
  - WEB PORTAL
  - WORKSHOPS
    Fresno, Los Angeles, Oakland
    Redding, Sacramento, San Diego

- CONSULTATION
  - POLICY & TECHNICAL COMMITTEES
  - REGIONAL AGENCIES
  - TRIBAL GOVERNMENTS

- PRODUCTS
  CTP Development
  - CTP 2040 - DRAFT
  - CTP 2040 - FINAL PLAN
  - AGENCY APPROVAL

www.californiaktransportationplan2040.org
Statewide Outreach

WORKING WITH OUR PARTNERS

- Caltrans is holding meetings statewide in March/April with MPO/RTPA representatives to review and provide comments on the Public Review Draft.

- This will coincide with the timing of the seven public workshops.

- **Webinars**
  - March 5th (Public)
  - March 11th (Tribal)
Seven *General Public* Focus Groups - Summer 2013

- **Locations:**
  - Sacramento
  - Fresno/Madera (Central Valley)
  - Los Angeles (Metro)
  - Palm Desert (Coachella Valley)
  - Oakland (Bay Area)
  - Redding
  - Eureka

- Between 10 and 13 participants at each session
- Polling and open-ended questions
Four Tribal Listening Sessions Groups held July - December of 2013

- Locations:
  - San Diego County
  - Woodland
  - Redding
  - Lemoore

- Also covered the ITSP, Freight Mobility Plan, Rail Plan, and Strategic Highway Safety Plan

- Main objective - get Tribes involved early in the process and hear from them about their issues, concerns, goals, etc.

- Around 20 Tribal Members at each session
Statewide Outreach

PUBLIC WORKSHOPS

Sacramento: Tuesday, March 10, 2015
North Natomas Library
4660 Via Ingoglia Sacramento, CA

Redding: Thursday, March 12, 2015,
City of Redding Community Room,
777 Cypress Avenue, Redding, CA

San Diego: Tuesday, March 17, 2015
Valencia Park/Malcolm X Branch Library and Performing Arts Center
5148 Market Street, San Diego, CA

Riverside: Wednesday, March 18, 2015
Riverside City College
4800 Magnolia Avenue, Riverside, CA

Los Angeles: Thursday, March 19, 2015
Southern California Association of Governments (SCAG),
818 West 7th St, 12th floor, Los Angeles, CA 90017

Fresno: Tuesday, March 24, 2015
Fresno City College,
1101 E. University Avenue, Fresno, California 93741

Oakland: Thursday, March 26, 2015
Metropolitan Transportation Commission,
101 Eighth Street, Oakland, CA 94607
Timeline

WHAT’S NEXT

- Workshops: March 2015
- Comments Due: April 17, 2015
- All Final Modeling Done: July 2015
- Final Draft: August 2015
- CTP 2040 to Governor & CalSTA: Dec. 31, 2015
Public Notice of the 45-day Public Review Period of the California Transportation Plan (CTP 2040)

We welcome your input.

The California Transportation Plan (CTP 2040) is now available for public review. The public comment period for this document begins Monday, March 2, 2015 and ends Friday, April 17, 2015, 5:00 PM PST.

The CTP is a statewide, long-range transportation policy plan designed to meet California’s future mobility needs and reduce greenhouse gas (GHG) emissions. The plan envisions a fully integrated, multimodal, sustainable transportation system that supports economic vitality, protects natural resources, promotes the health and well-being of all Californians, and meets people’s needs equitably.

We invite you to provide your ideas, comments and recommendations specific to the CTP 2040 plan.

To submit your input on-line, please fill out the form below and click the Submit button. You will receive a confirmation that you may print and keep for your records. If you wish to submit your input manually via mail, fax or email, please go to our 45 Day Manual Comment Form.

CTP 2040 ON-LINE PUBLIC COMMENT FORM

Your Information:
We ask for your information so that we can contact you for clarification if needed.

First Name: __________________________ (required)
Get Involved…

www.californiatransporationplan2040.org

✓ Visit the website – Read the plan, signup for updates and notifications

✉ Send us an email: CTP2040@dot.ca.gov

🐦 Follow us on Twitter: @CaltransHQ
Item 7 Attachment:
2016 RTP/SCS Performance Measures
2016 RTP/ SCS Performance Measures Update

Technical Working Group

March 19, 2015

Ping Chang & Naresh Amatya

SCAG Staff
Presentation Outline

• Background
• Evolving/Enhanced Performance Measures (PM) Framework
  - Enhancement in 2012 vs. 2016
• Highlights of 2016 PM Updates
• Core vs. Additional Performance Measures
Performance Measures
Background

• A key component of performance-based planning
• SCAG has included performance measures since the 1998 RTP
• Quantitative measures of the extent that plan would accomplish its goals
  - Used during plan development to evaluate scenarios/plan performance
  - Used after plan adoption to track progress
    (Note: for April TWG discussion)
Performance Measures Framework Enhancement for 2012 RTP/SCS

• For the 2012 RTP/SCS, the SB 375 requirement of SCS generated needs to go beyond transportation-focused measures
  - Need to address land use/urban form:
    Added a new “Location Efficiency” category
  - Need to estimate co-benefits:
    Developed new measures to estimate the resource efficiency & health co-benefits of scenarios. Not part of final PMs.
Performance Measures Framework
Enhancement Needs for 2016 RTP/SCS

- Growing interests and needs to address impacts/benefits on public health
- Protect the environment and residents’ health is an RTP/SCS goal
- Need to address MAP-21 requirements as feasible since rulemaking still in progress
- Need to have a consistent set of PMs to evaluate scenarios and the final plan
2012 RTP/SCS Plan Performance Measures (Categories)

1) Location Efficiency (new in 2012)
2) Mobility and Accessibility
3) Safety and Health
4) Environmental Quality
5) Economic Well Being
6) Investment Effectiveness
7) System Sustainability
## Use of Performance Measures to Evaluate Scenarios/ Final Plan

<table>
<thead>
<tr>
<th>Performance Measures (PMs) Categories</th>
<th>2012 RTP/SCS Scenarios</th>
<th>Plan</th>
<th>2016 RTP/SCS Scenarios</th>
<th>Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. 2012 RTP/SCS</td>
<td></td>
<td>X</td>
<td>I. (Updated) 2012 RTP/SCS PMs</td>
<td>X</td>
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<tr>
<td>- Location Efficiency</td>
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<tr>
<td>- Mobility and Accessibility</td>
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<tr>
<td>- System Sustainability</td>
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<tr>
<td>II. Scenario Planning Model (SPM)</td>
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<td></td>
<td>II. (Enhanced) SPM PMs</td>
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<tr>
<td>- Land consumption</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- Transportation &amp; GHG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Resources Efficiency (Energy, Water, Fiscal)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>- Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Environmental Justice (EJ)</td>
<td>X</td>
<td></td>
<td>III. (Enhanced) EJ PMs</td>
<td>X</td>
</tr>
</tbody>
</table>
2016 RTP/SCS Performance Measures (Draft Categories)

1) Location Efficiency*
2) Mobility and Accessibility*
3) Health and Safety*
4) Environmental Quality*
5) Economic Well Being*
6) Investment Effectiveness*
7) System Sustainability*
8) Resource Efficiency**
9) Environmental Justice**

* 2012 RTP/SCS performance measure (PM) categories
** Proposed new categories for 2016 RTP/SCS PMs
2016 RTP/SCS Performance Measures

1) Core Performance Measures
   - Focus on land use/transportation/air quality/safety & health/economic related measures and EJ at the category level
   - Address federal requirements in conformity, MAP-21, EJ & Title 6
   - Address state requirements in SB 375

2) Additional Performance Measures
   - Focus on co-benefits from resource efficiency (e.g., energy, water & local fiscal impacts), and additional EJ performance measures
2016 RTP/SCS
Core Performance Measures Proposed Additions

1) Location Efficiency
   - VMT/per capita
   - Mode share of transit

2) Mobility & Accessibility (No change from 2012)

3) Safety & Health
   - Mode share of walking & biking
   - Physical activity/weight related disease
   - Respiration/pollution-related disease

4) Environmental Quality (No change)

5) Economic Well-being (No change)
6) Investment Effectiveness (No change)
7) System Sustainability
   - State highway system pavement condition
   - Local roads pavement condition
8) Environmental Justice

* See Table 1 attached for further details on core performance measures
2016 RTP/SCS
Additional Performance Measures

1) Resource Efficiency
   - energy use & GHG co-benefits
   - water use & GHG co-benefits
   - local fiscal impacts

2) Environmental Justice
   - No unaddressed disproportionately high or adverse impacts to low income or minority populations

*See Table 2 attached for further details on additional performance measures*
2016 RTP/SCS
Additional Performance Measures

2) Environmental Justice (cont’d)

- RTP Revenue Sources/Tax Burdens
- Share of Transportation System Usage
- RTP Project Investment Share by Income and Ethnicity
- Impacts from Funding Through VMT Fees (NEW in 2012)
- Distribution of Travel Time Savings and Travel Distance Savings
- Jobs-Housing Imbalance or Jobs-Housing Mismatch (NEW in 2012)
- Accessibility to Work/Shopping Opportunities
- Accessibility to Parks (NEW in 2008)
- Gentrification and Displacement (NEW in 2012)
- Environmental Impact Analysis (Air, Health, Noise)
- Rail-Related Impacts (NEW in 2012)
- Active Transportation Hazard (Proposed for 2016)
2016 RTP/SCS Performance Measures Update

Summary

• Achieve a more comprehensive set of performance measures with a core component
• Could use one consistent set of PMs to evaluate scenarios and final plan
• Fill important gaps (e.g., equity (EJ)-related performance measures)
• Support the estimates of plan benefits with a broader scope (by including public health and resource efficiency for energy, water & fiscal resources)
• Prepare to align with MAP-21 requirements (e.g., safety and system sustainability measures) while its rule-making is still in progress
2016 RTP/SCS Performance Measures Update
Timeline

March 19, 2015 – TWG Meeting on Performance Measures Update

April 16, 2015 – TWG Meeting on Monitoring Measures Update

June 4, 2015 – Joint Policy Committee Meeting on Goals, Performance & Monitoring Measures Update
For Further Information

Please contact:

Ping Chang, chang@scag.ca.gov, 213-236-1839

Naresh Amatya, Amatya@scag.ca.gov, 213-236-1885

Thank you!
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Performance Measure/Indicator</th>
<th>Definition</th>
<th>Performance Target</th>
<th>Data Sources Used</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 ProjectBaseline</td>
<td>Census (including annual American Community Survey), InfoUSARTP/SCS Socio-economic small area data</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 ProjectBaseline</td>
<td>Rapid Fire Scenario Planning Model</td>
</tr>
<tr>
<td>Mobility and Accessibility</td>
<td>Vehicle Miles Traveled (VMT) per capita</td>
<td></td>
<td>Improvement over No ProjectBaseline</td>
<td>Travel Demand Model</td>
</tr>
<tr>
<td></td>
<td>Mode share of transit</td>
<td>The share of transit of work and non-work trips respectively</td>
<td>Improvement over No ProjectBaseline</td>
<td>Travel Demand Model</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 ProjectBaseline</td>
<td>Travel Demand Model</td>
</tr>
<tr>
<td></td>
<td>Percent of work trips less than 3 miles</td>
<td>The share of total work and non-work trips which are fewer than 3 miles respectively</td>
<td>Improvement over No ProjectBaseline</td>
<td>Travel Demand Model</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 ProjectBaseline</td>
<td>Travel Demand Model</td>
</tr>
<tr>
<td></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 ProjectBaseline</td>
<td>Travel Demand Model</td>
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<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 ProjectBaseline</td>
<td>Travel Demand Model</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 ProjectBaseline</td>
<td>Travel Demand Model</td>
</tr>
<tr>
<td>Outcome</td>
<td>Performance Measure/Indicator</td>
<td>Definition</td>
<td>Performance Target</td>
<td>Data Sources Used</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>-------------------</td>
</tr>
<tr>
<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>
<td>Travel Demand Model</td>
<td></td>
</tr>
<tr>
<td>Safety and Health</td>
<td>Collision/accident rates by severity by mode</td>
<td>Accident rates per 100 million vehicle miles by mode (all, bicycle/pedestrian and fatality/killed) Number of fatalities and serious injuries by mode (all, bicycle/pedestrian)</td>
<td>Improvement over Base Year</td>
<td>CHP Accident Data Base, Travel Demand Model Mode Split Outputs</td>
</tr>
<tr>
<td>Criteria pollutants emissions</td>
<td>CO, NOX, PM2.5, PM10, and VOC</td>
<td>Meet Transportation Conformity requirements</td>
<td>Travel Demand Model /ARB EMFAC Model</td>
<td></td>
</tr>
<tr>
<td>Air pollution-related health measures¹</td>
<td>Respiratory/pollution-related disease incidence and costs</td>
<td>Improvement over No Project Baseline</td>
<td>Scenario Planning Model</td>
<td></td>
</tr>
<tr>
<td>Physical activity-related health measures²</td>
<td>Physical activity/weight related incidence and costs</td>
<td>Improvement over No Project Baseline</td>
<td>Scenario Planning Model</td>
<td></td>
</tr>
<tr>
<td>Mode share of walking and biking</td>
<td>Mode share of walking and biking for work and non-work trips respectively</td>
<td>Improvement over No Project Baseline</td>
<td>Travel Demand Model</td>
<td></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) Meet Transportation Conformity requirements and SB 375 per capita GHG reduction targets</td>
<td>Travel Demand Model /ARB EMFAC Model</td>
<td></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>
<td>Regional Economic Model REMI</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>
<td>Regional Economic Model REMI</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>
<td>Regional Economic Model REMI</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>
<td>California Benefit Cost Model</td>
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</table>
**Table 1: 2016 RTP/SCS Core Performance Measures (Cont'd)**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Performance Measure/Indicator</th>
<th>Definition</th>
<th>Performance Target</th>
<th>Data Sources Used</th>
</tr>
</thead>
</table>
| System Sustainability    | Cost per capita to preserve multi-modal system to current and state of good repair conditions | Annual costs per capita required to preserve the multi-modal system to current conditions | Improvement over Base Year                               | Estimated using SHOPP Plan and recent California Transportation Commission 10-Year Needs Assessment  
Pavement Management System (Caltrans)  
Local Arterial Survey Database |
|                          | State Highway System Pavement Condition | Distressed share of State Highway Lane miles                               | Improvement over No-Project Baseline                     |                                                                                                              |
|                          | Local Roads Pavement Condition | Pavement Condition Index (PCI) on Local Roads                                | Improvement over No-Project Baseline                     |                                                                                                              |
| Environmental Justice    | See Table 2 for details       | See Table 2 for details                                                  | No unaddressed disproportionately high or adverse effects for low income or minority communities | See Table 2 for details                                                                                     |

*Please also see Table 2 on 2016 RTP/SCS Additional Performance Measures.*

1. **Performance measures used in the Scenario Planning stage of the 2012 RTP/SCS using the Rapid Fire Model**
2. **Performance measures expected from the new health module (in process of completion) in the Scenario Planning Model**

**Acronyms:**

- **CHP**: California Highway Patrol
- **EMFAC**: Emissions Factors
- **SHOPP**: State Highway Operation and Protection Program
### Table 2: 2016 RTP/SCS Additional Performance Measures* (March 14, 2015 Draft)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Performance Measure/Indicator</th>
<th>Definition</th>
<th>Performance Target</th>
<th>Data Sources Used</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resource Efficiency</strong></td>
<td>Energy consumption (buildings)^1</td>
<td>Residential energy use Commercial energy use Building related total energy costs Building related GHG emission</td>
<td>Improvement over No Project Baseline</td>
<td>Scenario Planning Model</td>
</tr>
<tr>
<td></td>
<td>Water consumption (buildings)^1</td>
<td>Indoor and outdoor water use Water costs Water related energy use Water related GHG emissions</td>
<td>Improvement over No Project Baseline</td>
<td>Scenario Planning Model</td>
</tr>
<tr>
<td><strong>Local Fiscal Impacts^4</strong></td>
<td>RTP revenue source in terms of tax burdens^2</td>
<td>Proportion of RTP/SCS revenue sources (taxable sales, income, and gasoline taxes) for low income and minority populations</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>Census Data, BLS Consumer Expenditure Survey Data, BOE Taxable Sales Data, SCAG’s Integrated Growth Forecast</td>
</tr>
<tr>
<td><strong>Environmental Justice</strong></td>
<td>Share of transportation system usages^3</td>
<td>Comparison of transportation system usage by mode for low income and minority households vs. share of each groups’ in the greater region</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>NHTS, SCAG’s Integrated Growth Forecast</td>
</tr>
<tr>
<td></td>
<td>RTP/SCS investments^5</td>
<td>Allocation of RTP/SCS investments by mode (bus, HOV lanes, commuter/high speed rail, highways/arterials, and light/heavy rail transit)</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>RTP/SCS Finance Strategy Data, Integrated Growth Forecast, RTP/SCS TDM Output</td>
</tr>
<tr>
<td></td>
<td>Distribution of travel time savings and travel distance reductions^4</td>
<td>Details what groups are overall benefiting as a result of the Plan in terms of travel time and distance savings</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>NHTS, SCAG’s Integrated Growth Forecast, RTP/SCS TDM Output</td>
</tr>
<tr>
<td></td>
<td>Job-housing imbalance or</td>
<td>Comparison of median earnings for</td>
<td>Establishing existing conditions – not</td>
<td>Census PUMS</td>
</tr>
</tbody>
</table>
Table 2: 2016 RTP/SCS Additional Performance Measures (Cont’d)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Performance Measure/Indicator</th>
<th>Definition</th>
<th>Performance Target</th>
<th>Data Sources Used</th>
</tr>
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<tbody>
<tr>
<td>job-housing mismatch²</td>
<td>intra-county vs. inter-county commuters for each of the six counties in the SCAG region</td>
<td>a performance measure for the Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessibility to employment and services²</td>
<td>The percentage of the population who can travel between work and home or between retail stores and home within 45 minutes during the morning peak period for both rail transit, bus, and auto modes</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>InfoUSA Employment Data, RTP/SCS TDM Output, Census Data, SCAG’s Integrated Growth Forecast, NHTS</td>
<td></td>
</tr>
<tr>
<td>Accessibility to parks²</td>
<td>The percent of population who can reach local, state, or national parks within 45 minutes of travel via rail transit, bus, and auto modes</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>SCAG’s Parcel Level Land Use Data, California Protected Areas Database (CPAD), RTP/SCS TDM Output, Integrated Growth Forecast, NHTS</td>
<td></td>
</tr>
<tr>
<td>Gentrification and displacement²</td>
<td>Examination of historical and projected demographic and housing trends for areas surrounding rail transit stations</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>High Quality Transit Areas (HQTAs), Census Data, NHTS</td>
<td></td>
</tr>
<tr>
<td>Air quality health impacts along freeway and highly traveled corridors²</td>
<td>Historical emissions and health data summarized for areas that have a high concentration of minority and low income population. Tabulation of health improvements resulting from the Plan</td>
<td>Historical data used to establish existing conditions – not a performance measure of the Plan. Otherwise, no unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>ARB Historical Emissions Data, SCAG’s Integrated Growth Forecast</td>
<td></td>
</tr>
<tr>
<td>Environmental impacts of plan and baseline scenarios²</td>
<td>Comparison of Plan and Baseline Scenarios; identification of areas that are lower performing as a result of the Plan, along with a breakdown of demographics for these areas</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>RTP/SCS Small Area Emissions Data (Base Year, Baseline &amp; Plan)</td>
<td></td>
</tr>
<tr>
<td>Aviation noise impacts²</td>
<td>Comparison of Plan and Baseline Scenarios; breakdown of population by race and ethnicity for low performing airport noise impacted</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>Projected Noise Impacts from Aircraft Operations for 2035 (from PEIR), SCAG’s Integrated Growth Forecast</td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td>Performance Measure/Indicator</td>
<td>Definition</td>
<td>Performance Target</td>
<td>Data Sources Used</td>
</tr>
<tr>
<td>---------</td>
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<td>-------------------</td>
</tr>
<tr>
<td><strong>Roadway noise impacts</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Comparison of Plan and Baseline Scenarios, identification of areas that are low performing as a result of the Plan; breakdown of population for these impacted areas by race/ethnicity and income</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>RTP/SCS TDM Output, SCAG’s Integrated Growth Forecast</td>
<td></td>
</tr>
<tr>
<td><strong>Active Transportation Hazard</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Comparison of Plan and Baseline Scenarios, identification of areas that are low performing as a result of the Plan; breakdown of population for these impacted areas by race/ethnicity and income</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>RTP/SCS TDM Output, SCAG’s Integrated Growth Forecast, SWITRS Data</td>
<td></td>
</tr>
<tr>
<td><strong>Rail-related impacts</strong>&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Breakdown of population by race and ethnicity for areas in close proximity to rail corridors and planned grade separations</td>
<td>No unaddressed disproportionately high or adverse effects for low income or minority communities</td>
<td>Rail Network Geodata, Rail Traffic Data, Grade Separations Geodata, Census Data, SCAG’s Integrated Growth Forecast</td>
<td></td>
</tr>
</tbody>
</table>

* Please also see Table 1: 2016 RTP/SCS Core Performance Measures
**Under Environmental Justice, additional information is included in the 2012 RTP/SCS Environmental Justice Technical Appendix.

1. Performance measures used in the Scenario Planning stage of the 2012 RTP/SCS using the Rapid Fire Model
2. Performance measures used in the Environmental Justice Analysis of the 2012 RTP/SCS

**Acronyms:**

**BLS**: Bureau of labor Statistics  
**BOE**: Board of Equalization  
**HOV**: High-occupant Vehicles  
**NHTS**: National Household Travel  
**SWITRS**: (California) Statewide Traffic Records System
Item 8 Attachment:
Asset Management and Condition Overview
Southern California Association of Governments

Asset Management Update

Los Angeles, CA
March 19, 2015

System Metrics Group, Inc.
Agenda

- Recent Asset Management Developments
- Update on Asset Management Results:
  - State Highway System
  - Local Roads
- Discussion
Recent Asset Management Developments
Federal Asset Management Developments

> MAP 21 Draft Performance Measures:

<table>
<thead>
<tr>
<th>Pavement</th>
<th>Bridges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Percentage of pavements on the Interstate System in Good condition</td>
<td>• Percentage of NHS Bridges Classified as in Good Condition</td>
</tr>
<tr>
<td>• Percentage of pavements on the Interstate System in Poor condition</td>
<td>• Percentage of NHS Bridges Classified as in Poor Condition.</td>
</tr>
<tr>
<td>• Percentage of pavements on the NHS (excluding the Interstate System) in Good condition</td>
<td></td>
</tr>
<tr>
<td>• Percentage of pavements on the NHS (excluding the Interstate System) in Poor condition</td>
<td></td>
</tr>
</tbody>
</table>
Federal Developments ... continued

- Proposed Target Setting:
  - Caltrans would establish 2- and 4-year targets for a 4-year performance period
  - SCAG must establish 4-year targets, but not 2-year targets
  - SCAG must establish targets by:
    - Either supporting the Caltrans statewide target, or
    - Defining a SCAG specific target each time that Caltrans establishes a target.
  - Caltrans would establish the first statewide targets one year after the effective date of the rule
  - SCAG would establish its targets 180 days after the Caltrans target has been set.
Federal Developments ... continued

- The NPRM states that Caltrans will make “significant” progress toward meeting targets during the reporting period when either of the actual condition either is equal to or better than either the Caltrans’ established target or the identified baseline condition.

- The FHWA believes that any improvement over the baseline, which represents a 0.1% improvement over four years, should be viewed as significant progress considering financial uncertainties many State DOTs are faced with today. Although a change of 0.1% may appear insignificant, this degree of improvement to a pavement or bridge system is difficult to achieve. It appears that the State can be making significant progress during the biennial reporting period, but after four years if the target is not met find itself in non-compliance.
Federal Developments ... continued

- If FHWA determines that Caltrans is not in compliance with the rule for pavement, then Caltrans must:
  1. Obligate, from the amount apportioned to California for the National Highway Performance Program (NHPP), an amount that is not less than the Interstate Maintenance apportionment for FY 2009, plus 2 percent per year compounded annually (for the 5 additional FYs after 2013)
  2. Transfer certain apportioned Surface Transportation Program (STP) funds equal to 10 percent of Interstate Maintenance apportionment for FY 2009. These funds would need to be used to improve Interstate pavement conditions (as provided under the pre-MAP-21 Interstate Maintenance Program).

- If not in compliance for bridges, then Caltrans would be required to obligate a set aside amount equal to 50 percent of the funds apportioned to California for fiscal year 2009 to carry out the Highway Bridge Program
State Developments

Governor’s Budget:

- Highway Repairs/Maintenance will get the average annual state share of federal and state fuel excise taxes ($2 billion), a relatively small portion of other one-time funding has gone to the repair/rehabilitation and maintenance of pavement, culverts, and bridges. The state’s share of ARRA, America Recovery and Reinvestment Act, funding for maintenance and repair projects on the state highway system was just $964 million, only 26 percent of the total awarded to California. An early loan repayment in 2014 provided $127 million for highway maintenance and repairs, and Proposition 1B provided $500 million for the State Highway Operation and Protection Program (SHOPP). Highway repairs/Maintenance needs $8 billion and is only being funded about $2 billion. With $6 billion missing there is going to have to be strategies to come up with the missing money.

- Effective project planning, Pavement Management System (PaveM), Pavement deteriorates at different rates depending on the type of traffic or weather conditions to which it is exposed. This data is now being tracked over time to measure rates and types of pavement deterioration. This will prioritize roads that need pavement and increase maintenance efficiency.
Update on Asset Management Results
State Highway System – Pavement Conditions Based on 2013 Pavement Conditions Survey

- Distressed Lane Miles
- Non-Distressed Lane Miles

<table>
<thead>
<tr>
<th>Location</th>
<th>Distressed Lane Miles</th>
<th>Non-Distressed Lane Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>13%</td>
<td>87%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>Orange</td>
<td>12%</td>
<td>88%</td>
</tr>
<tr>
<td>Riverside</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Ventura</td>
<td>19%</td>
<td>81%</td>
</tr>
</tbody>
</table>
State Highway System – Pavement Conditions Based on 2013 Pavement Conditions Survey

2013 Pavement Condition Survey
Location Summary

County: IMP, LA, ORA, RIV, SBD, VEN

- Major
- Minor
- Ride
## SHS Bridge Conditions

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Bridges</th>
<th>Number of Structurally Deficient Bridges</th>
<th>Number of Functionally Obsolete Bridges</th>
<th>Total Deficient</th>
<th>% Structurally Deficient</th>
<th>% Functionally Obsolete</th>
<th>% Deficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPERIAL</td>
<td>436</td>
<td>43</td>
<td>25</td>
<td>68</td>
<td>10%</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>LOS ANGELES</td>
<td>3,552</td>
<td>372</td>
<td>879</td>
<td>1,251</td>
<td>10%</td>
<td>25%</td>
<td>35%</td>
</tr>
<tr>
<td>ORANGE</td>
<td>1,117</td>
<td>65</td>
<td>246</td>
<td>311</td>
<td>6%</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>RIVERSIDE</td>
<td>1,074</td>
<td>107</td>
<td>121</td>
<td>228</td>
<td>10%</td>
<td>11%</td>
<td>21%</td>
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<tr>
<td>SAN BERNARDINO</td>
<td>1,384</td>
<td>170</td>
<td>77</td>
<td>247</td>
<td>12%</td>
<td>6%</td>
<td>18%</td>
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<tr>
<td>VENTURA</td>
<td>497</td>
<td>50</td>
<td>74</td>
<td>124</td>
<td>10%</td>
<td>15%</td>
<td>25%</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td><strong>8,060</strong></td>
<td><strong>807</strong></td>
<td><strong>1,422</strong></td>
<td><strong>2,229</strong></td>
<td><strong>10%</strong></td>
<td><strong>18%</strong></td>
<td><strong>28%</strong></td>
</tr>
</tbody>
</table>

"Structural Deficiency" and Functionally Obsolete" categories are defined by Federal guidance on "23 CFR 650 D". These categories are based on appraisals of approach roadway alignment; culvert and retaining walls; deck/deck geometry; structural condition; substructures; superstructures; under clearances; and waterway adequacy.
Draft 2015 SHOPP Plan
Almost $6B per year unfunded over 10 years

Figure 3. Comparison of Needs vs. Programmed SHOPP ($ Billions)
## Local Roads ... recent update

<table>
<thead>
<tr>
<th>County</th>
<th>Scenario</th>
<th>Current PCI</th>
<th>PCI 2039</th>
<th>Area(SY)</th>
<th>Budget Required ($ million)</th>
<th>Deferred maintenance ($ million)</th>
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</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>Existing Budget</td>
<td>57</td>
<td>46</td>
<td>27,837,887</td>
<td>$ 779</td>
<td>$ 2,551</td>
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<td>57</td>
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<td></td>
<td>Increase PCI by 5</td>
<td></td>
<td>62</td>
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<tr>
<td>Los Angeles</td>
<td>Existing Budget</td>
<td>66</td>
<td>47</td>
<td>456,608,417</td>
<td>$ 9,881</td>
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<tr>
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<td>66</td>
<td>456,608,417</td>
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<td></td>
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<td>456,608,417</td>
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<td>Orange</td>
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<td>50</td>
<td>150,294,239</td>
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<td>77</td>
<td>150,294,239</td>
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<tr>
<td></td>
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<td>82</td>
<td>150,294,239</td>
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<td>-</td>
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<tr>
<td>Riverside</td>
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<td>52</td>
<td>145,222,220</td>
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<td>Maintain PCI</td>
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<td>70</td>
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<td>$ 3,638</td>
</tr>
<tr>
<td></td>
<td>Increase PCI by 5</td>
<td></td>
<td>75</td>
<td>145,222,220</td>
<td>$ 7,224</td>
<td>$ 1,893</td>
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<tr>
<td>San Bernardino</td>
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<td>71</td>
<td>35</td>
<td>172,206,114</td>
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<td>$ 17,272</td>
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<tr>
<td></td>
<td>Maintain PCI</td>
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<td>71</td>
<td>172,206,115</td>
<td>$ 8,170</td>
<td>$ 3,675</td>
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<td>Increase PCI by 5</td>
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<td>76</td>
<td>172,206,115</td>
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<td>Ventura</td>
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<td>36</td>
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<td>$ 2,682.4</td>
<td>$ 651.6</td>
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</tbody>
</table>
### Local Roads ... recent update

<table>
<thead>
<tr>
<th></th>
<th>Budget Required ($ million)</th>
<th>Deferred maintenance ($ million)</th>
<th>Total needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Budget</td>
<td>$19,838</td>
<td>$80,506</td>
<td>$100,344</td>
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<tr>
<td>Maintain PCI</td>
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<td>$25,362</td>
<td>$69,945</td>
</tr>
<tr>
<td>Increase PCI by 5</td>
<td>$51,451</td>
<td>$14,984</td>
<td>$66,434</td>
</tr>
</tbody>
</table>
Local Roads ... recent update

2039 - Impact of Budget Scenarios on Roads

- Current Condition
- Current Expenditures ($19.8 Billion / 25 Years)
- Maintain PCI at 69 ($44.6 Billion / 25 Years)
- Increase PCI to 74 ($51.5 Billion / 25 Years)

Percentage of Pavement Area

- PCI (0 - 25)
- PCI (25 - 50)
- PCI (50 - 70)
- PCI (70 - 100)
Discussion
Item 9
No Attachment
Item 10 Attachment:
2016 RTP/SCS Active Transportation Progress Update
Active Transportation
Progress towards 2016 RTP/SCS

Alan Thompson
Senior Regional Planner - Active Transportation
Technical Working Group

September 24, 2014
Today’s Topics

- Current Conditions
- Household Travel Survey
- New focus for 2016 RTP
Current Conditions

- All bike trips increase by 72% since 2008
  - 1.4% of all trips
  - 1.2% of commute trips
  - 1.0% of school commute trips
  - 1.95% of shopping trips
  - 2.4% of all exercise trips
- Bikeways increased by 11.5%
- 4 of 6 counties in SCAG region have good-excellent Pavement Condition Index, but three are on edge of being at risk
Current Conditions

- Walk Trips approximately 13.5% of total trips
- 11.5% of all commute trips
- 18.7% of all school commute trips
- 10.4% of all shopping trips
- 14.2% of all exercise trips
But Most Trips are fairly short
BUT...Not enough short trips in region are taken by walking or biking
## Pedestrian and Bicyclist Injuries/Fatalities in the SCAG Region 2003-2012

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Pedestrian</th>
<th>Bicyclist</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Killed</td>
<td>Injured</td>
<td>Killed</td>
</tr>
<tr>
<td>2003</td>
<td>369</td>
<td>7,553</td>
<td>60</td>
</tr>
<tr>
<td>2004</td>
<td>357</td>
<td>7547</td>
<td>58</td>
</tr>
<tr>
<td>2005</td>
<td>373</td>
<td>7265</td>
<td>73</td>
</tr>
<tr>
<td>2006</td>
<td>383</td>
<td>7,261</td>
<td>88</td>
</tr>
<tr>
<td>2007</td>
<td>354</td>
<td>7,289</td>
<td>57</td>
</tr>
<tr>
<td>2008</td>
<td>321</td>
<td>7,178</td>
<td>61</td>
</tr>
<tr>
<td>2009</td>
<td>312</td>
<td>7,224</td>
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</tr>
<tr>
<td>2010</td>
<td>301</td>
<td>6,622</td>
<td>44</td>
</tr>
<tr>
<td>2011</td>
<td>303</td>
<td>6,690</td>
<td>67</td>
</tr>
<tr>
<td>2012</td>
<td>363</td>
<td>7,087</td>
<td>62</td>
</tr>
</tbody>
</table>

Source: SWITRS Table 8. 2003-2012

2008-2012: 13% -1% 2% 38% -14% -3%
Average Number of Collisions by Month (2007-2012)

Bike Collisions
Pedestrian Collisions
All Other Collisions
Lighting Conditions for Pedestrian Involved Collisions

- Daylight: 64%
- Dark_street Lights: 27%
- Dusk or Dawn: 4%
- Dark_no Street Lights: 4%
- Not Stated: 1%
- Dark_Street Lights not functioning: 0%
Bicyclist Involved Collisions
Lighting Conditions

- Daylight, 78%
- Dark_street Lights, 16%
- Dark_no Street Lights, 1%
- Not Stated, 1%
- Dusk or Dawn, 4%
- Dark_Street Lights not functioning, 0%
Pedestrian Locations for collisions

- Crosswalk at Intersection: 44%
- Crossing, Not in Crosswalk: 29%
- In Road or Shoulder: 16%
- Not In Road: 9%
- Approaching/Leaving School: 0%
- Not in Crosswalk: 2%
Bicyclist Type of Collision By Type

- Broadside: 55%
- Other: 18%
- Sideswipe: 9%
- Head-On: 4%
- Vehicle/Pedestrian: 4%
- Rear End: 4%
- Not Stated: 3%
- Hit Object: 2%
- Overturned: 1%
Focus for 2016
Draft Goals

1: Decrease Bicyclist and Pedestrian Fatalities and Injuries
2: Increase active transportation usage in the SCAG region
3: Encourage the development of local active transportation plans
Focus for 2016

- Regional Trips Strategies
- Short Trips Strategies
- Education/Encouragement
Focus for 2016

- Regional Trips Strategies
  - Regional Bikeway Network
  - Greenway Network
  - Grand Boulevards
  - 1st/Last Mile
Focus for 2016

- Short Trips Strategies
  - Local Bikeway Networks
  - Pedestrian/Bike Friendly Districts (Livable Corridors)
  - Bike Share
Focus for 2016

- Education/Encouragement
  - Safety/educational Campaign
  - Safe Routes to School
  - Local Assistance/Planning Support
Schedule

- Finalize Scenario Development (March 2015)
- Modeling (April)
- Scenarios Outcomes (May)
- Outreach to TWG and Working Groups (May – June)
- RTP/SCS Policies and Strategies (June)
- Draft Active Transportation Plan to TC (September)
- Draft RTP/SCS out for Public Review/Comment (October)
Active Transportation & Special Programs

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Alan Thompson,   thompson@scag.ca.gov  213.236.1940

Stephen Patchan,  patchan@scag.ca.gov  213.236.1923

Rye Baerg,          baerg@scag.ca.gov   213.236.1866
Follow Up from a Previous Meeting

- Following are the 30+ purpose codes from the California Household Travel survey, categorized by type.
FYI: Purpose Codes from California Household Travel Survey

School Trips
- In school/classroom/laboratory,

Commuter Trips
- Work/job duties,
- All other work-related activities at my work,
Purpose Code
(Exercise)

- exercise/sports,
- outdoor exercise (playing sports/jogging, bicycling, walking, walking the dog, etc.),
- indoor exercise (gym, yoga, etc.),
- exercise (with or without equipment)/playing sports,
Purpose Code (utilitarian)

- routine shopping
- shopping for major purchases or specialty items
- household errands (bank, dry cleaning, etc.),
- personal business
- eat meal at restaurant/diner,
- health care (doctor, dentist, eye care, hiropractor, veterinarian),
- civic/religious activities,
- entertainment (movies, watch sports, etc),
- social/visit friends/relatives,
Purpose Code (misc)

- other (specify)
- loop trip (for interviewer only-not listed on diary),
- dont know/refused
- work-sponsored social activities (holiday or birthday celebrations, etc),
- non-work related activities (social clubs, etc),
- meals at school/college,
- after school or non-class-related sports/physical activity,
- training,
- meals at work
- volunteer work/activities
Purpose Code (misc)

- all other after school or non-class related activities (library, band rehearsal, clubs, etc),
- change type of transportation/transfer (walk to bus, walk to/from parked car),
- pickup/drop off passenger(s),
- drive through meals (snacks, coffee, etc.)
- drive through other (atm, bank)
- work-related (meeting, sales call, delivery),
- service private vehicle (gas, oil, lube, repairs),
Purpose Codes (at home)

- Personal activities
- Preparing meals/eating,
- hosting visitors/entertaining guests,
- study / schoolwork,
- work for pay at home using telecommunications equipment,
- using computer/telephone/cell or smart phone or other communications device for personal activities,
- all other activities at my home,