



SOUTHERN CALIFORNIA  
**ASSOCIATION of  
GOVERNMENTS**

**Main Office**

818 West Seventh Street  
12th Floor  
Los Angeles, California  
90017-3435  
t (213) 236-1800  
f (213) 236-1825  
  
www.scag.ca.gov

**Officers**

President  
Cheryl Viegas-Walker, El Centro  
  
First Vice President  
Michele Martinez, Santa Ana  
  
Second Vice President  
Margaret Finlay, Duarte  
  
Immediate Past President  
Carl Morehouse, San Buenaventura

**Executive/Administration  
Committee Chair**

Cheryl Viegas-Walker, El Centro

**Policy Committee Chairs**

Community, Economic and  
Human Development  
Bill Jahn, Big Bear

Energy & Environment  
Deborah Robertson, Rialto

Transportation  
Alan Wapner, San Bernardino  
Associated Governments

# MEETING OF THE

# REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE

**Wednesday, March 30, 2016  
10:00 a.m. – 11:00 a.m.**

## **SCAG Los Angeles Main Office**

818 W. 7th Street, 12th Floor,  
Policy Committee Room A  
Los Angeles, California 90017  
(213) 236-1800

**Teleconferencing Available:**

To join the meeting: <http://scag.adobeconnect.com/rttac/>  
Conference Number(s): 1 (800) 832-0736  
MeetingOne Conference Room Number: 7334636

**Videoconferencing Available:**

### **Orange SCAG Office**

600 S. Main St, Ste. 906 Orange, CA 92863

### **Ventura SCAG Office**

950 County Square Dr, Ste 101 Ventura, CA 93003

### **Imperial SCAG Office**

1405 North Imperial Ave., Suite 1, CA 92243

### **Riverside SCAG Office**

3403 10th Street, Suite 805 Riverside, CA 92501

### **SCAG San Bernardino Office**

1170 W. 3rd St, Ste. 140 San Bernardino, CA 92410

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Matt Gleason at (213) 236-1832 or [gleason@scag.ca.gov](mailto:gleason@scag.ca.gov).

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 236-1993. We require at least 72 hours (three days) notice to provide reasonable accommodations. We prefer more notice if possible. We will make every effort to arrange for assistance as soon as possible.

**REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE  
AGENDA  
March 30, 2015**

---

*The Regional Transit Technical Advisory Committee may consider and act upon any of the items listed on the agenda regardless of whether they are listed as information or action items.*      **TIME    PG#**

**1.0    CALL TO ORDER**

*(Wayne Wassell, Metro, Regional Transit TAC Chair)*

**2.0    PUBLIC COMMENT PERIOD** - Members of the public desiring to speak on items on the agenda, or items not on the agenda, but within the purview of the Regional Transit Technical Advisory Committee, must fill out and present a speaker's card to the assistant prior to speaking. Comments will be limited to three minutes. The chair may limit the total time for all comments to twenty (20) minutes.

**3.0    CONSENT CALENDAR**

3.1    Approval Items

3.1.1    Minutes of the December 2, 2015 Regional Transit TAC Meeting      5      1

**REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE  
AGENDA  
March 30, 2015**

<b>4.0</b>	<b><u>RECEIVE AND FILE</u></b>		
4.1	<u>Initial Analysis of FAST Act Impacts on Metropolitan Planning, Passenger Rail, and Transit</u>	-	7
<b>5.0</b>	<b><u>INFORMATION ITEMS</u></b>		
5.1	<u>Partnerships with Transportation Network Companies (Jacob Lieb, Metro)</u>	20	-
5.2	<u>OCTA's 2016 Bus Service Plan (Gary Hewitt, OCTA)</u>	30	14
5.3	<u>Initial Findings from the FY2013-14 Transit System Performance Report (Matt Gleason, SCAG)</u>	30	29
<b>6.0</b>	<b><u>STAFF UPDATE</u></b>		
6.1	<u>2016 RTP/SCS Response To Comments and Proposed Adoption (Philip Law, Manager, Transit/Rail Department, SCAG)</u>	5	62

**ADJOURNMENT**

*The next Regional Transit Technical Advisory Committee meeting is tentatively scheduled for June 29, 2016.*

\* Attachment under separate cover

---

Regional Transit Technical Advisory Committee (RTTAC)  
of the  
Southern California Association of Governments

December 2, 2015

*Minutes*

---

**THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE (RTTAC). AN AUDIO RECORDING OF THE MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.**

The Regional Transit Technical Advisory Committee held its meeting at SCAG's Downtown Los Angeles Office. The meeting was called to order by Wayne Wassell, Chair.

**Members Present:**

Wayne A. Wassell (Chair)	Metro
Lori Abrishami	Metro
Kirk Schneider	Caltrans District 7
Dietter Aragon	Antelope Valley Transit Authority

**Video Conference:**

Claire Johnson-Winegar	Gold Coast Transit
Greg Nord	Orange County Transportation Authority
Gary Hewitt	Orange County Transportation Authority

**Teleconference**

Joshua Palazzo	Riverside Transit Agency
Kristin Warsinski	Riverside Transit Agency

**SCAG Staff:**

Philip Law	Kristen Pawling
Matthew Gleason	Joseph Briglio
Stephen Fox	Maria Lopez

**1.0 CALL TO ORDER**

Wayne Wassell, Chair, called the meeting to order at 10:06 a.m.

**2.0 PUBLIC COMMENT PERIOD**

No member of the public requested to comment.

**3.0 CONSENT CALENDAR**

3.1 Approval Items

3.1.1 Minutes of the July 29, 2015 Regional Transit TAC Meeting

The Consent Calendar was approved by consensus.

#### **4.0 INFORMATION ITEMS**

##### **4.1 Metro Long Range Transportation Plan Update**

Lori Abrishami, Metro, noted Metro has begun work on its LRTP which is scheduled for release in 2017. A draft of the plan is planned for mid-2017 and additional information will be provided as the plan is developed.

##### **4.2 Affordable Housing & Sustainable Communities Grants**

Kristen Pawling, SCAG staff, reported on the Affordable Housing & Sustainable Communities Grants. Ms. Pawling stated AHSC grants are administered by the state and funded through cap-and-trade auction proceeds. It was further noted \$300 million in funding is available statewide for projects that reduce Vehicle Miles Travelled through development projects close to transit. Additionally, AHSC seeks to provide funding for innovative projects. The minimum award is \$1 million and the maximum is \$20 million.

Ms. Pawling noted grant factors include a requirement that at least 50% of funds go to housing and a designated amount must be allocated to communities identified as disadvantaged. Additional factors include a High Quality Transit Corridor requirement of 15 minutes or fewer headways in peak hours. Ms. Pawling stated an additional workshop titled “California Gold” will take place at SCAG December 8, 2015 to examine the application process and to assist those interested in submitting a grant application. Technical assistance will also be available for individual project applicants.

##### **4.3 Federal Transit Administration (FTA) Transit Asset Management Notice of Proposed Rulemaking**

Philip Law, SCAG staff, reported on FTA’s September 15, 2015 Transit Asset Management Notice of Proposed Rulemaking (NPRM). Mr. Law reviewed the proposed rulemaking elements including defining state of good repair as “the condition in which a capital asset is able to operate at a full level of performance.” Additionally, transit providers are designated into two tiers. Tier I providers must develop a Transit Asset Management Plan (TAM) and are defined as providers having 101 or more vehicles in peak revenue service or operating a fixed-guideway service. Tier II transit providers are defined as those with 100 bus vehicles or fewer and which do not operate rail service as well as all subrecipients under the 5311 Rural Area Formula Program. Group TAM plans are to be developed by the State or a direct recipient for Tier II transit providers.

Additionally, TAM plans should be developed in coordination with the State and applicable MPO and must include a project-based prioritization of investments by year. TAM plans must cover at least 4 years and be updated every four years to coincide with the federal TIP and STIP. An initial TAM plan must be developed within two (2) years of the effective date of the rule. Also, as plans are developed

providers need to establish state of good repair performance targets. Mr. Law noted that SCAG raised concern about the process for coordination between providers and the MPO. Also, clarification was requested from FTA on the requirements for a group TAM Plan. Mr. Law noted a comment letter was submitted to FTA requesting clarification on these items.

#### 4.4 FTA Triennial Review

Philip Law, SCAG staff, provided an update on FTA Triennial Review. It was noted FTA's 2016 Triennial Review Workshop Workbook identifies several areas related to SCAG planning and programming processes and/or documentation. Mr. Law noted under Planning/Program of Projects, the grantee must participate in the transportation planning process and each recipient of a Section 5307 grant shall develop, publish, and provide an opportunity for a public hearing as well as submit for approval a Program of Projects (POP). Mr. Law reviewed the process for a grantee's participation in the MPO planning process and it was noted transit providers currently participate in the planning process at SCAG through forums such as Regional Transit TAC meetings.

Regarding a grantee's agreement to carry out transportation planning, Mr. Law discussed several items including the 2007 Memorandum of Understanding between SCAG and the county transportation commissions that addresses this process. Additional items reviewed include a grantee's public participation process and the requirement to budget for Associated Transit Improvements.

#### 4.5 Overview of 2016-2040 RTP/SCS

Philip Law, SCAG staff, reported on the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. Mr. Law stated for over a year various elements of the plan have been discussed and developed with the committee. These include working collaboratively on methodology and identifying High Quality Transit Corridors, transit system performance, premium transit services, Bus Rapid Transit, first-mile last-mile, active transportation, technology and innovation, transit asset management, the Sustainable Communities Strategy as well as transportation finance.

Mr. Law noted on December 3, 2015, staff will recommend to the Regional Council to approve releasing a draft of the 2016-2040 RTP/SCS and Program Environmental Impact Report for a 60-day public review and comment period from December 4, 2015 to February 1, 2016. A report highlighting key elements of the plan was provided.

#### 4.6 2016-2040 RTP/SCS Environmental Justice Element

Ma'Ayn Johnson, SCAG staff, reported on the 2016-2040 RTP/SCS Environmental Justice Element. Ms. Johnson stated the purpose of the environmental justice analysis is to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process and

to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects on minority and low-income populations including social and economic effects. Additionally, SCAG’s EJ policy indicates that when disproportionately high and adverse impacts on minority or low-income populations are identified, SCAG takes steps to consider alternative approaches or propose mitigation measures for the region. If disproportionate impacts are found, SCAG will analyze the impacts and identify potential solutions to incorporate into the long-range transportation plan. Ms. Johnson reviewed the EJ outreach efforts and workshops completed in preparation for the 2016-2040 RTP/SCS.

Frank Wen, Manager, Research and Analysis, continued the presentation noting environmental analysis is conducted on a regional basis and begins with identifying Transportation Analysis Zones (TAZs) that have a higher concentration of minority or low income households than the region as a whole. Also considered are SB 535’s Disadvantaged Areas census tracts as well as Census Designated Places (CDPs) and City of Los Angeles Community Planning Areas (CPAs).

Mr. Wen presented environmental justice regional maps noting identified TAZs include 68% of the region or 12.4 million people. Next, maps of the SB 535 eligible census tracts and communities of concern were presented. Mr. Wen next provided a complete list of communities of concern in addition to urban and rural area maps. Mr. Wen next reviewed performance indicators and noted new areas for the 2016 RTP/SCS include active transportation hazards, public health impacts and climate vulnerability. Mr. Wen reviewed performance indicators and explained “benefits and burdens” examines who will pay for the RTP/SCS and who will benefit from the plan. Travel and time savings examines the potential savings in travel time resulting from the 2016 RTP/SCS based on each group’s usage of the transportation system. Additional performance measures reviewed include job housing balance, the impacts of a mileage-based user fee, accessibility to employment, parks and schools, impacts from aviation, rail, and roadway noise as well as active transportation hazards.

### **STAFF UPDATE**

Philip Law, SCAG staff, noted the next meeting is tentatively scheduled for March 30, 2016.

### **ADJOURNMENT**

The meeting adjourned at 11:18 a.m.

# REPORT

**DATE:** March 30, 2016

**TO:** Regional Transit Technical Advisory Committee (RTTAC)

**FROM:** Matt Gleason, Senior Regional Planner, 213-236-1832, [gleason@scag.ca.gov](mailto:gleason@scag.ca.gov)  
 Steve Fox, Senior Regional Planner, 213-236-1855, [fox@scag.ca.gov](mailto:fox@scag.ca.gov)

**SUBJECT:** Initial Analysis of FAST ACT Impacts on Metropolitan Planning

**EXECUTIVE SUMMARY:**

*On December 4, 2015, President Obama signed Fixing America's Surface Transportation (FAST) Act into law. The FAST ACT authorizes the expenditure of \$305 Billion dollars over five years, including use of the highway trust fund, contract authority, and the use of general fund revenues.*

*Staff have provided an initial, high level analysis of the impacts of the FAST ACT on Metropolitan Planning for Transit and Rail, as well as Intelligent Transportation Systems and the Congestion Management Process.*

**BACKGROUND:**

Congress establishes the funding for Federal Transit Administration (FTA) and other transit programs through authorizing legislation amending Chapter 53 of Title 49 of the U.S. Code. On December 4, 2015, President Obama signed Fixing America's Surface Transportation (FAST) Act into law. The FAST ACT authorizes the expenditure of \$305 Billion dollars over five years, including use of the highway trust fund, contract authority, and the use of general fund revenues. This authorization succeeds the Moving Ahead for Progress in the 21<sup>st</sup> Century act (MAP-21) of 2012.

**Funding Levels**

The Fast Act Provides an immediate 5% increase to highways in 2016 (\$2.1 billion over 2015) and an 8% increase to transit in 2016 (\$753 million over 2015). Highway spending would grow by 2.1% to 2.4% per year after 2016, while mass transit spending would grow at about 2.1% per year.

	2015	2016	2017	2018	2019	2020
PL Funds	\$313,600,000	\$329,300,000	\$336,900,000	\$343,000,000	\$350,400,000	\$358,500,000
Transportation Infrastructure Finance and Innovation Act (TIFIA)	\$1,000,000,000	\$275,000,000	\$275,000,000	\$285,000,000	\$300,000,000	\$300,000,000
Transit Formula Grants	\$8,585,000,000	\$9,347,604,639	\$9,534,706,043	\$9,733,353,407	\$9,939,380,030	\$10,150,348,462
Capital Investment Grants (New Starts – Authorizations from the General Fund)	\$1,907,000,000	\$2,301,785,760	\$2,301,785,760	\$2,301,785,760	\$2,301,785,760	\$2,301,785,760
Public Transportation Planning Funds		\$130,732,000	\$133,398,933	\$136,200,310	\$139,087,757	\$142,036,417

## **METROPOLITAN TRANSPORTATION PLANNING**

### **Intercity Bus and Vanpools**

FTIP and RTPs also must now provide for the development and integrated management of “intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities, and commuter vanpool providers.” MPOs are required to coordinate with providers of these services, and identify them in the planning and programming processes.

### **Planning Factors**

Two new planning factors -- system resiliency and reliability, and reduce or mitigate storm-water impacts on surface transportation are added to the planning factors to be considered in the Metropolitan Planning Process.

### **Transit Agency Representation**

Representatives or officials of an MPO shall be determined by MPO bylaws or enabling statutes; representative of public transportation may also serve as a representative of a local municipality; authority of the transit representative shall be commensurate with other officials.

### **Disaster Response**

The plan should include strategies to reduce vulnerability due to natural disasters. MPOs are also required to consult with state tourism and disaster response agencies. Also, see new planning factors above.

### **Congestion Management**

The FAST Act adds new optional Congestion Management Plan. MPOs in a TMA may develop a plan that includes projects and strategies that develop regional goals to reduce vehicle miles traveled during peak commute hours and improve transportation connections between areas with high job concentration and areas with high concentrations of low-income households. Additionally, Congestion Mitigation and Air Quality (CMAQ) performance plans for MPOs over 1 million in population must include a description of progress made in achieving the “air quality and traffic congestion” performance targets described in law.

## **PUBLIC TRANSPORTATION**

### **Urbanized Area Formula Grants**

Provides an exception to the special rule permitting operating assistance in areas over 200,000 in population to allow two or more systems to allocate funds for operations, under a written agreement; this allocation of funds does not have to be based on vehicle revenue hours. Facilities and equipment must be maintained in accordance with the asset management plan.

## **Fixed Guideway Capital Investment Grants**

Ends requirements that corridor based BRT operate short headway bidirectional service for a substantial part of weekend days, and that applicants develop information enabling the Secretary to make a finding of policies and land use patterns that promote public transportation

Amends the following:

- Definition of program of interrelated projects to include small starts projects
- Definition of small starts to increase the federal assistance up to \$100 million and increase the total net capital costs to \$300 million.
- Definition of programs of interrelated projects to include new fixed guideway capital project or core capacity improvement during the engineering phase
- Project advancement distinguishes between small starts and new fixed guideway capital projects or core capacity improvement projects
- The federal share of a full funding grant agreement for a new fixed guideway capital project to amended to 60%, and defines where the remaining costs may come from
- Decreases the number of years funds may be available from 5 to 4 years
- Provides grants for joint public transportation and intercity passenger rail projects
- Adds a new expedited project delivery for capital investment grants pilot program with a 25% limitation on federal share

## **Enhanced Mobility of Seniors and Individuals with Disabilities**

The FAST Act adds a States or local government entities that operate public transportation services to the definition of recipients. The Act also lays out a new best practices section to share amongst public transportation agencies. and a pilot program for innovative coordinated access and mobility to assist in financing innovative projects for the transportation disadvantaged is added.

Additionally, the FAST Act authorizes FTA to distribute funding for a new pilot program for innovative coordinated access and mobility, intended to further the provision of non-emergency medical transportation.

## **Rural Area Formula Grants**

The FAST Act sets apportionments for Indian reservations including \$5 million competitive, and \$30 million by formula. Includes new methods to pay for the remainder of net project costs, and provides a determination of the allocation of grants to multiple providers on tribal land.

## **Public Transportation Innovation**

The FAST Act mandates that The Secretary shall provide assistance for projects and activities to advance innovative public transportation R&D and is directed to select at least one facility to engage in research associated with low or no emission vehicles.

## **Buy America**

The Buy America waiver provision can include rolling stock prototypes under types of rolling stock procured, and the percentage of costs of components and subcomponents produced in America

compared to costs of all components and subcomponents when procuring rolling stock to receive a Buy America waiver is increased. If the Secretary denies a Buy America waiver, the Secretary must issue written certification that the steel, iron, or manufactured goods are produced in America in a sufficient and reasonably available amount.

### **State of Good Repair Grants**

Stipulates a grant for a capital project under this section is for 80 percent of the net project cost of the project.

### **Grants for Buses and Bus Facilities**

The FAST ACT rewrites section 5339, adding a definition section. The amount of funds for the national distribution of grant funds increased to \$90.5 million (each State will receive \$1.750 million). A pilot program for cost-effective capital investment will allow recipients in a specific State to pool their formula funds to allow for the accommodation of larger scale procurements.

### **PASSENGER RAIL**

The FAST Act has a dedicated rail title for the first time in a transportation bill and funding is \$10.4 billion over the five years although there is no year-over-year increase, and funding is not guaranteed as this investment must be authorized annually by Congress via the appropriations process. The act provides \$1.45 billion for Amtrak in 2016, and rises to \$1.8 billion by 2020. It also includes \$199 million for PTC implementation.

The Act changes Amtrak's business operations and planning model from a nation-wide approach to a new structure that splits the NEC from the rest of the national network. For the \$8.05 billion authorized through the life of the grant, \$2.6 billion is authorized for the Northeast Corridor and \$5.5 billion for the rest of the system. Since the NEC makes an operating profit, the revenues may be reinvested in to NEC capital projects.

In addition to the dedicated Amtrak funding, \$2.2 billion is authorized over the five years through three grant programs. The Consolidated Rail Infrastructure and Safety Improvements program authorizes \$1.1 billion for grants to assist in financing the costs of improving passenger and freight rail transportation systems in terms of safety, efficiency, or reliability. The Federal-State Partnership for State of Good Repair program authorizes \$997 million for capital projects to replace or rehabilitate railroad assets to reduce the current SOGR backlog. Finally the Restoration and Enhancement program authorizes \$20 million yearly for operating assistance to initiate, restore, or enhance intercity passenger rail service.

# REPORT

The Act also affects Buy America requirements and the RRIF loan. In the first case, the Buy America content requirement for rolling stock increases from the current 60 percent to 65 percent in 2018 and 70 percent by 2020. The RRIF loan requirements have been eased with the aim of making progress in loaning out this pool of money. New provisions would mirror the successful TIFIA program by making RRIF a more flexible lender and making it easier to develop partnerships that combine RRIF loans with other types of financing, including private financing. It also requires the Secretary to pay back the credit risk premium, with interest, to a borrower that has repaid its RRIF loan. Very tight timelines for review or rejection communication are also mandated. The Act calls for Comptroller General to issue a report within 180 days after the date of its enactment that analyzes how the RRIF Program can be used to improve passenger rail infrastructure, including examples of projects that could be financed under the program, and potential repayment sources such as tax-increment financing, user fees, tolls, and other dedicated revenue sources.

The Act affects many aspects of passenger rail, including policy, operations, safety and financing. Highlights include:

- Requires Amtrak to submit profit and loss statements for both the NEC and national networks. This will help ensure that adequate investment is being provided for capital infrastructure on the NEC and aims to end the NEC cross-subsidy of long distance and state-supported routes. This includes amended and reformed accounting procedures to keep the new business plans separate.
- Requires infrastructure owners such as Amtrak and the states to annually produce five-year asset management plans and business line plans based on current authorization levels. The four business line plans include the NEC, state-supported routes, long-distance routes, and ancillary services. SOGR is an important component of the asset management plans.
- Requires the establishment of a “State-Supported Route Committee,” whose goal is to produce mutual coordination and planning between Amtrak and the states not later than 180 days after enactment of the Act. Membership includes Amtrak, state DOTs, and the FRA. Non-voting members may be invited as deemed appropriate.
- Increases the size of the Amtrak Board of Directors from nine to ten members.
- Requires Amtrak within 180 days to contract with a consultant to do a COA of its existing system with recommendations of what routes to enhance, discontinue, create, or contract out.
- Requires that Amtrak develop a plan to eliminate food and beverage losses within five years.
- Requires Amtrak to submit a report on how to improve its station areas, including economic development, improving passenger amenities and multi-modal connectivity, and increasing boardings and revenue streams, etc.
- Requires Amtrak to submit a report on improving boarding procedures for Active Transportation at its 15 busiest stations.
- Directs the DOT to apply to rail the expedited environmental review procedures already used for highways and transit.
- Allows competitors to operate up to three Amtrak long-distance lines, if at less cost than the current subsidized service. The initial operating period would be four years with an option to extend for another four years.

- Requires the DOT to issue a RFP for projects to finance, construct, and operate a HSR service among various corridors including the California Corridor. The speeds must be at least a 25% improvement between the two termini.
- Requires the DOT, in consultation with rail operators and the new State-Supported Route Committee, to conduct a shared-use study within three years that evaluates the operational characteristics and issues of joint freight/passenger use, and evaluates operational, institutional and legal structures that would best support operational improvements to these corridors.
- Increases Amtrak’s liability to accident victims from \$200 million to \$295 million (and retroactively applies the changes to victims of the deadly Philadelphia derailment).

## CONGESTION MANAGEMENT PROCESS

The FAST Act amends 23 CFR Section 134 regarding Congestion Management Plan under Subtitle B—Planning and Performance Management, Section 1201, Metropolitan Transportation Planning: 23 CFR Section 134(B) by adding at the end the following:

“(C) CONGESTION MANAGEMENT PLAN.—A metropolitan planning organization serving a transportation management area may develop a plan that includes projects and strategies that will be considered in the TIP of such metropolitan planning organization. Such plan shall—

“(i) develop regional goals to reduce vehicle miles traveled during peak commuting hours and improve transportation connections between areas with high job concentration and areas with high concentrations of low-income households;

“(ii) identify existing public transportation services, employer-based commuter programs, and other existing transportation services that support access to jobs in the region; and

“(iii) identify proposed projects and programs to reduce congestion and increase job access opportunities.”

This same language is also under Section 3003, Metropolitan and Statewide Planning.

## ITS

There is significant legislation under ITS, under Title VI—Innovation, called the “Transportation for Tomorrow Act of 2015.” Notable are three funding programs totaling \$227.5 million. The first is \$100 million per year for ITS research, which includes funding for the national freight system. It is also meant to fund development of cybersecurity standards for future connected and automated transportation vehicles.

The second is the creation of a new \$60 million per year Advanced Transportation and Congestion Management Technologies Deployment Program to provide competitive grants to develop model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure return on investment. Grants are meant to fund advanced traveler information systems, advanced transportation management technologies, infrastructure maintenance, advanced public transportation systems, system performance data collection and analysis and autonomous vehicles.

# REPORT

---

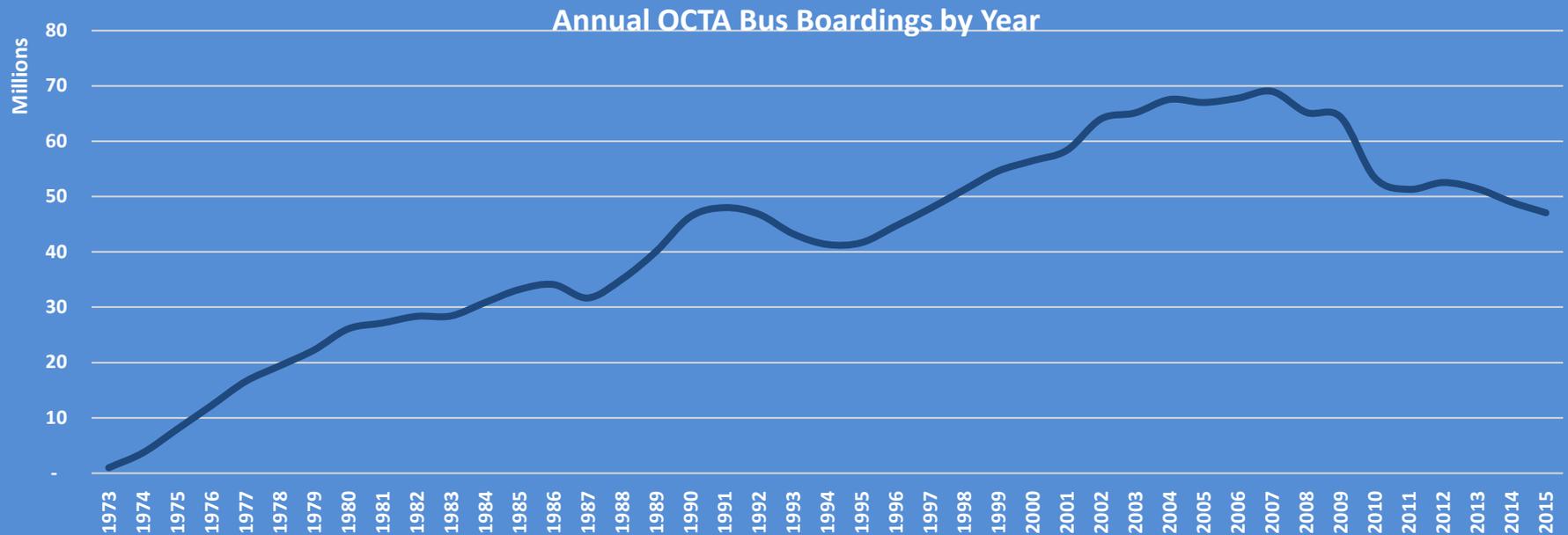
The third is \$67.5 million per year for a Technology and Innovation Deployment Program designed to accelerate the deployment of new technology and innovations and analyze Federal, State, and local cost savings, project delivery time improvements, reduced fatalities, and congestion impacts.



# 2016 Bus Service Plan

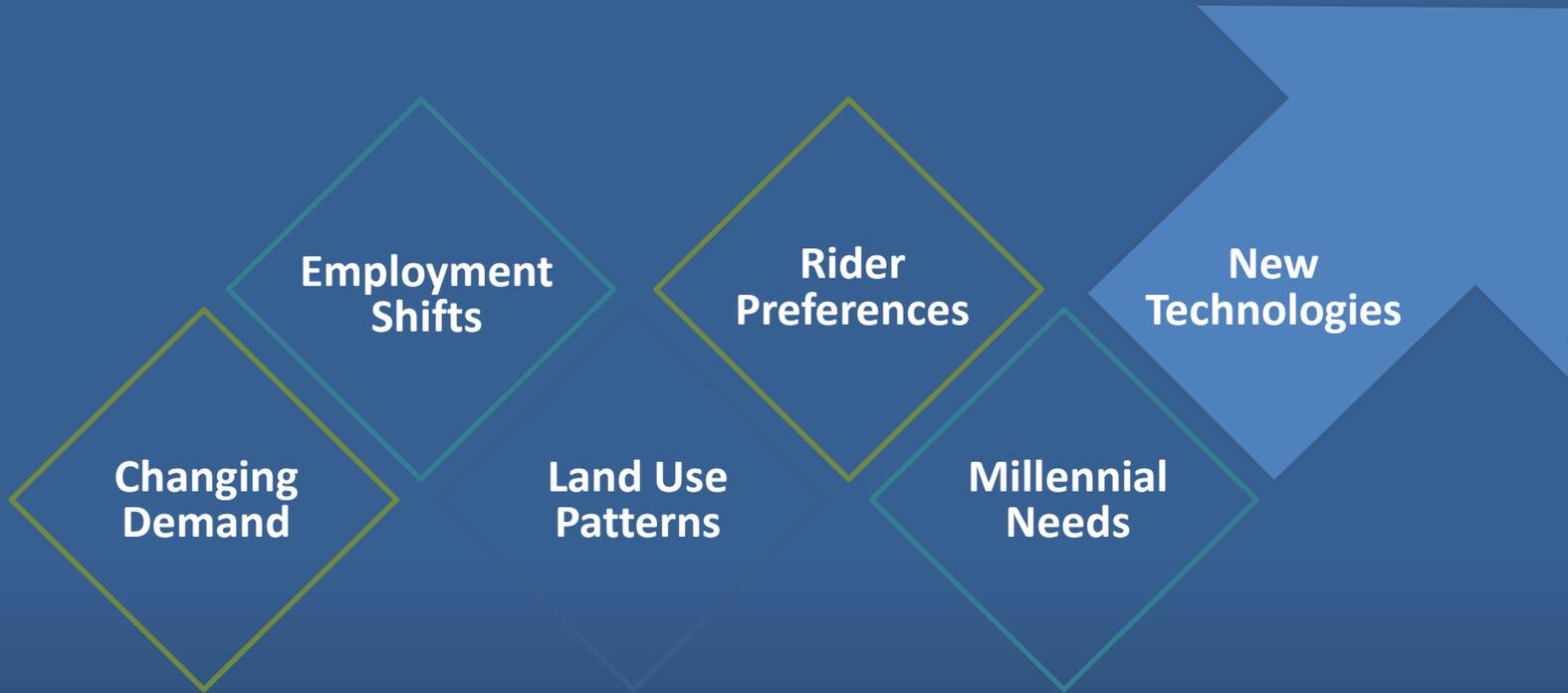


# Reverse Ridership Trends



Ridership goal: Increase boardings by 1.6 million over three years

# Background





- Meet customer needs
  - Improve travel time by transit
- Reverse ridership declines
  - Offer faster, more convenient service
- Retain and build ridership
  - Re-position bus service to match markets
- Improve productivity
  - Use existing resources more efficiently
- Work within existing funding



New vehicles and  
bus branding

Project V  
community  
circulators

Real-time  
customer  
info

New Bravo!  
And Xpress routes

Fare study

Mobile  
ticketing

Peer  
review

More  
frequent  
service

Targeted  
promotions



*Innovating from every angle*

# Public Involvement



- 60,000 brochures in multiple languages
- Local jurisdiction communities
- Four community meetings
- Digital and e-communications
- Press releases/advertisements
- ACCESS information
- Citizen committees
- Public hearing

Channel	Comments Received
Mails	272
Phone Calls/Emails	302
Online Surveys	604
Community Meetings	94
Public Hearing	65
Total	1,337



## Recurring Themes

- Support for frequency improvements
- Provide some level of coverage
  - Offer peak only or less frequent service
- Sync reductions with Project V start-ups
- Concerns for special needs customers

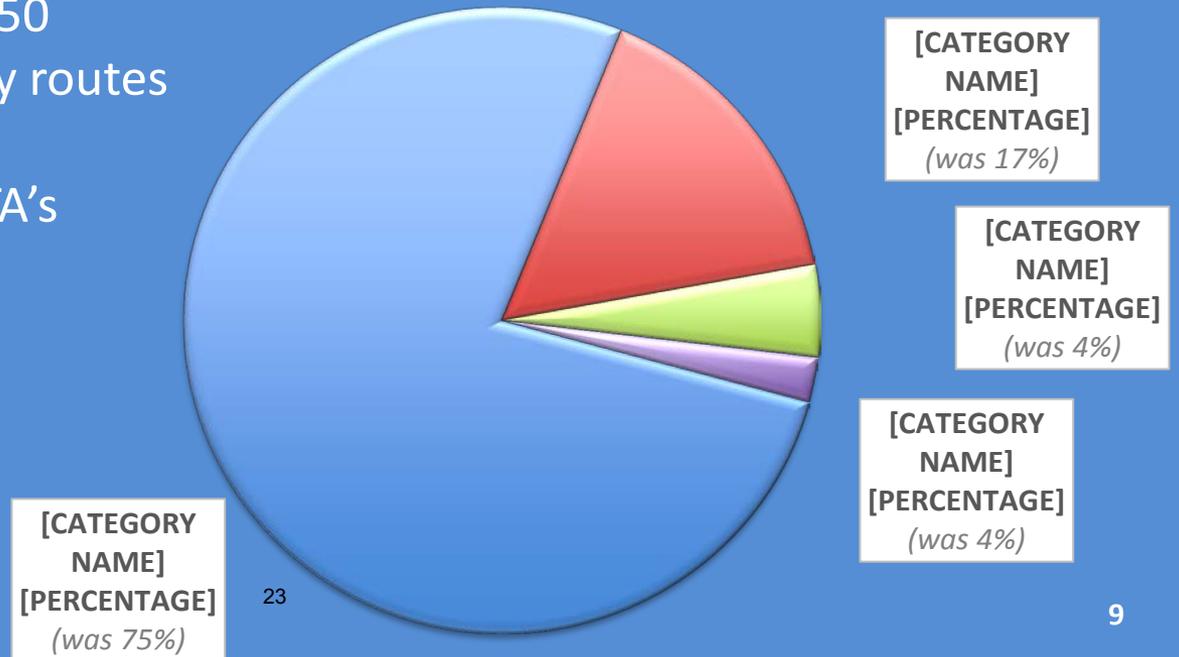


# Final Plan

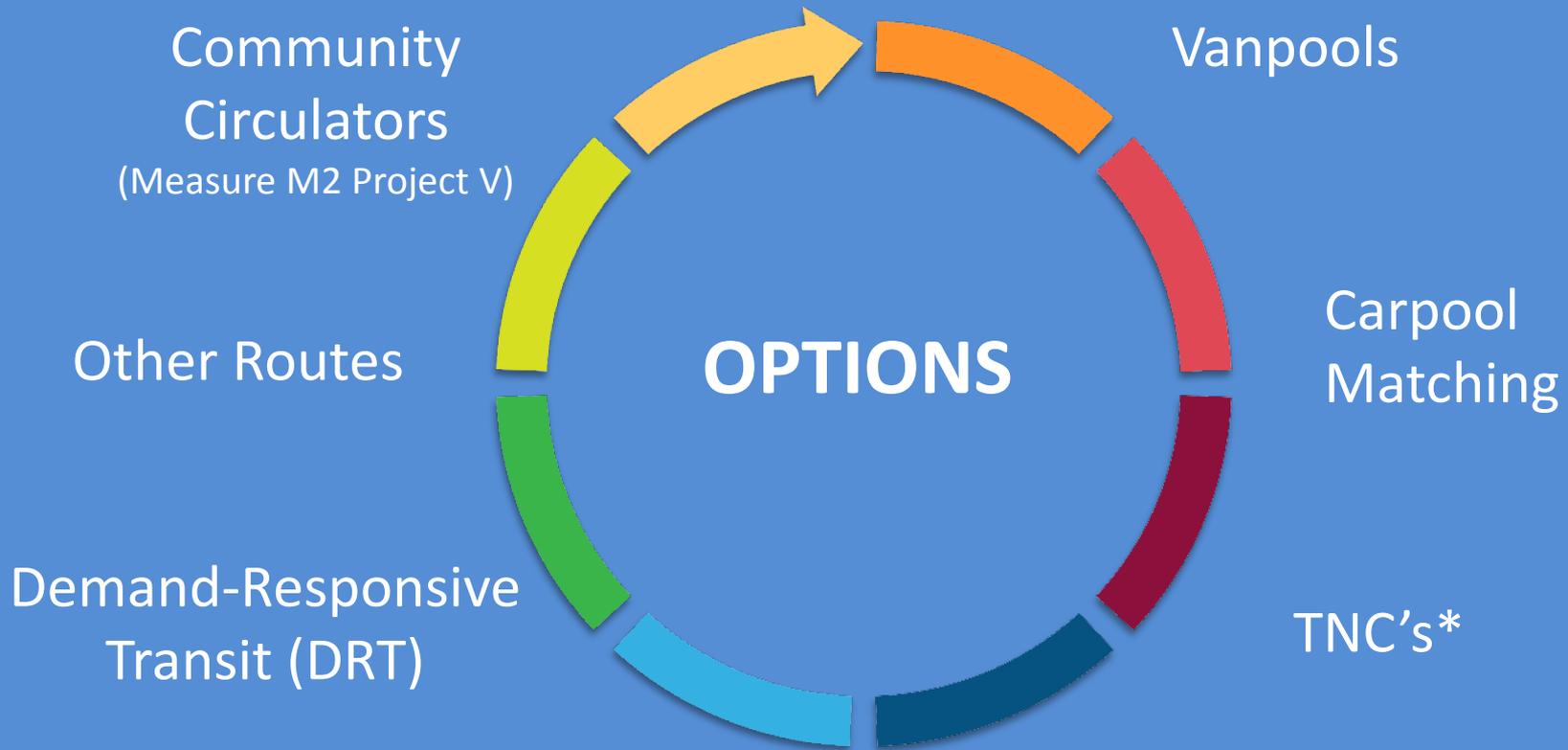


Based on public input and technical analysis, Plan was revised and approved by the Board on February 22, 2016. The revised plan:

- modifies 14 of the 35 routes originally proposed for changes
- cuts in half the number of riders who would lose service – from 4 % to 2%
- introduces a new Route 150
- add 4 peak high frequency routes
- add 2 new Bravo! Routes
- addresses impacts to OCTA's ACCESS customers.



# Options for Riders



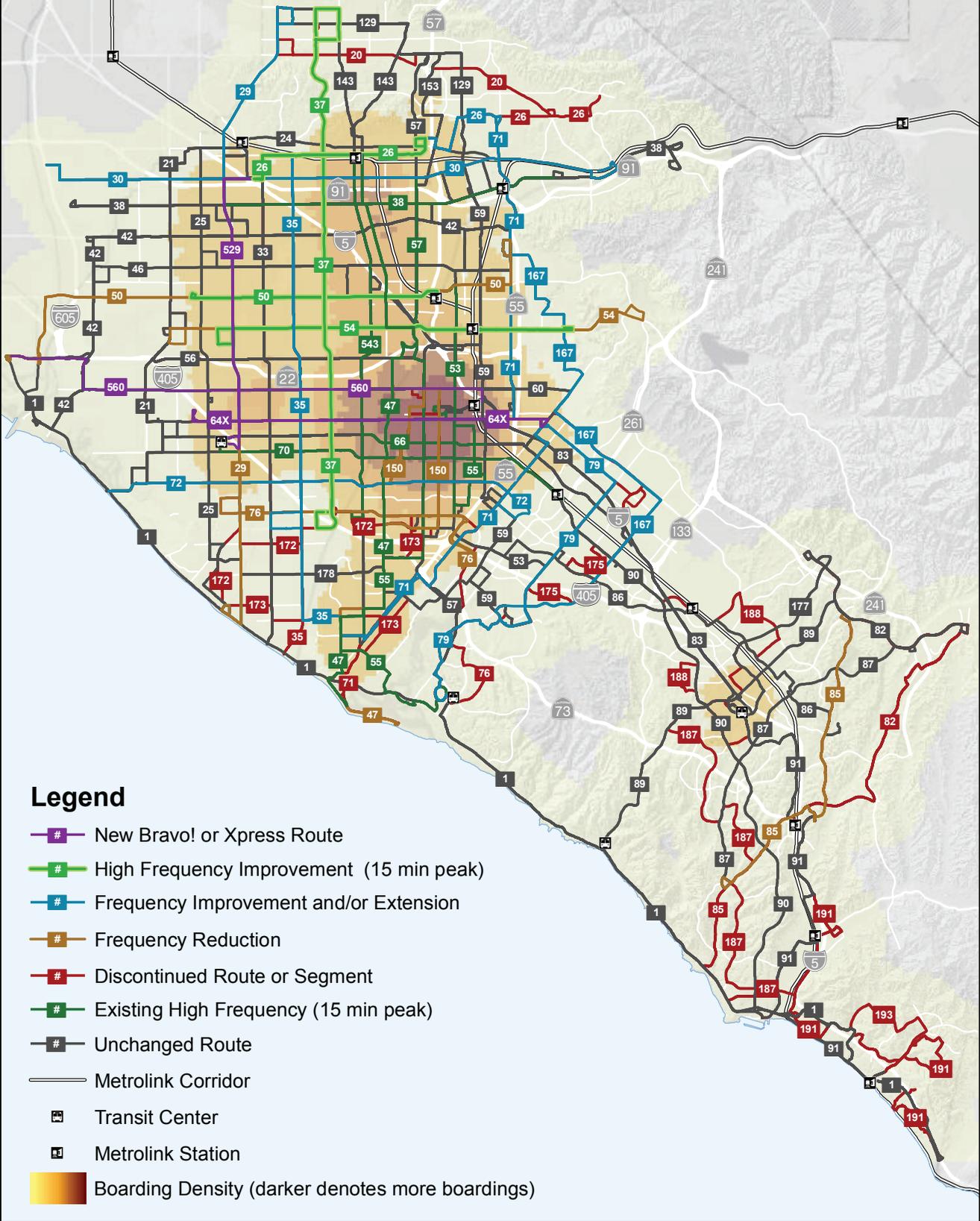
\* TNC's = Transportation Network Companies

# Next Steps



	Milestone	Timeline
✓	Release Draft Plan for Public Input	November 23, 2015
✓	Implement Outreach	December 2015 – Jan 2016
✓	Conduct Public Hearing	January 25, 2016
✓	Board Approval	February 22, 2016
	Award Project V Funds	March - June 2016
	Implement Changes	June and October 2016

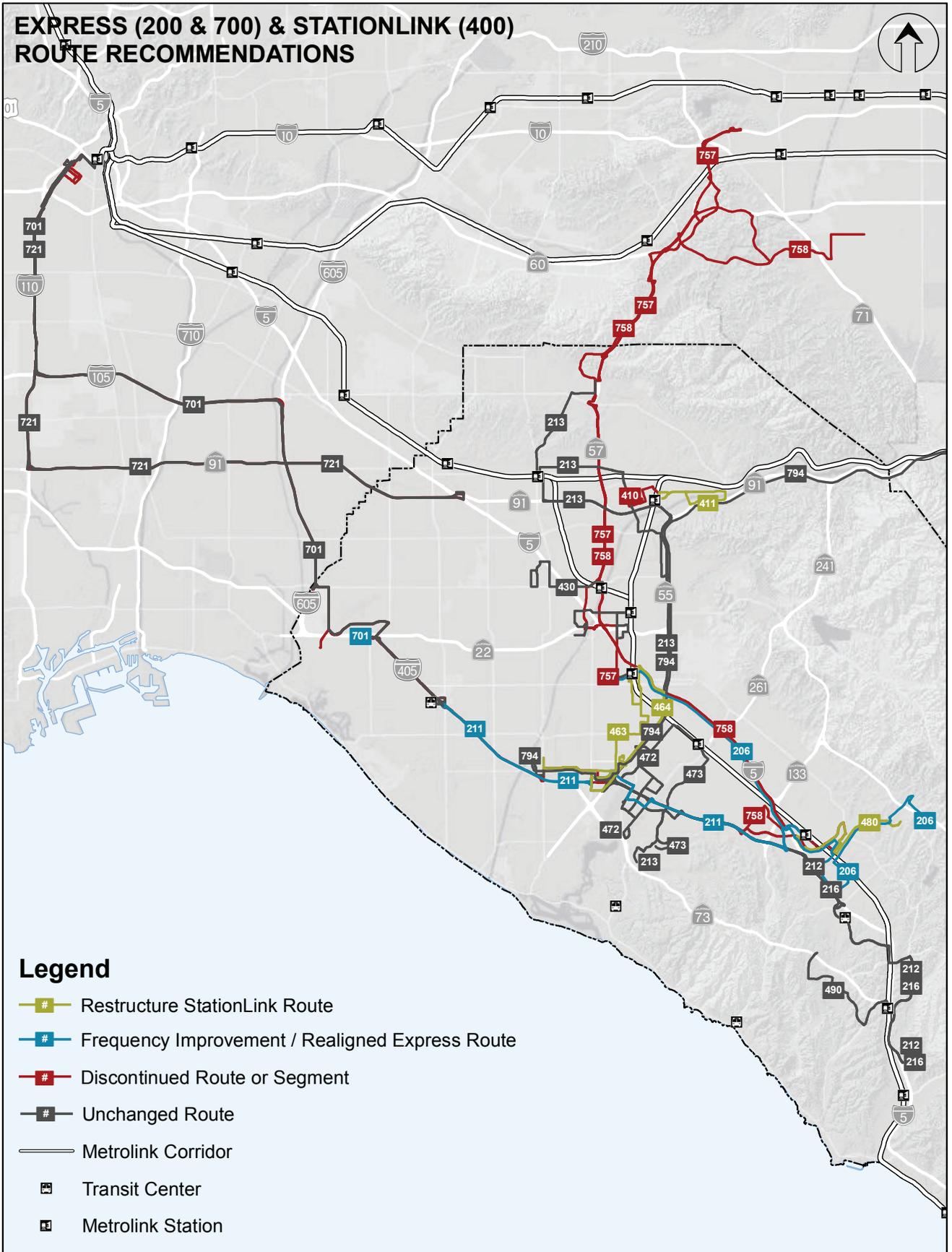
# LOCAL (1-99), COMMUNITY (100), & BRAVO! (500) FINAL ROUTE RECOMMENDATIONS



## Legend

- # New Bravo! or Xpress Route
- # High Frequency Improvement (15 min peak)
- # Frequency Improvement and/or Extension
- # Frequency Reduction
- # Discontinued Route or Segment
- # Existing High Frequency (15 min peak)
- # Unchanged Route
- Metrolink Corridor
- Transit Center
- Metrolink Station
- Boarding Density (darker denotes more boardings)

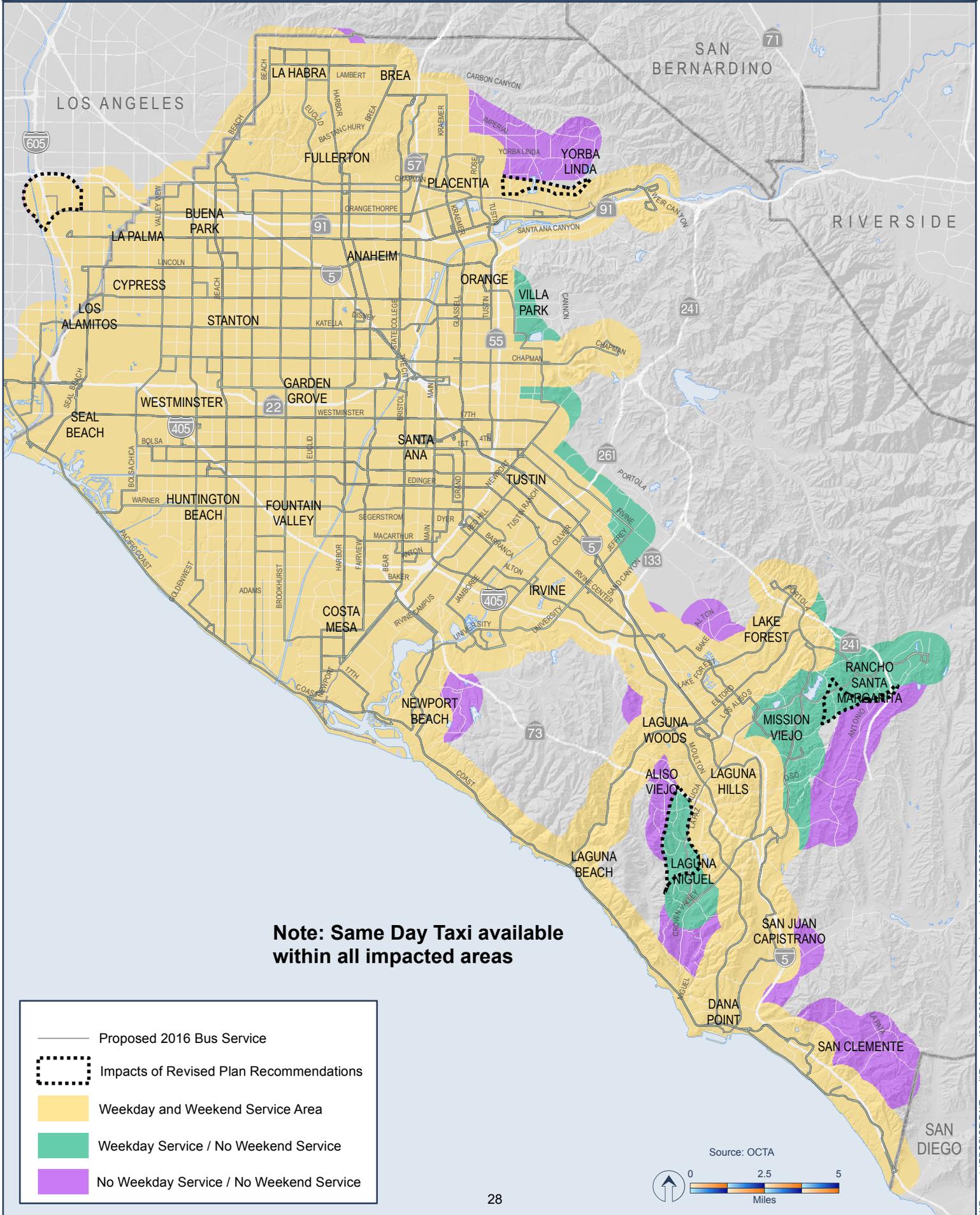
# EXPRESS (200 & 700) & STATIONLINK (400) ROUTE RECOMMENDATIONS



## Legend

- #— Restructure StationLink Route
- #— Frequency Improvement / Realigned Express Route
- #— Discontinued Route or Segment
- #— Unchanged Route
- Metrolink Corridor
- Transit Center
- Metrolink Station

# ACCESS Changes of Final 2016 Bus Service Plan



# FY2013-14 System Performance Report: Initial Findings

Regional Transit Technical Advisory Committee  
March 30, 2016

Matt Gleason

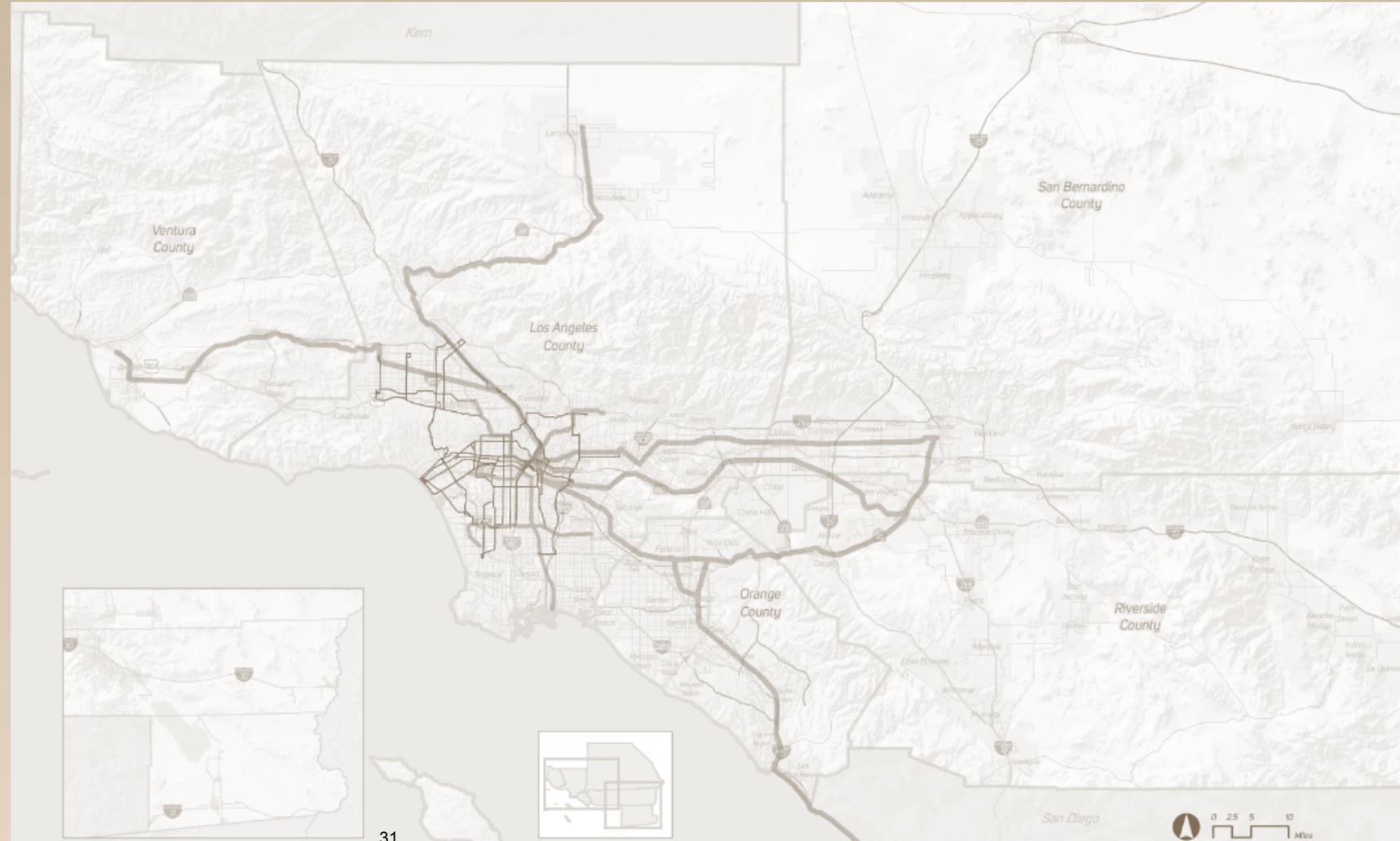


# Background

- SCAG has Employed Performance Measures since 1998
  - Typically, existing system performance is measured every 4 years in the RTP
  - MAP-21 includes provisions that may move towards more frequent performance measurement, especially regarding the FTIP
  - FTA and FHWA are advising MPOs to incorporate more operational considerations in planning processes and documents

# Background

- SCAG Region is very complex environment
  - Nearly 70 providers of some sort of fixed route service
  - Almost 100 transit providers
  - Variety of modes



# Transit Governance

- Regional Governance Continues to evolve
  - VVTA – Barstow Merger
  - Heritage Valley
  - OC Municipals -- growth & change
    - La Habra
    - ATN



# Recent Transit Performance Measurement Efforts

## Key Performance Indicator Exercise

- Winter 2011-Fed into 2012 RTP / SCS performance measurement

## Peer Regions Performance Benchmarking Exercise

- Spring and Summer 2011-Fed into 2012 RTP / SCS performance measurement

## FY2010-11 System Performance Report

- Winter/Spring 2013
- Focus on productivity, costs, efficiency

## FY2012-13 System Performance Report

- Summer/Fall 2014
- Key Findings – Per Capita Trip Stagnation, ADA Trip Length

## 2016 RTP/SCS

- Included Findings from 2012-13 SPR
- Also included Peer Regions Benchmarking Update

# FY2011-12 System Performance Report and 2016 RTP/SCS Key Findings

- Per Capita Trip Consumption grew in the mid-2000s, but has returned to roughly 1991 levels
- Average trip lengths have been growing, particularly for demand response
- Anaheim Resort Transit is growing rapidly
- Metro has cut over 800,000 annual hours since 2008
- The region's overall performance is competitive, particularly compared with other regions that primarily employ bus and light rail

# Goals of the FY13-14 Transit System Performance Report

## Framework for understanding the region's transit investments

- Mobility
- Governance
- Service Provision and Consumption

## Resource for Policy Makers

- Investments and Returns
- Planning for Operations

## Benchmarking Resource for Operators

## MAP-21

- Address performance planning provisions
- Initial step toward transit system performance report for 2016 RTP/SCS

# Format of the FY13-14 Transit System Performance Report

## Section 1: Public Transportation in the SCAG Region

- Governance
- Transit's role in providing mobility and other external benefits
- Transit sub-modes

## Section 2: Evaluating Transit System Performance

- Legislative context
- Literature review

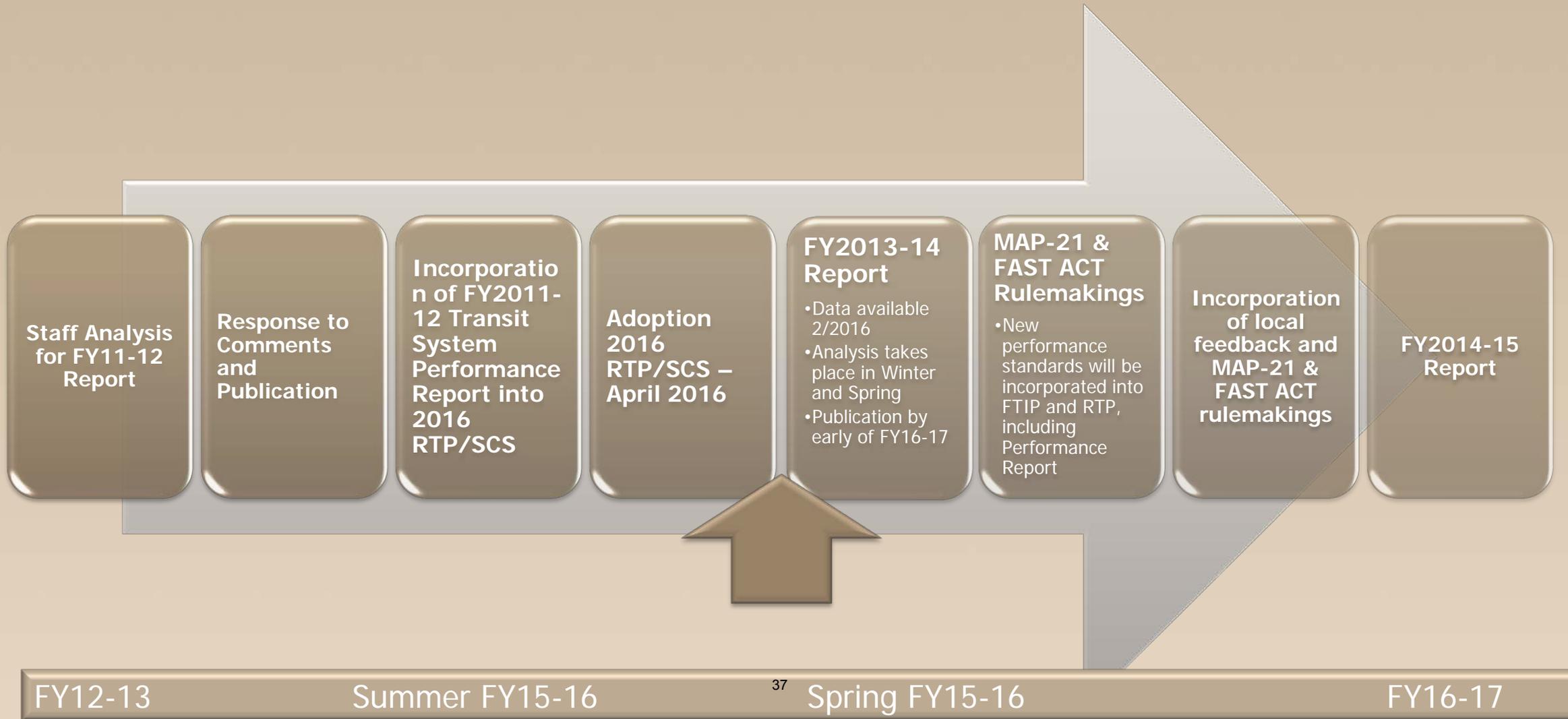
## Section 3: Regional Performance

- Assesses regional performance
- Lays out financial performance and productivity

## Section 4: Market Sector Performance

- Focus on performance by market sector. Mostly looking at current year performance, with some analysis of trends to highlight change.
- More discussion on slides 28-31

# Transit System Performance Report Process



# National Transit Database

## Operators included in analysis

These operators are included in the system performance report

- Provide higher levels of service
- Frequently cross jurisdictional boundaries
- Receive FTA 5307 Funds
- Mix of modes
  - Fixed Route
  - Demand Response
  - Rail

County	Agency		
Los Angeles	Access Services Inc., of Los Angeles	LADOT	Montebello Bus Lines
	Antelope Valley Transportation Authority	Foothill Transit Agency	Norwalk Transit System
	Arcadia Transit	Gardena Municipal Bus Lines	Santa Clarita Transit
	Commerce Transportation	LACMTA (Metro)	Santa Monica's Big Blue Bus
	Culver City Bus	Long Beach Transit	Torrance Transit
Orange	Laguna Beach Municipal Transit	OCTA	
Riverside	Corona Cruiser and Dial-a-Ride	Riverside Transit Agency	SunLine Transit Agency
San Bernardino	Omnitrans	Victor Valley Transit Authority (VVTA)	
Ventura	Gold Coast Transit	Thousand Oaks Transit	Ventura Intercity Transit Authority (VISTA)

# Measures

- Staff has previously recommend the following measures be used in the report
- Mix of cost efficiency/ effectiveness, productivity, and speed/mobility
- Staff are seeking to include Maintenance measures, but some PT operators report in different manners

Performance Concept	Performance Measure
Cost Efficiency	Operating Cost/Revenue Hour
	Farebox Recovery
Cost Effectiveness	Operating Cost/Passenger Trip
	Operating Cost/Passenger Mile
Service Effectiveness/ Productivity	Passengers/Revenue Hour
	Passengers/Revenue Mile
Maintenance	Fleet Average Vehicle Age
Mobility/Travel Time	Average Vehicle Speed

# Data Issues

- There have been issues with NTD's reporting software
- Corrections to these findings are likely
- Small Systems waiver operators are missing some data



# Example of System Performance Analysis

**Findings**

# Transit in the SCAG Region, FY13-14: Service Provision and Consumption



## Service Provided

- Total Revenue Service Hours: 20,161,206
- Total Directional Route Miles: 18,946
- Total Vehicle Revenue Miles: 270,494,719



## Service Consumed - Trips

- Total Passenger Trips: 723,083,160
- Per Capita Transit Trips: 38.97



## Service Consumed - Miles

- Total Passenger Miles: 3,794,122,850
- Per Capita Passenger Miles: 197

# Findings:

## FY2011-12 vs. FY2013-14

- Service Hours highest ever
- VRM down about 8.5%
- Trips up almost 2%
- Per Cap UPT up 0.04%
- PMT down -3.5%
- Per Cap PMT down -4.37%
  
- Counterintuitive trends will be examined in more depth in the report

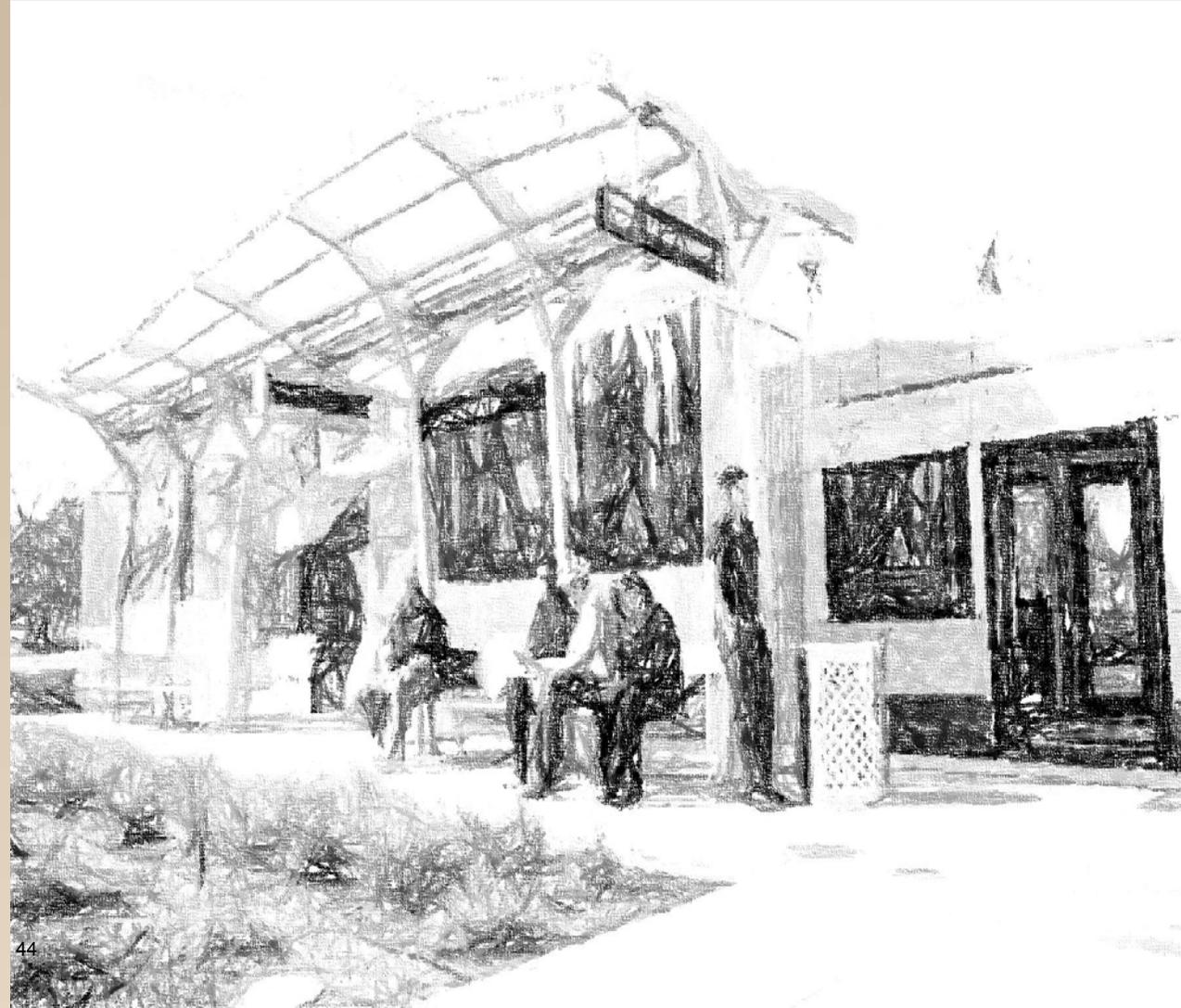


# SCAG Region Fiscal Year 2013-2014 Financial Performance

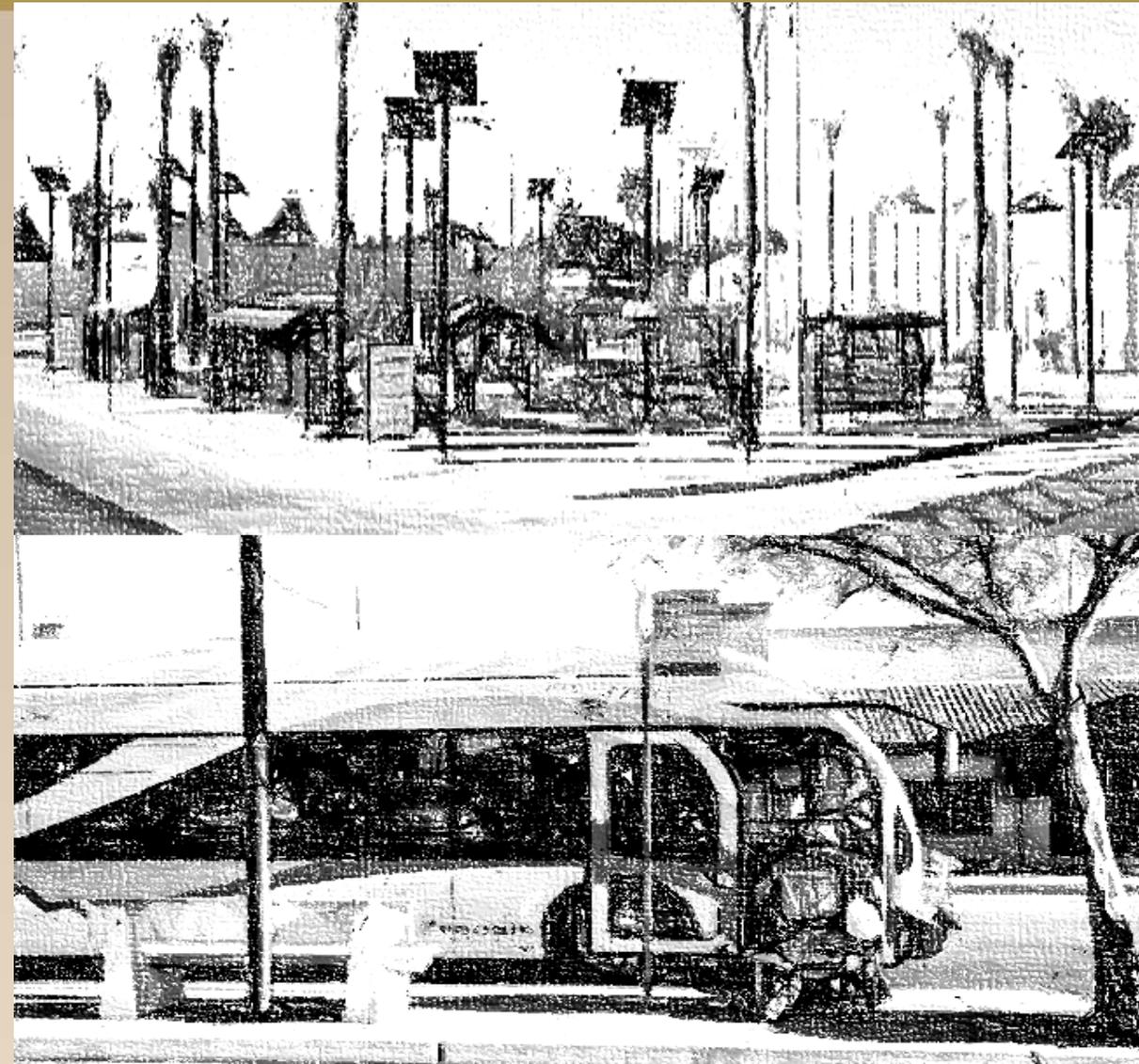
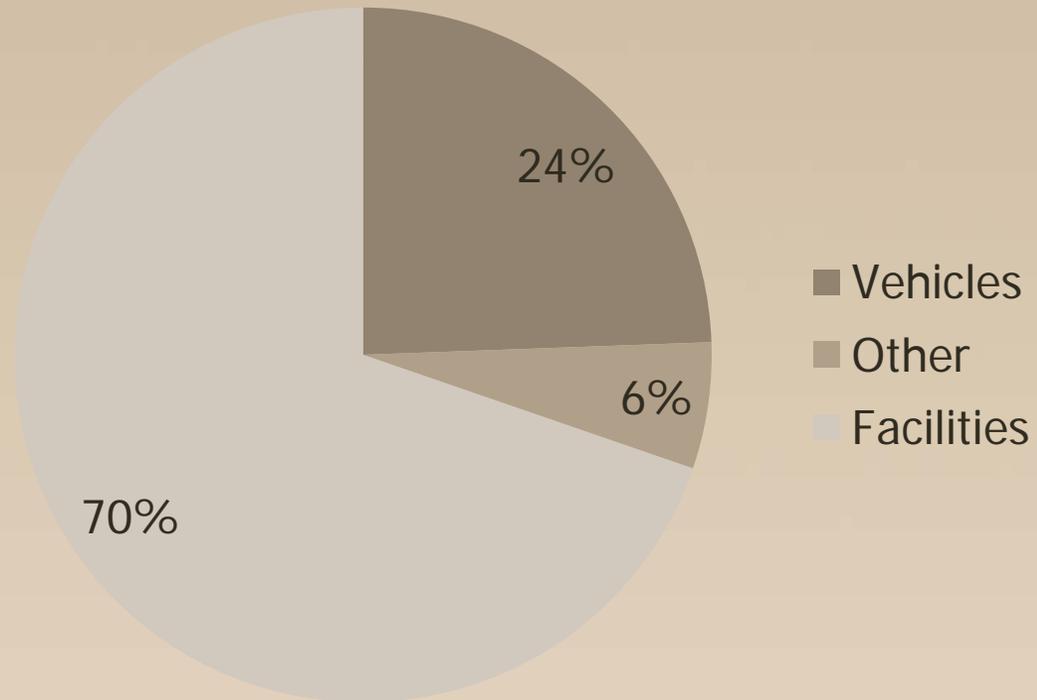
## SCAG REGION FISCAL YEAR 2011-2012: OPERATING COSTS AND REVENUES

Total Operating Expenditures	\$ 2,648,309,258
Vehicle Operations Costs	\$ 1,386,941,650
Vehicle Maintenance	\$ 490,804,407
Non Vehicle Maintenance	\$ 178,230,882
General Administration	\$ 576,909,209
Fare Box Revenues	\$ 628,731,152

Source: NTD TS 2.1 2016

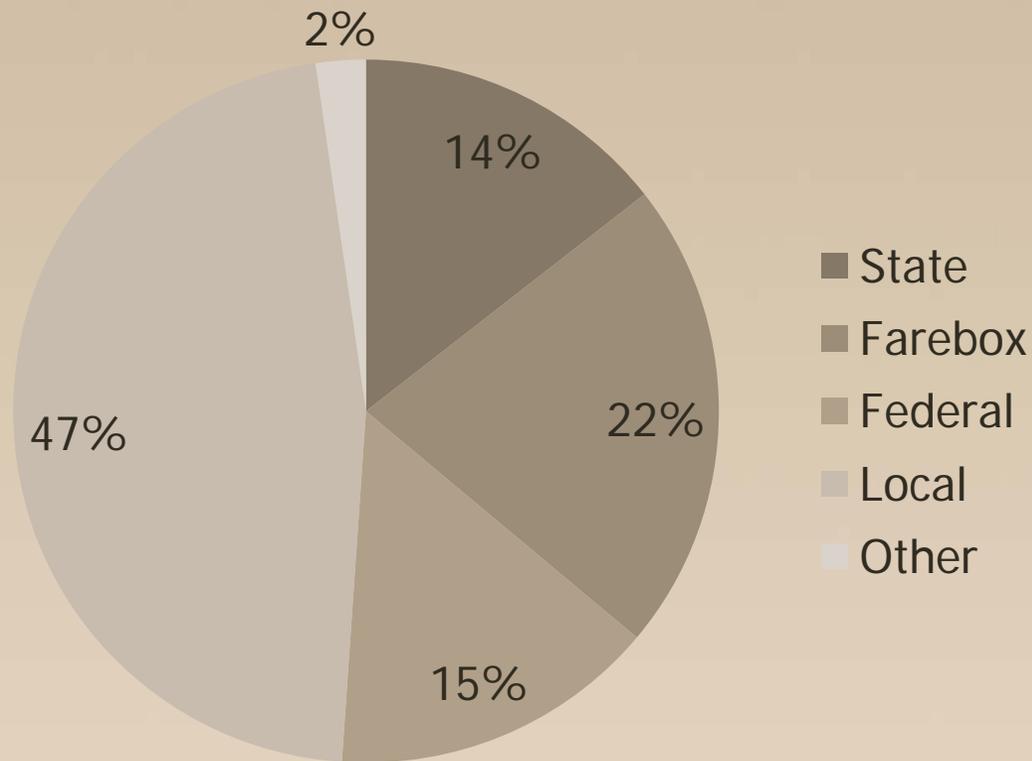


# Capital Expenditures FY2013-14

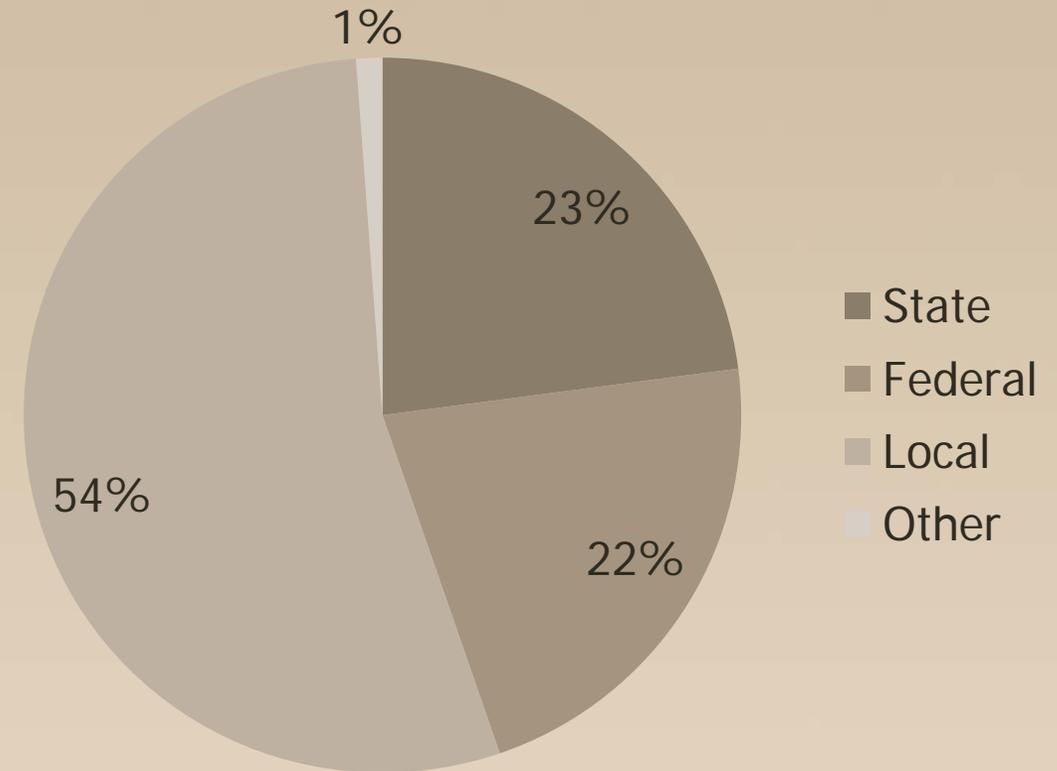


# Sources of Operating and Capital Funds

## Sources of Funds-O&M



## Sources of Funds-Capital



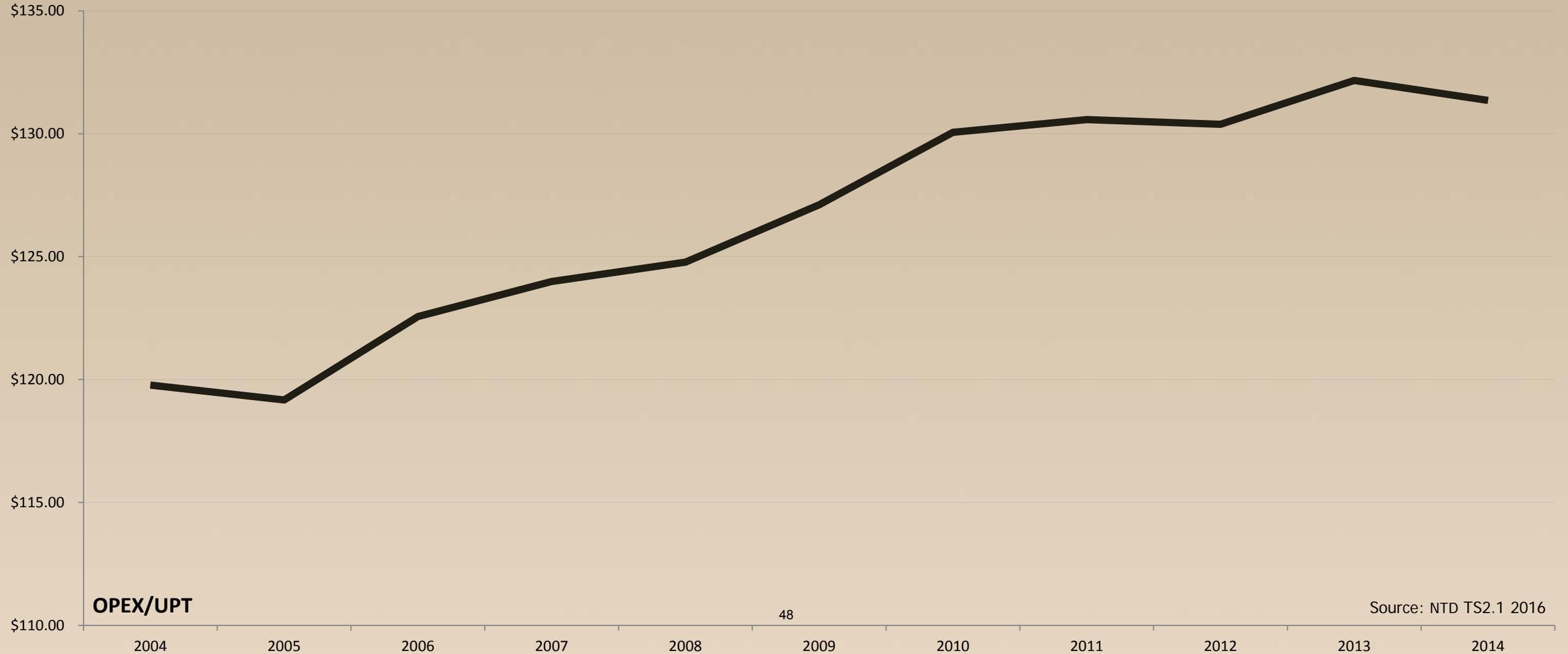
# Regional Performance Analysis

## Regional Performance Trends

- 10 Year Trend
- 2014 Dollars
- FY2013-14 Data, aggregated at Regional level



# Operating Cost per Revenue Hour SCAG Region, 2004-2014, 2014 Dollars



OPEX/UPT

# Farebox Recovery

## SCAG Region, 2004-2014



Fare/OPEX

# Operating Cost per Passenger Trip SCAG Region, 2004-2014, 2014 Dollars



OPEX/UTP

# Operating Cost per Passenger Mile SCAG Region, 2004-2014, in 2014 Dollars

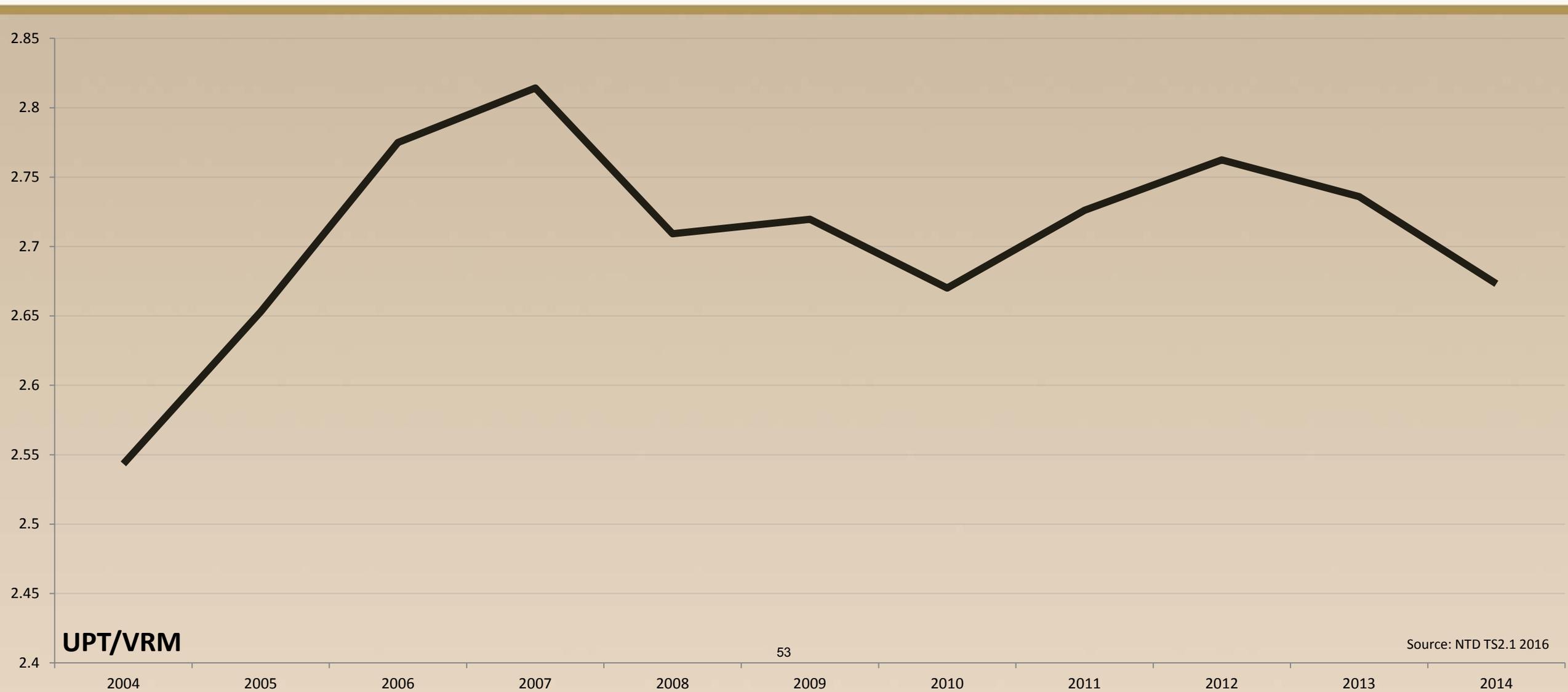


OPEX/PMT

# Passengers per Revenue Hour SCAG Region, 2004-2014

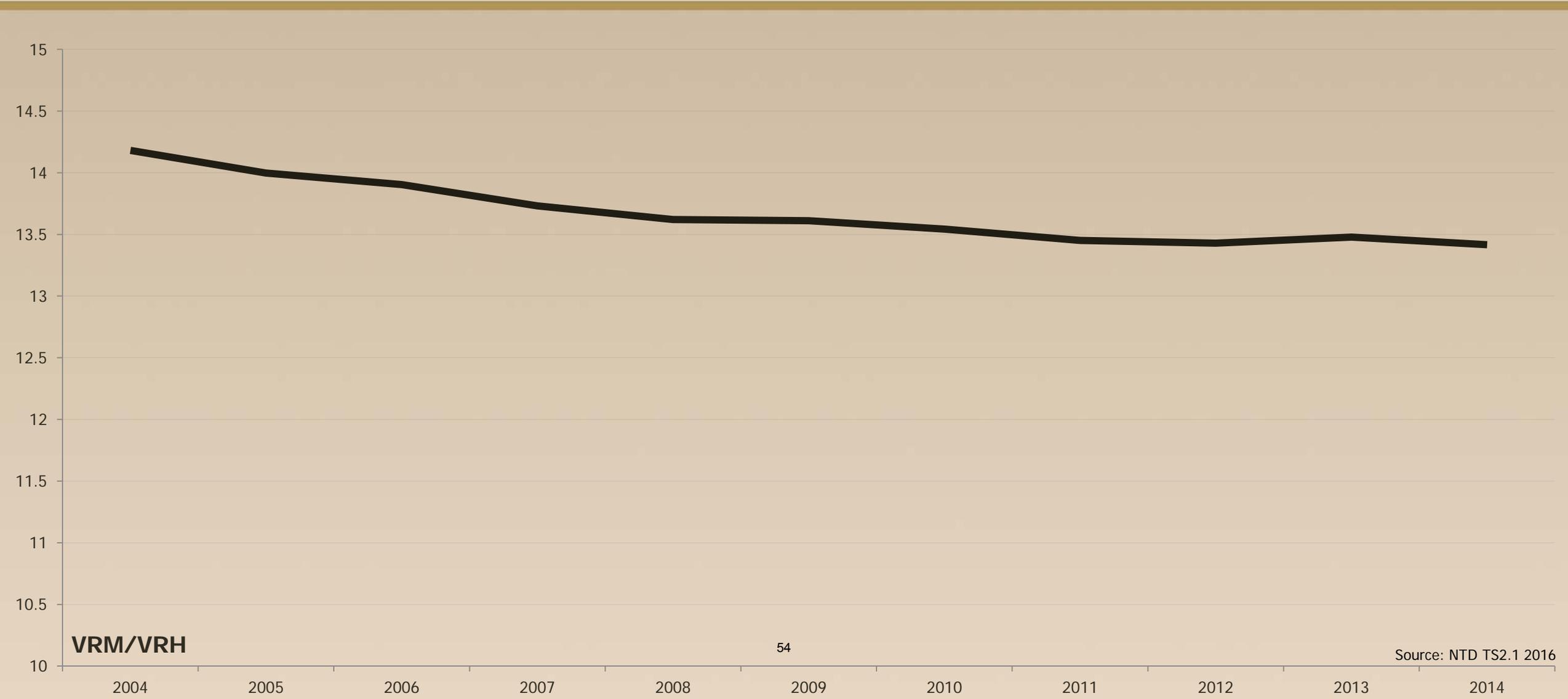


# Passengers per Revenue Mile SCAG Region, 2004-2014



UPT/VRM

# Fleet Average Vehicle Speed SCAG Region, 2004-2014, Miles per Hour



VRM/VRH

# Next Steps: Analysis

- Update non-NTD data sources
- Analyze FY2013-14 data at the sector level report back in the summer
  - Looking at focusing on current year measures instead of operator profiles
  - Trend analysis to be aggregated at Market Sector level



# Next Steps: Market Sectors

## Market Sectors

- Attempt to group transit properties in analytically beneficial way based on:
  - Governance
  - Service Area /Travel Market
- Allow for closer trend analysis
  - Focus on unpacking counterintuitive trends
  - Looking at groups of operators assists in spotting trends more quickly
- Provide more accessible benchmarking



# Next Steps: Market Sectors

## Proposed Sectors:

Proposed Market Sectors	
Coachella Valley	Metro Bus
Commuter Rail	Metro Rail
East Ventura	OC Munis
Imperial	OCTA
Inland Empire*	Victor Valley
LA County Muni	West Ventura
LA County LTSS	

57

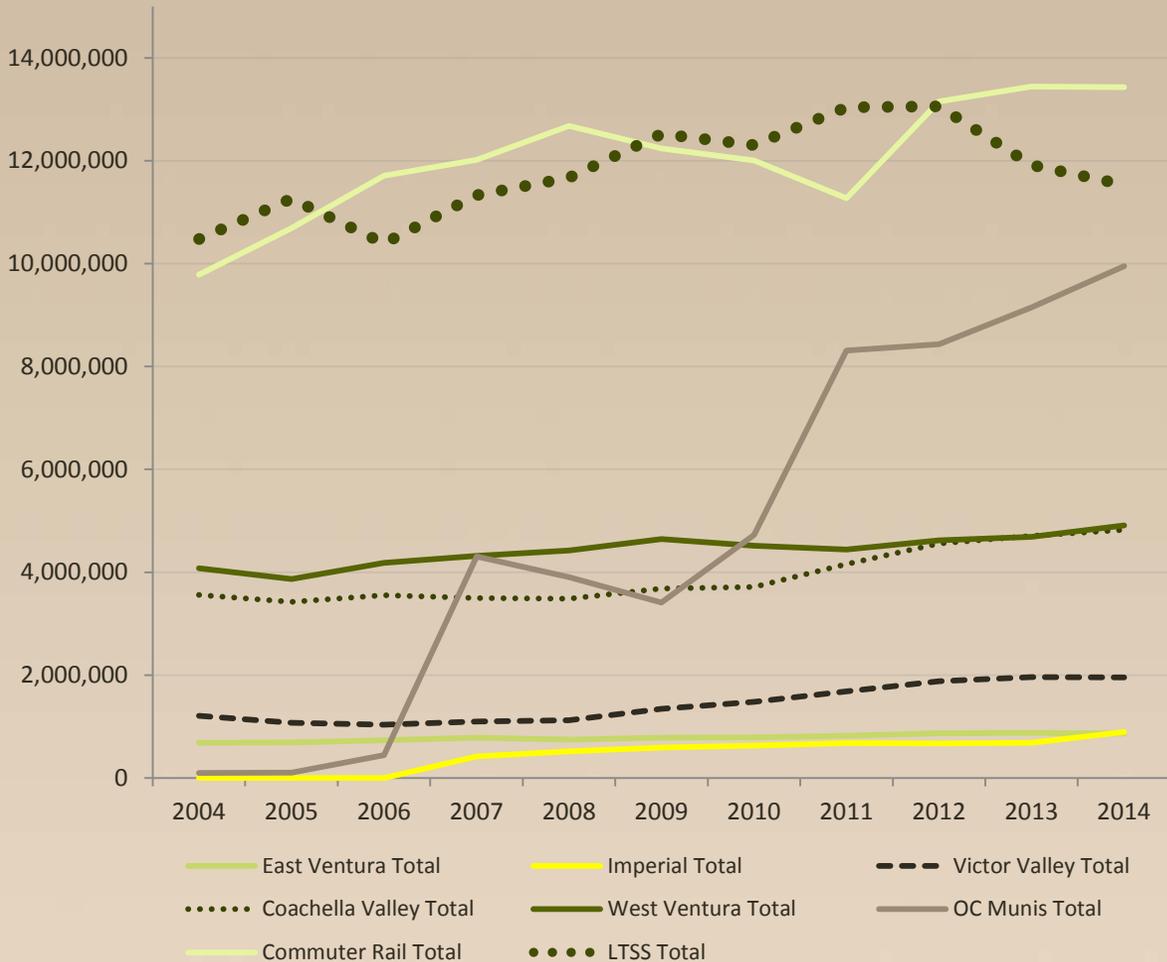
\*The Inland Empire refers to Western Riverside County and the San Bernardino Valley



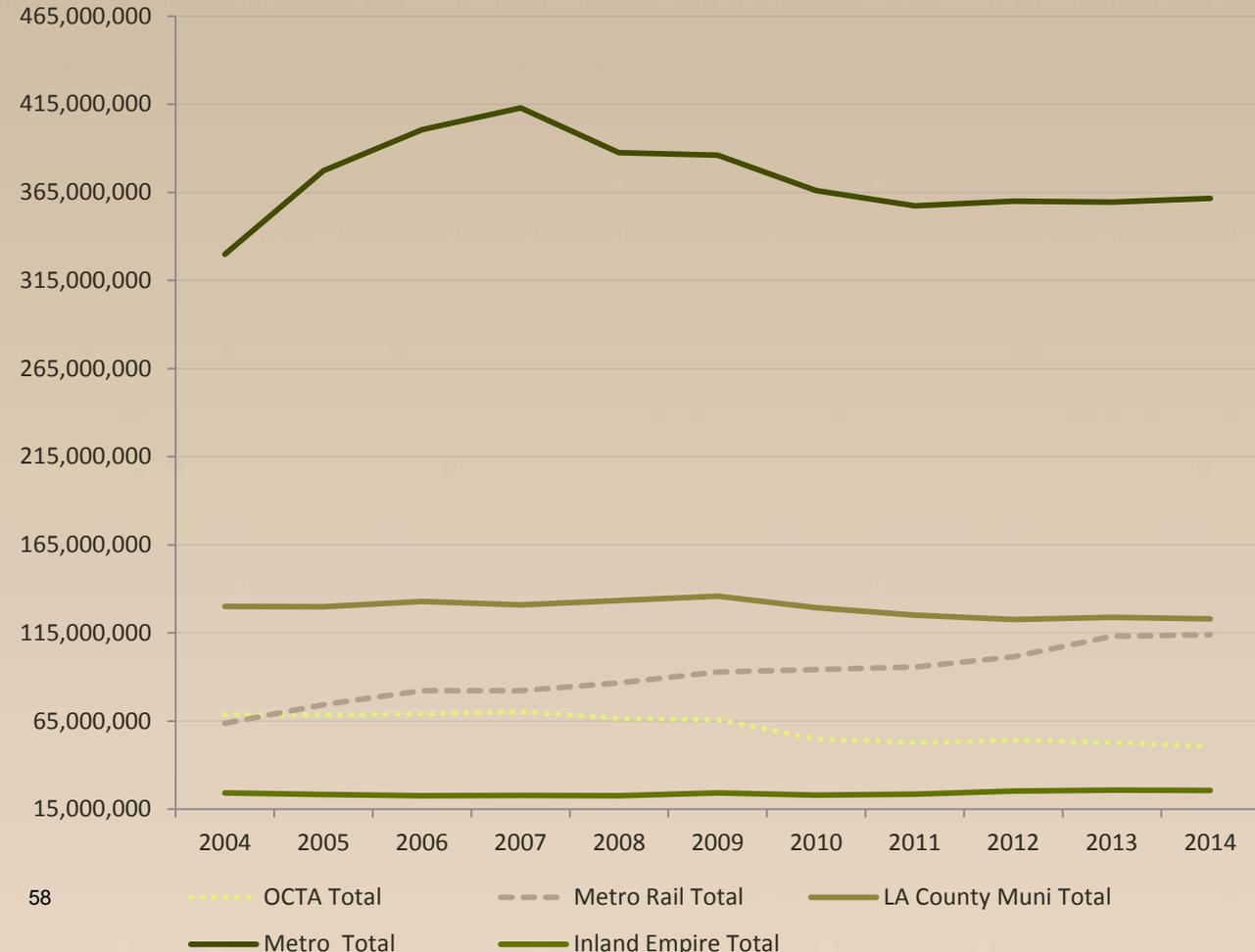
# Market Sectors

## Trend Analysis Example

### Sectors below 15M UPT



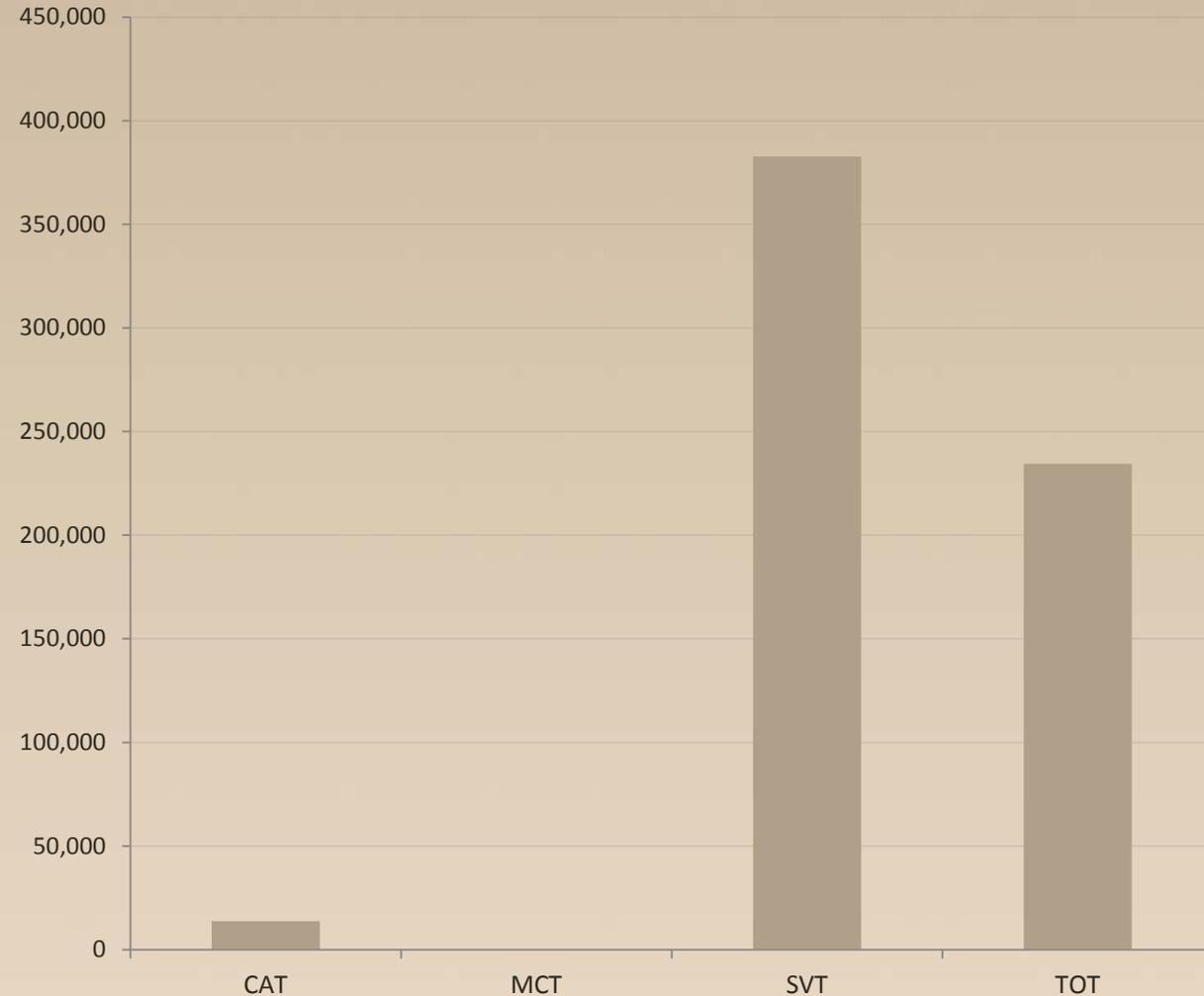
### Sectors above 15M UPT



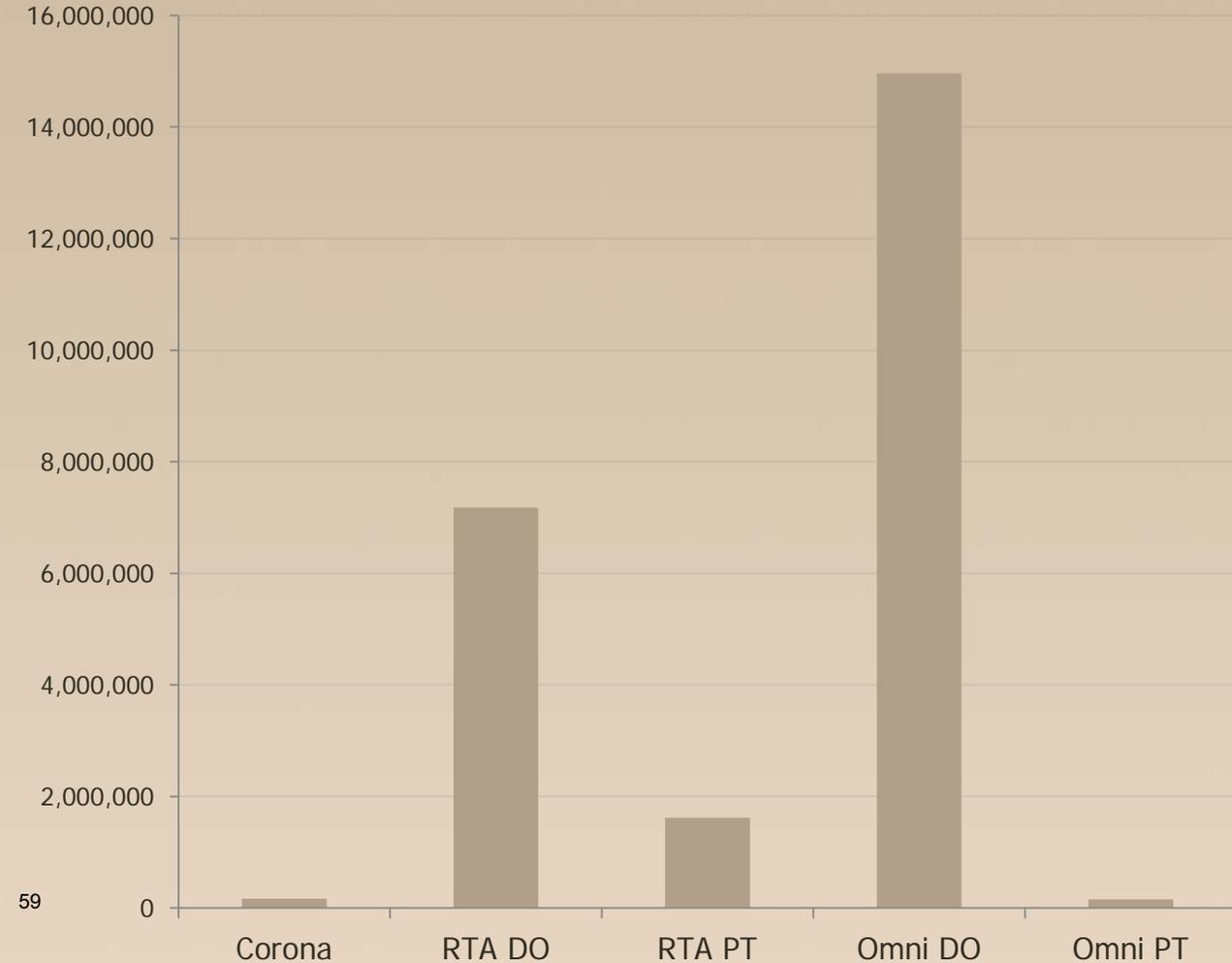
# Market Sectors

## Current Year Analysis Example

East Ventura UPT Bus



Inland Empire UPT Bus



# Questions?



**For more information, please contact:**

**Matt Gleason – [gleason@scag.ca.gov](mailto:gleason@scag.ca.gov)  
(213)-236-1832**

**[www.scag.ca.gov/transit](http://www.scag.ca.gov/transit)**

**DATE:** March 24, 2016

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

**FROM:** Hasan Ikhata, Executive Director, (213) 236-1944, ikhata@scag.ca.gov

**SUBJECT:** Proposed Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS)

**EXECUTIVE DIRECTOR'S APPROVAL:** 

**RECOMMENDED ACTION:**

Recommend that the Regional Council approve and adopt the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS), including the associated conformity determination and the associated Consistency Amendment No. 15-12 to the 2015 Federal Transportation Improvement Program (FTIP), by adopting Resolution No. 16-578-2.

**EXECUTIVE SUMMARY:**

*After more than three years of work, extensive coordination with SCAG's local jurisdictions, the County Transportation Commissions (CTCs) and other partner agencies, and significant public outreach, staff submits the Proposed Final 2016 RTP/SCS to the Policy Committees. Described within this report are the revisions to the Draft 2016 RTP/SCS in response to public comments and input received from the Policy Committees leading to preparation of the Proposed Final 2016 RTP/SCS. The Proposed Final 2016 RTP/SCS continues to meet all state and federal requirements, including transportation conformity and Senate Bill 375 (SB 375). The Proposed Final 2016 RTP/SCS and corresponding appendices are available at <http://scagrtpscs.net/Pages/PROPOSEDFINAL2016RTPSCS.aspx>. Staff recommends that the CEHD, EEC, and TC jointly recommend adoption of Resolution No. 16-578-2 relating to the adoption of the Final 2016 RTP/SCS and associated actions.*

**STRATEGIC PLAN:**

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

**BACKGROUND:**

As background for today's actions, it is important to remind the Policy Committees of the purpose of the 2016 RTP/SCS (also referred to herein as the "Plan"). Building from the policies set forth in the 2012 RTP/SCS, the Plan is an investment plan that advances mobility, sustainability and economic competitiveness for Southern California's future. Based upon extensive local collaboration, the Plan contains projects, policies and strategies that seeks to provide more mobility options, preserves the region's aging transportation system, encourages better integration of land use and transportation while taking into account the changes in demographics and population, and acknowledges the growing significance of emerging technologies.

Using the most current information, SCAG, as the Metropolitan Planning Organization (MPO) for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, is required by federal law (23 USCA §134 et seq.) to prepare and update every four years a long-range (minimum of 20 years) Regional Transportation Plan (RTP) that provides for the development and integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG metropolitan planning area.

The process for development of the RTP takes into account all modes of transportation and is accomplished by a “continuing, cooperative and comprehensive” (the 3 C’s) planning approach, which is also performance-driven and outcome-based. In addition, because the SCAG region is designated as nonattainment for ozone or carbon monoxide under the Clean Air Act (42 U.S.C. §7401 et seq.), the RTP must conform to applicable air quality standards.

The passage of California Senate Bill 375 (SB 375) in 2008 requires that an MPO prepare and adopt a Sustainable Communities Strategy (SCS) that sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce greenhouse gas emissions from automobiles and light duty trucks (Govt. Code §65080(b)(2)(B)). The SCS outlines certain land use growth strategies that provide for more integrated land use and transportation planning, and maximize transportation investments. The SCS is intended to provide a regional land use policy framework that local governments may consider and build upon. Finally, the development of the RTP/SCS is subject to the California Environmental Quality Act (CEQA). Therefore, SCAG also prepares a Program Environmental Impact Report (PEIR) for the RTP/SCS that evaluates the potential environmental impacts associated with the Plan.

To review a more detailed summary regarding specific Plan components, please refer to SCAG staff reports from the November 5, 2015 and December 3, 2015 Joint Policy Committee and Regional Council meetings when actions were taken on the Plan (see **Attachments 1 and 2**). Some of the components of the Plan are discussed in this report for the Policy Committees’ attention because they relate to a particular comment or comments received as part of the public review process of the Draft Plan.

### ***Release of the Draft 2016 RTP/SCS***

SCAG released the Draft 2016 RTP/SCS and the associated Consistency Amendment No. 15-12 to the Federal Transportation Improvement Program (FTIP) for a 60-day public review and comment period that officially began on December 4, 2015 and ended on February 1, 2016. SCAG received 162 individual communications containing approximately 1,000 separate comments regarding the Draft 2016 RTP/SCS. Staff presented an overview of the comments received on the Draft 2016 RTP/SCS and a proposed approach to the responses, to the Joint Policy Committee on March 3, 2016. The March 3 staff report is attached for reference (Attachment 3). The comments, letters, and e-mails received and staff responses to comments were posted on March 14, 2016 at <http://rtpscs.scag.ca.gov>. The federally approved FTIP consistency amendment No. 15-12 will be posted at <http://ftip.scag.ca.gov/Pages/2015/approved.aspx>.

This report provides the Policy Committees with summary information on the Proposed Final 2016 RTP/SCS. Based on the input and comments received from the stakeholders and interested parties

through the public workshops and the formal comment process, staff undertook the following activities in preparing the Proposed Final 2016 RTP/SCS:

- Documented and responded to every comment received, including testimonies that were provided at the formal public hearings that were conducted in each of the six (6) counties;
- Worked with the County Transportation Commissions (CTCs) to update the Plan's list of projects with most current information available. Refinements were made to scopes of work, completion years, project costs, etc.;
- Updated the growth forecast to reflect the most current information, including jurisdictional level for the population and households for the Riverside County unincorporated area, March Joint Powers Authority (JPA) area, and sub-jurisdictional level adjustments for Los Angeles, Simi Valley, and Oxnard;
- Re-ran the travel demand model and the analytical process to reflect the updated transportation network (projects) and the socio-economic data;
- Prepared an amendment to the Federal Transportation Improvement Program (FTIP Amendment No. 15-12) to ensure consistency with the Final 2016 RTP/SCS;
- Revised the Plan to reflect updates occurring at the state and federal levels since the time the Draft Plan was approved for release. Specifically, the Plan now incorporates updated information regarding the latest federal surface transportation legislation, the Fixing America's Surface Transportation Act, or "FAST Act," and takes into account the recently released California High-Speed Rail Authority (CHSRA) Draft 2016 Business Plan; and
- Revised the Draft 2016 RTP/SCS as well as supporting appendices to incorporate updates and appropriate changes.

The revisions incorporated into the Proposed Final 2016 RTP/SCS are minor and do not change the underlying themes and conclusions that were described in the draft documents released in December 2015. However, it is important to note again that the development of the RTP/SCS is based upon a continuing, cooperative, and comprehensive ("3-C") planning process. To this point, to the extent that suggestions made by commenters to the Draft 2016 RTP/SCS were not incorporated or addressed in the Proposed Final 2016 RTP/SCS, opportunities exist in the 3-C planning process for further discussion and analysis as part of future RTP/SCS amendments and updates. The more noteworthy updates to the Draft 2016 RTP/SCS are detailed in subsequent sections.

### ***State and Federal Requirements and Plan Benefits***

With these updates incorporated, the Proposed Final 2016 RTP/SCS continues to meet all of the federal and state requirements. More specifically, it meets all provisions for transportation conformity under the federal Clean Air Act. The Plan also performs well when it comes to meeting state-mandated targets for reducing greenhouse gas emissions from automobiles and light trucks. The state-determined targets for the SCAG region are an eight percent per capita reduction in greenhouse gas emissions from automobiles and light trucks by 2020, and a 13 percent reduction by 2035 (compared with 2005 levels). The Plan would result in an eight percent reduction in emissions by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 (compared with 2005 levels).

Overall, the transportation investments in the 2016 RTP/SCS will provide a return of \$2.00 for every dollar invested. Compared with an alternative of not adopting the Plan, the Proposed Final 2016 RTP/SCS would accomplish the following:

- Regional air quality would improve under the Plan, as cleaner fuels and new vehicle technologies help to significantly reduce many of the pollutants that contribute to smog and other airborne contaminants that impact public health in the region.
- The combined percentage of work trips made by carpooling, active transportation and public transit would increase by about four percent, with a commensurate reduction in the share of commuters traveling by single occupant vehicle.
- The number of Vehicle Miles Traveled (VMT) per capita would be reduced by more than seven percent and Vehicle Hours Traveled (VHT) per capita by 17 percent (for automobiles and light/medium duty trucks) as a result of more location efficient land use patterns and improved transit service.
- Daily travel by transit would increase by nearly one-third, as a result of improved transit service and more transit-oriented development patterns.
- The Plan would reduce delay per capita by 39 percent and heavy duty truck delay on highways by 40 percent. This means we would spend less time sitting in traffic and our goods would move more efficiently.
- More than 351,000 additional new jobs annually would be created, due to the region's increased competitiveness and improved economic performance that would result from congestion reduction and improvements in regional amenities as a result of implementing the Plan.
- The Plan would reduce the amount of previously undeveloped (greenfield) lands converted to more urbanized uses by 23 percent. By conserving open space and other rural lands, the Plan provides a solid foundation for more sustainable development in the SCAG region.
- The Plan would result in a reduction in our regional obesity rate from 26.3 percent to 25.6 percent, and a reduction in the share of our population that suffers with high blood pressure from 21.5 percent to 20.8 percent.

### ***Addressing Public Comments***

As previously reported as part of the March 3, 2016, Joint Policy Committee meeting, based on staff's review, the majority of comments regarding the Draft 2016 RTP/SCS were generally supportive of the Plan.

### **Active Transportation**

SCAG increased active transportation investments from \$6.7 billion in the 2012 RTP/SCS to \$12.9 billion in the Proposed Final 2016 RTP/SCS, linking transit, improving neighborhood walkability, increasing the convenience of biking and walking and connecting the region via a regional bikeway network, and a regional greenway network comprised of river paths, utility corridors, and abandoned rail lines.

Many commenters, including advocacy groups and public health agencies and organizations, encouraged SCAG to increase the proposed funding for active transportation investments over the levels identified in the Draft 2016 RTP/SCS. Many also encouraged SCAG to front-load or prioritize investments in active transportation over highway investments. Additionally, commenters wanted a greater emphasis on complete streets in all transportation projects. The Plan recommends complete streets principles as a funding method to more efficiently and cost-effectively construct active transportation projects by linking them to larger capital or maintenance projects. In addition, SCAG proposes pursuing greater identification and documentation of active transportation expenditures to help

provide a more complete picture related to local efforts that are not fully captured in the regional plan, including projects funded through lump-sum maintenance programs and active transportation components of larger multi-modal construction projects.

## Natural/Farm Lands

Regarding Natural & Farm Lands, the Proposed Final 2016 RTP/SCS outlines strategies and recommendations for the conservation of natural and farm lands in the SCAG region. Specific strategies include expanding upon the Open Space Conservation Database and Framework by incorporating strategic mapping layers to build the database and further refine the priority conservation areas; encouraging CTCs to develop advance mitigation programs and/or include them in future transportation measures; aligning with funding opportunities and pilot programs to begin implementation of the Natural Lands Conservation Plan through acquisition and restoration; and providing incentives to jurisdictions that cooperate across county lines to protect and restore natural habitat corridors, especially where corridors cross county boundaries.

Numerous comments were received that expressed general support for policies included in the Natural & Farm Lands Appendix. More specifically, several commenters articulated a strong desire to see SCAG take a leadership role in implementation of a regional conservation program, and many expressed their support for Regional Wildlife corridors and crossings, and the promotion of conservation mechanisms other than Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCPs), such as the programs of local, regional, state and federal agencies and non-profit and non-governmental conservation organizations who help facilitate, coordinate and find funding for land conservation transactions. In the coming years, SCAG will be working with local entities to assist in the cross-jurisdictional coordination of habitat conservation strategies. Conservation groups are encouraged to participate in the effort. In addition, SCAG intends to work with local entities to assist in the cross-jurisdictional coordination of habitat conservation. Suggestions for strategies and mechanisms in addition to HCPs and NCCPs will be encouraged and appreciated.

Though numerous supportive comments were received, many comments requested clarifications and Plan refinements. The more challenging issues that were raised are described below along with how SCAG staff addressed them.

## Aviation

SCAG undertook the development of updated air passenger demand forecasts for the 2016 RTP/SCS based on two premises:

- First, aviation demand is regional. Because aviation is used to travel much longer distances than cars, trains and other modes of transportation, nearly all commercial air travel generated by our region occurs between the region and some other region of the state, country, or globe. Most often, air passengers first make the choice to travel by air, and then they choose which airports to utilize for their trip. Thus, most often, the demand for air travel is for travel to and from the region as a whole to locations around the country and the world..
- Second, aviation demand is driven by macroeconomic trends at the regional, national, and global levels. Our region draws travelers from around the world because we are fortunate to have a diverse and growing population, many prominent cultural and educational institutions, a wealth

# REPORT

of natural attractions from the mountains to the coast, a warm and sunny climate, and tourist attractions that are known worldwide. Thus, the demand for air travel between the SCAG region and other parts of the world depends on the level of economic activity not just here but in many other locations around the country and the world.

Based on the historical relationship between economic activity and the demand for air travel, as well as expected future economic conditions in our and other regions, total air passenger demand in our region is expected to increase from 91.2 million annual passengers (MAP) in 2014 to 136.2 MAP in 2040. This represents a 1.6 percent annual growth rate over the forecast period. This regional forecast is strong and reflects the potential for the region to have long-term economic recovery and growth. This regional passenger demand distribution of 136.2 MAP along with the hybrid approach of ranges and fixed numbers for each of the twelve regional commercial airports was previously approved by the Transportation Committee (TC) on August 6, 2015.

Airport	2040 Demand (MAP)
TOTAL	136.2
Burbank Bob Hope Airport (BUR)	7.3
Imperial County Airport (IPL)	0.2
Los Angeles International Airport (LAX)	82.9 - 96.6
Long Beach Airport (LGB)	5.0
LA/Ontario International Airport (ONT)	11.0 - 19.0
Oxnard Airport (OXR)	0.2
Palmdale Regional Airport (PMD)	0.5 - 2.5
Palm Springs International Airport (PSP)	3.7
March Inland Port (RIV)	0.2
San Bernardino International Airport (SBD)	0.2 - 1.5
John Wayne Airport (SNA)	12.5
Southern California Logistics Airport (VCV)	0.2

Note: These forecasts were approved by Transportation Committee on August 6, 2015.

SCAG received multiple comments regarding the airport specific aviation demand forecast methodology for Los Angeles Airport (LAX). The comments focused on SCAG’s justification for developing and recommending for adoption a forecast that was higher than the LAX Settlement Agreement (most sections of the agreement expired in December, 2015). To develop the LAX capacity analysis SCAG used the provisions in the Settlement Agreement including the Gate Cap. In response to these comments, SCAG has clarified that the LAX MAP range of 82.9 to 96.6 is the capacity of LAX accounting for projects that have completed the environmental review process. Actual demand at LAX, without capacity constraint, could be even higher by 2040. This estimate is consistent with LAWA's current planning efforts for its facilities based on gate cap of 153 pursuant to the settlement agreement which sunsets in 2020. This is further explained in the Analysis of Airport Capacity which is available for review on SCAG's website: <http://www.scag.ca.gov/Documents/AnalysisOfAirportCapacityConstraints.pdf>.

Should the Settlement Agreement be changed or extended in the future, SCAG will consider reflecting the changes through future update to the RTP/SCS as appropriate.

SCAG also received comments questioning the inclusion of ground access projects in the RTP/SCS that have not received full environmental clearance. There are no regulatory or statutory restrictions that prohibit inclusion of such projects in the Plan, and inclusion of a project in the RTP/SCS can be viewed as the first step towards implementation of the project. Thus, these projects will continue to be included within the 2016 RTP/SCS and it should be noted that the major elements of the LAX Landside Access Modernization Program were included in the 2012 RTP/SCS. Should the scope and nature of a project change in the course of the environmental review process, such changes can be reflected in future Plans either through the regular update process or through an amendment. In summary, the RTP/SCS will continue to reflect the LAX MAP range of 82.9 to 96.6 million annual passengers and include ground access projects that have not received full environmental clearance.

### **California High-Speed Rail**

The 2016 RTP/SCS proposes three main passenger rail strategies to improve speed, service and safety, and provide an attractive alternative to driving alone. They are: improve the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor, improve the existing Metrolink system, and implement Phase 1 of the California High-Speed Train. With the adoption of the 2012 RTP/SCS, the region and the California High-Speed Rail Authority (CHSRA) committed, through a Memorandum of Understanding (MOU), to invest \$1 billion in Proposition 1A and other funds in early investments in the “bookends” of the Phase 1 system. This commitment is maintained in the 2016 RTP/SCS, to provide immediate and near-term benefits to Metrolink and LOSSAN while laying the groundwork for future integration with the High-Speed Train.

SCAG received a comment stating that the CHSRA Draft 2016 Business Plan might include a new strategy to pursue an Initial Operating Segment (IOS) connecting to the San Francisco Bay Area rather than to the SCAG region as previously envisioned. SCAG received another comment requesting that clarifying language be inserted in the RTP/SCS to indicate that SCAG’s support for the California High-Speed Train was contingent upon the MOU commitment of \$1 billion towards local rail improvements. In summary, the RTP/SCS remains largely unchanged from the Draft 2016 RTP/SCS with respect to content regarding California High-Speed Rail. SCAG staff reviewed the Draft 2016 Business Plan and are working with the CHSRA and MOU agencies to reaffirm the collective commitment to the Southern California High-Speed Rail MOU, which calls for \$1 billion in early investments in the Metrolink and LOSSAN systems in Southern California. The Draft 2016 Business Plan does not alter the completion date of 2029 for the Phase 1 system connecting San Francisco and Los Angeles/Anaheim, which was assumed in the 2014 Business Plan and in the RTP/SCS. Because the CHSRA Board is not expected to adopt the Final 2016 Business Plan until after the 2016 RTP/SCS is adopted, SCAG may prepare an amendment to the RTP/SCS to reflect changes to the IOS.

### **Environmental Justice**

SCAG’s Environmental Justice Appendix analyzes the Plan to ensure that there are no unaddressed disproportionate and adverse impacts to low income and minority communities. Results show that these groups will benefit from the RTP/SCS more than they will pay into it, and the Plan will increase accessibility to employment, shopping destinations, and parks. Future roadway, transit, and active transportation improvements in low income and minority neighborhoods are also proportionate to these

area's share of the region's population. Emissions reductions from the Plan will also be seen at the regional level, and also in areas with the highest concentration of low income and minority residents.

SCAG received multiple comments expressing concern regarding gentrification and displacement as a result of transit investments from the Plan, and suggesting that SCAG expand its analysis in the Environmental Justice Appendix. SCAG also received comments requesting that SCAG track trends and foster coordination between advocacy groups and local jurisdictions to address these challenges. In response to these comments, SCAG expanded the gentrification and displacement section of the Environmental Justice Appendix to include additional variables, such as an analysis on the cost burdens for renters and owners for neighborhoods that are within close proximity to rail transit stops. SCAG also incorporated an expanded discussion on affordable housing into the RTP/SCS. SCAG intends to continue to work with stakeholders and jurisdictions to look at ways to address social equity challenges, particularly in terms of gentrification and displacement. In summary, the RTP/SCS includes additional information regarding gentrification and displacement as well as affordable housing.

## **Financial Plan**

The Proposed Final 2016 RTP/SCS invests \$556.5 billion through the forecast horizon year of 2040 to significantly improve every component of our multi-modal transportation system, including much needed investment for the operation and maintenance of our existing system. Operating and maintenance (O&M) expenditures needed to achieve a state of good repair total \$275.5 billion. Capital investments total \$246.6 billion while projections of debt service obligations total \$34.5 billion through 2040.

Consistent with the Draft Plan released in December of 2015, funding of the Final Plan is based on \$356.1 billion in core revenue sources and \$200.4 billion in new revenue sources that are reasonably expected to be available over the plan period. Local sources, totaling \$254.7 billion, comprise the largest share of core revenues at 71 percent, followed by state sources totaling \$63.8 billion (18 percent) and federal sources totaling \$37.7 billion (11 percent). The core revenue forecast does not include future increases in tax rates or adoptions of new tax measures.

The forecast of expenditure needs totals \$556.5 billion. The difference between the expenditure forecast total (\$556.5 billion) and the core revenue forecast total (\$356.1 billion) is \$200.4 billion. As part of the Final 2016 RTP/SCS, reasonably available new revenue sources including short-term adjustments to state and federal gas excise tax rates and long-term replacement of gas taxes with mileage-based user fees (or other comparable source such as equivalent adjustment to fuel tax adjustments) have been identified to demonstrate fiscal constraint per federal requirements.

SCAG received multiple comments regarding the assumption of reasonably available new revenue sources in the Plan—primarily focused on the mileage-based user fee. SCAG concurs that additional work is needed including, but not limited to evaluating options for implementation, accountability and approaches for protecting privacy as well as addressing income and geographic (e.g., urban vs. rural) equity impacts before the mileage-based user fee would become effective—which is why the Plan does not assume revenues from this source before 2025. Further, state agencies will be conducting a nine (9) month long pilot test of road charging during the summer of 2016 to address some of these issues. Additionally, the recently passed federal FAST Act establishes the Surface Transportation System Funding Alternatives program, which make grants to states to demonstrate alternative user-based

revenue mechanisms that could maintain the long-term solvency of the federal Highway Trust Fund and to provide recommendations for adoption and implementation nationally. SCAG, in collaboration with local, regional, state and federal stakeholders, will continue to actively participate in efforts to make transportation funding more sustainable in the long-run. In summary, the RTP/SCS financial plan, including new revenue sources, remains unchanged from the Draft 2016 RTP/SCS. The Proposed Final 2016 RTP/SCS meets federal requirements for financial constraint, and it is consistent with the priorities and projects identified in voter-approved sales tax measures and CTC adopted long-range plans.

## **Project List - SR-710 North Project**

A core component of the Plan is the Project List Appendix, which includes projects that are deemed regionally significant and/or anticipate receiving (or are already receiving) federal and state funds. The region's six CTCs provide extensive input on the 4,000 projects (including Federal Transportation Improvement Program projects) that are included within the Plan.

SCAG received several comments regarding specific RTP/SCS projects, and in particular, the SR-710 North Project. SCAG recognizes that this project is currently pending environmental review, and as with other projects included within the Plan's Project List Appendix, when the SR-710 North Study environmental review process is complete and a locally preferred alternative (LPA) is identified in the final environmental document, SCAG will work with the Los Angeles County Metropolitan Transportation Authority (Metro) to amend the RTP/SCS as necessary to update the project description and associated modeling analysis. The SR-710 North Project is currently modeled as four toll lanes in each direction. SCAG believes that modeling the SR-710 North Project as a toll lane is justified as it represents a conservative scenario (worst-case) with respect to potential environmental impacts and adequately serves as a placeholder benchmark to analyze the SR-710 North Project's effect on the entire SCAG region. In summary, the RTP/SCS will continue to include the SR-710 North Project.

## **Sustainable Communities Strategy**

Land use strategies for the Proposed Final 2016 RTP/SCS focus new growth around transit to support a range of transportation options, reduce vehicle miles travelled, and reduce greenhouse gas emissions from automobiles and light duty trucks. Strategies are based upon foundational land use policies as expressed in Chapter 5. Recognizing the wide range of established urban, suburban and rural environments within a diverse region, the Plan anticipates new growth within High Quality Transit Areas (HQTAs) reflecting market trends and expanding transportation and housing choices. With 46 percent of new households and 55 percent of new jobs over the life of the Plan locating within one-half mile of a transit stop or a transit corridor, the Plan reinforces the jobs/housing connection in the SCAG region. New growth around transit can be realized by applying concepts such as Livable Corridors and providing more options for short trips in Neighborhood Mobility Areas. Focusing new growth around transit diverts growth away from natural lands to areas with existing services and infrastructure and lessens the financial costs of new growth in local jurisdictions.

A forecasted development pattern for the region through 2040 is depicted through a series of Forecasted Development Type Maps included in the Plan's SCS Background Documentation Appendix. SCAG received several comments regarding CEQA incentive eligibility and other incentive and funding programs, and how to utilize SCAG's Forecasted Development Type Maps to determine SCS consistency. There were some comments requesting further detailed maps, and some requesting the maps not be utilized to determine any SCS consistency. As approved by the Community, Economic and

Human Development (CEHD) Policy Committee in October 2015, five core principles provided the framework for the preferred scenario. These principles clarify that the Plan will be adopted at the jurisdictional level and any data at the sub-jurisdictional level is advisory. To reinforce the established principles approved by the CEHD Committee, and based upon discussions with some of SCAG's subregional partners and the Technical Working Group (TWG) regarding clarification on the use of sub-jurisdiction level data, the following text was added to Chapter 4 of the Proposed Final 2016 RTP/SCS:

“Consistent with the above stated principles, the preferred scenario and corresponding forecast of population, household and employment growth is adopted at the jurisdictional level as part of the 2016 RTP/SCS, and sub-jurisdictional level data and/or maps associated with the 2016 RTP/SCS is advisory only. For purposes of qualifying for future funding opportunities and/or other incentive programs, sub-jurisdictional data and/or maps used to determine consistency with the Sustainable Communities Strategy shall only be used at the discretion and with the approval of the local jurisdiction. However, this does not otherwise limit the use of the sub-jurisdictional data and/or maps by SCAG, County Transportation Commissions, Councils of Governments, SCAG Subregions, Caltrans, and other public agencies for transportation modeling and planning purposes. Any other use of the sub-jurisdictional data and/or maps not specified herein, shall require agreement from the Regional Council, respective policy committees and local jurisdictions.”

Moreover, the 2016 RTP/SCS has been revised to provide further flexibility to local jurisdictions. Specifically, Principle #3 has been revised to account for the potential need for broader consistency determinations relating to CEQA. Principle #3 will now read as follows:

“For the purpose of determining consistency for California Environmental Quality Act (CEQA) ~~streamlining~~, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS.”

Attachment 4 of this staff report is the resolution proposed to be approved by the Regional Council on April 7, 2016, relating to the adoption of the 2016 RTP/SCS and associated air quality conformity determination for the Plan as well as consistency determination of Consistency Amendment No. 15-12 to the 2015 FTIP (ensuring that projects in the 2015 FTIP are consistent with 2016 RTP/SCS).

## NEXT STEPS

Following today's meeting, with your recommendation, staff will request that the Regional Council officially approve and adopt the Final 2016 RTP/SCS on Thursday, April 7, 2016, and act upon the related resolution in accordance with the recommendations by the Policy Committees.

**FISCAL IMPACT:**

Work associated with this item is included in the Fiscal Year 2015-2016 Overall Work Program (WBS Number 15-010.SCG00170.01: RTP Support, Development, and Implementation).

**ATTACHMENTS:**

1. Joint Policy Committee Staff Report – November 5, 2015
2. Regional Council Staff Report – December 3, 2015
3. Joint Policy Committee Staff Report – March 3, 2016
4. Resolution No. 16-578-2 (Relating to the adoption of 2016 RTP/SCS and associated air quality conformity determination and Consistency Amendment No. 15-12 to 2015 FTIP)
5. PowerPoint Presentation: Proposed Final 2016 RTP/SCS

This Page Intentionally Left Blank

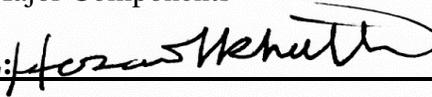
**DATE:** November 5, 2015

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

**FROM:** Hasan Ikhata, Executive Director, 213-236-1944, [ikhata@scag.ca.gov](mailto:ikhata@scag.ca.gov)

**SUBJECT:** Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) – Proposed Major Components

**EXECUTIVE DIRECTOR'S APPROVAL:**



**RECOMMENDED ACTION:**

Direct staff to prepare and finalize the Draft 2016 RTP/SCS document based upon the comprehensive summary of its major components and key policy recommendations as described in this staff report, and formally recommend that the Regional Council at its December 3, 2015 meeting release the Draft 2016 RTP/SCS for formal public review and comment.

**EXECUTIVE SUMMARY:**

*In preparation of the Regional Council's formal release of the Draft 2016 RTP/SCS for public review and comment in early December, staff will provide the members of the TC, CEHD, and EEC with details on the major components of the proposed Draft 2016 RTP/SCS. Specifically, staff will speak to the critical issues, explain the scenarios being considered, and describe key policy recommendations and potential outcomes associated with the Plan. Staff is seeking additional direction and feedback from the Policy Committees as staff works to complete the Draft 2016 RTP/SCS.*

*It should be noted that the Policy Committees have previously reviewed and taken action on several of the Plan's major components. Last month, staff provided the Regional Council and Policy Committees with a recap of the progress made on the development of the Draft Plan, and noted the previous actions taken by the Policy Committees regarding various matters. This Joint Meeting today builds upon these past actions by providing additional information so that TC, CEHD, and EEC can collectively provide direction to staff and make a recommendation to the Regional Council to release the Draft 2016 RTP/SCS for public review and comment on December 3, 2015.*

**STRATEGIC PLAN:**

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



## **A. INTRODUCTION AND BACKGROUND:**

Every four years, SCAG, as the Metropolitan Planning Organization (MPO) for the six-county region of Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial, is required by federal law (23 USCA §134 et seq.) to prepare and update a long-range (minimum of 20 years) Regional Transportation Plan (RTP) that provides for the development and integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG metropolitan planning area. The process for development of the RTP takes into account all modes of transportation and is accomplished by a “continuing, cooperative and comprehensive” (the 3 C’s) planning approach which is also performance-driven and outcome-based. In addition, because the SCAG region is designated as nonattainment for ozone or carbon monoxide under the Clean Air Act (42 U.S.C. §7401 et seq.), the RTP must conform to applicable air quality standards.

The passage of California Senate Bill 375 (SB 375) in 2008 requires that an MPO prepare and adopt a Sustainable Communities Strategy (SCS) that sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce greenhouse gas emissions from automobiles and light duty trucks (Govt. Code §65080(b)(2)(B)). The SCS outlines certain land use growth strategies that provide for more integrated land use and transportation planning, and maximize transportation investments. The SCS is intended to provide a regional land use policy framework that local governments may consider and build upon.

Finally, the development of the RTP/SCS is subject to the California Environmental Quality Act (CEQA). Therefore, SCAG also prepares a Program Environmental Impact Report (PEIR) for the RTP/SCS that evaluates the potential environmental impacts associated with the Plan.

The acceptance of the 2016 RTP/SCS (or Plan) by the Federal Department of Transportation and the State is critical to our region. The mobility and economic consequences of failure to meet the state and federal requirements are outlined below.

### **Components of the 2016 RTP/SCS Plan**

Following the 3 C’s planning approach, the 2016 RTP/SCS continues with many of the policies included in SCAG’s current 2012-2035 RTP/SCS (2012 RTP/SCS), and provides an update of these policies relative to the new planning horizon year of 2040. Among other things, the 2016 RTP/SCS update must include, as required under federal law, an identification of the transportation facilities (including major roadways, transit, multimodal and intermodal facilities, and intermodal connectors) that should function as an integrated metropolitan transportation network, giving emphasis to those facilities that serve important national and regional transportation functions (23 USCA §134(i)(2)) et seq.).

The 2016 RTP/SCS must also include a financial plan that demonstrates how the adopted transportation plan can be implemented, indicates resources from public and private sources that are reasonably expected to be available to carry out the plan, and recommends any additional financing strategies for the needed projects and programs. The Plan must also include operational

and maintenance strategies related to the existing transportation facilities and an economic impact analysis. Finally, under California law, the region's SCS must identify existing and future land use patterns; consider statutory housing goals and objectives; identify areas to accommodate housing needs; consider resource areas and farmland; identify transportation needs and the planned transportation network; and set forth a future land use pattern to meet state greenhouse gas emission reduction targets.

### **Failure to Meet Federal and State Requirements**

Federal or state disapproval of the submitted 2016 RTP/SCS Plan could mean that many of the transportation projects contained within the Final Plan and approved by voters in the six (6) counties could be delayed. Delays would impact: congestion on the regional system, the regional economy, greenhouse gas emissions reductions, and air quality pollution reductions. In addition, disapproval by the State of the SCS could mean development of an alternative planning strategy to meet SCAG's greenhouse gas emissions reduction targets. The more detailed economic costs of delays is being further detailed by the SCAG economic experts retained to objectively analyze the draft 2016 RTP/SCS and will be made available at the subsequent Regional Council meeting.

### **Public Outreach To Date**

Public outreach has been integral to the development of the entire 2016 RTP/SCS. To ensure that the 2016 RTP/SCS was developed openly and inclusively, SCAG implemented a comprehensive public outreach and involvement program. This was based on a Public Participation Plan adopted by SCAG's Regional Council in April 2014. Specific public engagement strategies used during the development of the Draft 2016 RTP/SCS included:

- Developing materials for public outreach in a variety of formats to reach broad audiences, including a short video, fact sheets, surveys, power points and presentation poster boards.
- Centralizing RTP/SCS information on a new easy-to-use microsite, developed to be mobile/tablet friendly and compliant with the 1990 Americans with Disabilities Act.
- Supporting multiple committees, task forces and working groups made up of SCAG partners, stakeholders and interested groups to develop the key components of the Plan.
- Holding multiple public open houses before the release of the Draft 2016 RTP/SCS, to allow direct participation by interested parties.
- Announcing the schedule for the open houses through a wide variety of means, including community calendars, distributing flyers at local events and libraries, email newsletters, social media, and ethnic media.
- Seeking the assistance of transit agencies, stakeholder organizations, and their communication channels to maximize outreach opportunities.
- Conducting expanded and enhanced outreach activities for traditionally underrepresented and/or underserved groups through five specialized workshops and eight focus group sessions on environmental justice.

- Meeting with Native American tribes in the SCAG region on priorities and concerns related to the Draft Plan and PEIR.
- Evaluating public participation activities to continually improve the outreach process.
- Engaging local jurisdictions early in the development of the base demographic and land use data that is used in the technical analysis of the Plan, including meeting one-on-one with 99 percent of the 197 cities and counties in the SCAG Region.

The overall Draft Plan was developed with input from local jurisdictions, County Transportation Commissions (CTCs), tribal governments, other government agencies, non-profit organizations, businesses, labor, builders and other stakeholders throughout the region.

From past plan development cycles, SCAG had heard from many participants about the need for early engagement during the development of the Draft 2016 RTP/SCS. For members of the public, SCAG conducted public engagement activities between May 2015 and July 2015, with 23 open house events held across six counties. These events helped educate residents on the goals of the Plan, explore topics included in the Plan, and gather input on priorities with an electronic survey. Participants reviewed poster boards showing projected changes in population and demographics within their county and the region, and then were asked for their input on how the region could accommodate growth in a variety of areas. These included providing transportation options, improving public health, preserving natural lands and supporting economic opportunities.

Recognizing that not all members of the public could attend the open houses, SCAG provided an opportunity to participate virtually by providing the workshop materials and the online survey. Hundreds of Southern Californians participated online, and gave input on transit accessibility, transportation investments and other topics. A summary report from the survey was presented at a special Joint Meeting of SCAG's Regional Council and Policy Committees held on August 6, 2015, and this report will also be included in the Public Participation & Consultation Appendix released with the Draft 2016 RTP/SCS next month.

In addition to these outreach efforts, all regular and special meetings of SCAG's Transportation Committee; Community, Economic and Human Development Committee; Energy and Environment Committee; Legislative/Communications and Membership Committee; Executive Administration Committee; and Regional Council were publicly noticed, and opportunities for public comment were provided at each meeting. SCAG held monthly meetings of its Technical Working Group, which consisted of staff representatives of CTCs and subregions, among others, to seek technical input. SCAG also maintained ongoing communications with other state and local agencies such as the California Air Resources Board (ARB), the Strategic Growth Council, Caltrans, the Department of Finance, the Housing and Community Development Department, various air quality management districts, and other MPOs. Federally and state required interagency consultation was done through the monthly meetings of the Transportation Conformity Working Group and of the chief executive officers (CEOs) of the CTCs.

## **What Has Changed Since the 2012 RTP/SCS?**

Since SCAG's Regional Council adoption of the 2012 RTP/SCS, a number of new circumstances have arisen that have had an impact on the development of the Plan. These changed circumstances are summarized below.

- The Great Recession, which lasted from December 2007 through June 2009, caused massive job losses and had a devastating impact on our region's economic well-being. Now that the recession is behind us and our region has experienced a decline in unemployment and housing foreclosures, challenges still remain. While employment levels in the region have surpassed where we were in 2007 and real per capita income has increased, the region continues to struggle with a larger population base and stagnant wages. These factors have contributed to more people slipping into poverty.
- The region's demographics and housing market remain fluid and dynamic. The housing market has rebounded since the 2012 RTP/SCS was adopted, and the number of Millennials and empty nesters has continued to increase with many seeking smaller housing and a more walkable lifestyle. For many households in the region, minimizing transportation and housing costs remains a priority.
- A new surface transportation funding and authorization bill entitled "Moving Ahead for Progress in the 21st Century Act" (MAP-21) was signed into law by President Obama on July 6, 2012. MAP-21 emphasized performance-based regional transportation planning. Continuing federal budget deficits cast a long shadow over the re-authorization of MAP-21 or a new transportation bill. Long-term uncertainty of federal funding will put even greater pressure on local sources to solve our transportation challenges.
- Since 2012, California's state government has been exploring viable alternatives to the state gas tax. In 2014, Governor Brown signed into law Senate Bill 1077 (SB 1077, DeSaulnier), the "Vehicles: Road Usage Charge Pilot Program." This program requires the State Transportation Agency (CalSTA) to evaluate a new funding system for transportation — a road charge — to replace the state gas tax. California has convened the Road Charge Technical Advisory Committee, comprised of representatives from government, private industry and academia to offer recommendations on a road charge pilot program, which must be initiated by January 1, 2017.
- California's legislature passed several bills to help local jurisdictions and MPOs implement SB 375, including:
  - SB 535: Identifies investment in disadvantaged communities from Cap & Trade revenues;
  - SB 743: Streamlines the environmental clearance process for infill projects and Transit Oriented Development (TOD);
  - SB 628: Creates Enhanced Infrastructure Financing Districts (EIFD);
  - AB 93: Relates to taxation and economic development; and

- AB 2: Authorizes certain local agencies to form community revitalization authorities within community revitalization and investment areas to carry out provisions of the Community Redevelopment Law for purposes related to, among other things, infrastructure, affordable housing, and economic revitalization.
- The rapid advancement of new technologies – such as real-time traveler information, on-demand shared mobility services enabled by smartphone applications or ridesourcing, car share and bike share – is influencing how households travel and their choices about single- and multiple-vehicle ownership. These mobility innovations are encouraging more efficient transportation choices and land development patterns, which help public agencies manage the multi-modal transportation system more efficiently.
- There is a continuing emphasis on reducing greenhouse gas emissions, even after the adoption of SB 375. On April 29, 2015, Governor Brown issued Executive Order B-30-15, which establishes a California greenhouse gas reduction target of 40 percent (below 1990 levels) by 2030. Executive Order B-30-15 also reiterates the greenhouse gas emissions emission reduction target of 80 percent below 1990 levels as established in Governor Schwarzenegger’s 2005 Executive Order S-03-05. Because the transportation sector is the largest contributor to California’s greenhouse gas emissions (more than 36 percent), SCAG anticipates updated and more stringent regional emissions reduction targets.

The 2016 RTP/SCS was developed considering these new realities and was shaped by our outreach. The Plan envisions vibrant, livable communities that are healthy and safe, and which offer many transportation options that provide timely access to schools, jobs, services, health care and other basic needs. These communities will be more conducive to walking and bicycling, and offer residents improved access to parks and natural lands. Collectively, these communities will support opportunities for business, investment and employment, fueling a more prosperous economy. This vision recognizes the region’s tremendous diversity, and that one-size solutions are not practical or feasible.

## **B. OUR PROGRESS**

Since the 2012 RTP/SCS was adopted, the region has made progress in many areas, including the following:

### **Transit**

- The total amount of transit service offered has reached pre-recessionary levels.
- The region exceeded 20 million annual service hours for the first time since the recession, according to preliminary projections using unaudited data.
- Gains are mainly due to growth in rail service hours (up 63 percent over ten years) and demand response growth (up 29 percent over ten years).
- These increases are making up for a decrease in total fixed route bus hours (down 3 percent over ten years).



- The region has made significant progress in completing capital projects for transit:
  - Metro Orange Line Extension
  - Metro Expo Line
  - Omnitrans E street sbX
  - Brawley Transit Center
- In addition, there are currently five major Metro Rail projects under construction in Los Angeles County:
  - Purple Line Phase 1 to Wilshire/La Cienega
  - Crenshaw/LAX Transit Corridor
  - Regional Connector
  - Gold Line Foothill Extension Phase 1 to Azusa
  - Exposition Transit Corridor Phase 2 to Santa Monica

## **Passenger Rail**

- The Amtrak Pacific Surfliner is now being managed locally by the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Agency.
- Metrolink is nearing completion on the Perris Valley Line between downtown Riverside and South Perris, the first major expansion of the Metrolink system since the mid-1990s.
- Metrolink also became the first commuter railroad in the nation to implement Positive Train Control and purchase fuel-efficient, low-emission Tier IV locomotives.
- The California High-Speed Rail broke ground in the San Joaquin Valley last year, and it's on track to begin service from Merced to Bob Hope Burbank Airport in 2022, and reach Los Angeles Union Station in 2028.
- The region has made significant progress in completing capital projects for passenger rail:
  - Anaheim Regional Intermodal Transportation Center (ARTIC)
  - Burbank Bob Hope Airport Regional Intermodal Transportation Center
  - Burbank Bob Hope Airport Hollywood Way Rail Station
  - Downtown San Bernardino Transit Center
  - Vincent Grade/Acton Siding and Platform
  - Southern California High-Speed Rail MOU Projects

## **Highways**

- The expansion of highways in the region has slowed down considerably over the last decade, due to land, financial and environmental constraints. Nevertheless, several projects have been completed since the 2012 RTP/SCS was adopted to improve access and close critical gaps and congestion chokepoints in the regional network, including:
  - Interstate 5 South Corridor Project in Los Angeles County
  - Interstate 10 westbound widening in Redlands and Yucaipa, from Ford Street to Live Oak Canyon Road in San Bernardino County
  - Interstate 215 Bi-County Project in Riverside and San Bernardino Counties
  - State Route 57 land widening from State Route-91 to Lambert Road and between Katella Avenue and Lincoln Avenue in Orange County

- State Route 91 has several projects that have been completed since 2012 or are currently in construction. These include:
  - State Route 241 and State Route 71 in Orange and Riverside Counties
  - The recently initiated westbound lane addition between State Route 241 and the Riverside County Line
  - Widening projects in both directions have also begun between State Route-55 and State Route 241
- State Route 138 (Pearblossom Highway) Corridor Improvement Projects in North Los Angeles County

## **Regional High-Occupancy Vehicle (HOV) and Express Lane Network**

- The demands on our region's highways continue to exceed available capacity during peak periods, but over the past few years several critical projects to close HOV gaps have been completed. The result has been 27 more miles of regional HOV lanes, including:
  - Interstate-405 Sepulveda Pass Improvements Project
  - Interstate-10, between Interstate-605 and State Route-57
  - Interstate-5 South Corridor Project
  - Interstate-215 Bi-County Project between San Bernardino and Riverside Counties
  - West County Connector Project within Orange County
- To provide people with greater reliability on travel times and more route choices, the region is developing a Regional Express Lane Network. Express Lanes are appropriately priced to reflect demand and are capable of outperforming non-priced lanes in terms of throughput, especially during congested periods. Specific milestones in the effort to enhance the regional network of Express Lanes since 2012 include:
  - Express Lanes in Los Angeles County along Interstate 10 and Interstate 110 were made permanent in 2014, following a one-year demonstration.
  - The Riverside County Transportation Commission (RCTC) in 2014 initiated construction of Express Lanes on State Route 91 extending eastward from the Orange County line to Interstate 15.
  - The San Bernardino Associated Governments (SANBAG) in 2014 selected Express Lanes along Interstate 10, from San Antonio Avenue to Ford Street, as the locally preferred alternative.
  - The Orange County Transportation Authority (OCTA) Board in 2015 voted to take the lead on construction of Express Lanes along Interstate 405, from Interstate 605 to State Route 73.

## Active Transportation

- Our region is making steady progress in encouraging more people to embrace active transportation. Progress since 2012 has included:
  - As a percentage share of all trips, bicycling has increased more than 70 percent since 2007 to 1.12 percent, while walking has remained steady at 17 percent after several years of growth.
  - Nearly 37 percent of all trips less than one mile and 18 percent of all trips less than three miles are made via active transportation. Most pedestrian trips are less than half a mile and take about ten minutes. Most bicycling trips, meanwhile, cover less than two miles.
  - More than 500 miles of new bikeways have been constructed in the region.
  - About \$350 million in Active Transportation investments are underway, leveraging close to \$200 million in grants awarded in the first cycle of the California Active Transportation Program (ATP).
  - Safety and encouragement programs, including the rollout of the SCAG-led “Go Human” campaign, are providing the education, training and encouragement to make walking and biking safe and attractive options for getting to the places we need to go.

## Goods Movement

- Reliable freight transportation infrastructure is essential to support our regional economy. The region continues to make substantial progress toward completing several major capital initiatives to support freight transportation, while also demonstrating significant improvement in reducing harmful emissions generated by goods movement sources. Progress since 2012 has included:
  - San Pedro Bay Ports Clean Air Action Program (CAAP): With the first CAAP completed in 2006, a second CAAP completed in 2010, and a third underway, the Ports have initiated clean air improvements for all goods movement sources with levels of diesel particulate matter dropping by 82 percent, oxides of nitrogen by 54 percent, and oxides of sulfur by 90 percent.
  - San Pedro Bay Ports Clean Truck Program: A key component of the CAAP is the Clean Truck Program. As of January 1, 2012, all port trucks meet the 2007 Federal Clean Truck Emissions Standards and have resulted in 80 percent reduction in port truck emissions.
  - Advanced Technology Demonstration Projects: The South Coast Air Quality Management District (SCAQMD), the California Energy Commission (CEC), the U.S. EPA, and several regional agency partners have contributed about \$13.5 million to construct and demonstrate a one-mile Overhead Catenary System (OCS) in the City of Carson, and to develop prototype trucks for assessing compatibility with the OCS.
  - The Transportation Investment Generating Economic Recovery (TIGER) Grant for State Route (SR) 57/60 Confluence Freight Corridor Project: In 2014, the City of Industry and the Los Angeles County Metropolitan Transportation Authority

(LACMTA), were awarded a TIGER Grant to construct the SR 57/60 Confluence Freight Corridor Project.

- Construction of Gerald Desmond Bridge Initiated: The Gerald Desmond Bridge has been designated as a National Highway System Intermodal Connector Route and part of the Strategic Highway Network.
- South Wilmington Grade Separation: This project was completed in the spring of 2015.
- Grade Separations: Seventy-one grade separation projects throughout the SCAG region were identified for inclusion in the financially constrained 2012 RTP/SCS. To date, 14 grade separation projects were completed and are now open to traffic. Twenty-four grade separation projects are now under construction and should be completed and open to traffic in late 2015 to 2016.
- Double Tracking of the Union Pacific (UP) Alhambra Subdivision Initiated: 5.8 miles between South Fontana and Reservoir have been double-tracked, and three new run-through tracks at Montclair have been constructed.
- Colton Crossing Completed: Completed in August 2013, this project physically separated two Class I railroads with an elevated 1.4-mile-long overpass that lifts Union Pacific (UP) trains traveling east-west. It also removed the chokepoint that existed where Burlington Northern Santa Fe (BNSF) and UP mainlines crossed tracks in Colton.

## **Sustainability Implementation**

- Planning for sustainable growth has become increasingly important since 2012. In addition to sustainability efforts undertaken independently by local jurisdictions, to help the region grow more sustainably, SCAG administers a Sustainability Planning Grant Program (formerly the Compass Blueprint Program) that provides funding to member agencies to help them link local land use plans to the 2012 RTP/SCS goals. Since adoption of the 2012 RTP/SCS, 70 planning projects have been funded, totaling an investment of \$10 million.
  - Specific progress by member jurisdictions since 2012 includes: updating outmoded general plans and zoning codes; completing specific plans for town centers and Transit Oriented Development; implementing sustainability policies; and adopting municipal climate action plans.
  - Thirty of the 191 cities in the SCAG region reported updating their general plans since 2012, and another 42 cities have general plan updates pending.
  - Fifty-four percent of all the adopted and pending general plans include planning for TOD, 55 percent plan to concentrate key destinations, and 76 percent include policies encouraging infill development.
  
- Protecting water quality and conserving energy are also priorities for member jurisdictions. Progress in these areas include:



- Ninety-one percent of cities have adopted water-related policies, and 85 percent adopted measures to address water quality.
- Eight-six percent of cities have implemented community energy efficiency policies, with 80 percent of those cities implementing municipal energy efficiency policies and 76 percent implementing renewable energy policies.
- Of the region's 191 cities, 189 have completed sustainability components, with 184 cities implementing at least 10 or more policies or programs and 10 cities implementing 20 or more policies or programs. This last group includes Santa Monica, Pasadena and Pomona.

## **Affordable Housing**

- Recent funding developments suggest that future progress in producing affordable housing is achievable in the SCAG region. Progress since 2012 has included:
  - In spring 2015, California's Affordable Housing Sustainable Communities (AHSC) program awarded its first round of funding to applicants after a competitive grant process. The AHSC program, which is appropriated \$130 million by the Greenhouse Gas Reduction Fund ("Cap & Trade"), provides an opportunity for eligible projects to receive funding to build affordable housing.
  - Of \$122 million available statewide, \$27.5 million was awarded to 10 projects in the SCAG region, all of which were designated for communities defined as disadvantaged.
  - Eight-hundred forty-two (842) affordable units, including 294 units designated for households with an income of 30 percent or less of the area median income, will be produced with this funding.
  - Recent State legislation, such as Senate Bill 628 (Beall) and AB 2 (Alejo), provide jurisdictions an opportunity to establish a funding source to develop affordable housing and supportive infrastructure and amenities.

## **Public Health**

- Within each county of the SCAG region, there has also been a groundswell of support for policies and projects that support improved public health outcomes related to the built environment. These actions have been driven in part by increased interest in resources at the national and state-level to analyze health impacts. Progress within the SCAG region since 2012 has included:
  - The Los Angeles County Department of Public Health and the Department of City Planning are developing a *Health Atlas*, which highlights health disparities between neighborhoods.
  - In Riverside County, the *Healthy Riverside County Initiative* is working to have healthy cities resolutions adopted by a minimum of 15 cities.
  - The County of San Bernardino has recently completed the *Community Vital Signs Initiative*, which envisions a "county where a commitment to optimizing health and wellness is embedded in all decisions by residents, organizations, and government."

- Other projects include active transportation planning such as the Orange County Loop, the Imperial County Safe Routes to School Master Plan, and the Healthy Ventura County Initiative.

## **C. OUR CHALLENGES AND OPPORTUNITIES**

The RTP/SCS is updated every four years to reflect the most current information and conditions per federal and state requirements. Every RTP/SCS update describes a number of challenges and opportunities. The challenges and opportunities we face with respect to the Draft 2016 RTP/SCS are described briefly in this section.

### ***2016 RTP/SCS Growth Forecast***

According to the 2015 population estimates from the California Department of Finance (DOF), the population of the Southern California region is 18.8 million, which represents 5.8 percent of the 325 million people of the U.S., and over 48 percent of California's population. With the region's land area of 38,000 square miles, the region's population density is now 490 persons per square mile. The Southern California region is the 5th highest in population among states in the nation, behind the state of Florida, and the second largest combined statistical area (CSA) in the nation behind the New York CSA.

The recent population growth of the region from 2010-2015 is an extension of the existing slow growth pattern observed during the 2000-2010 period. Although the regional economy has recovered from the Great Recession by adding 800,000 jobs, the regional population continues to show slow growth. The annual average growth rate for the 2010-2015 period was only 0.7 percent, which was lower than the 0.9 percent growth rate of the 2000-2010 period. California and the U.S. also experienced slow growth over the last 15 years, which will continue over the next 25 years. The annual average growth rate of the SCAG region, California, and the U.S. through 2040 is consistent with or lower than the growth rate for the 2010-2015 period.

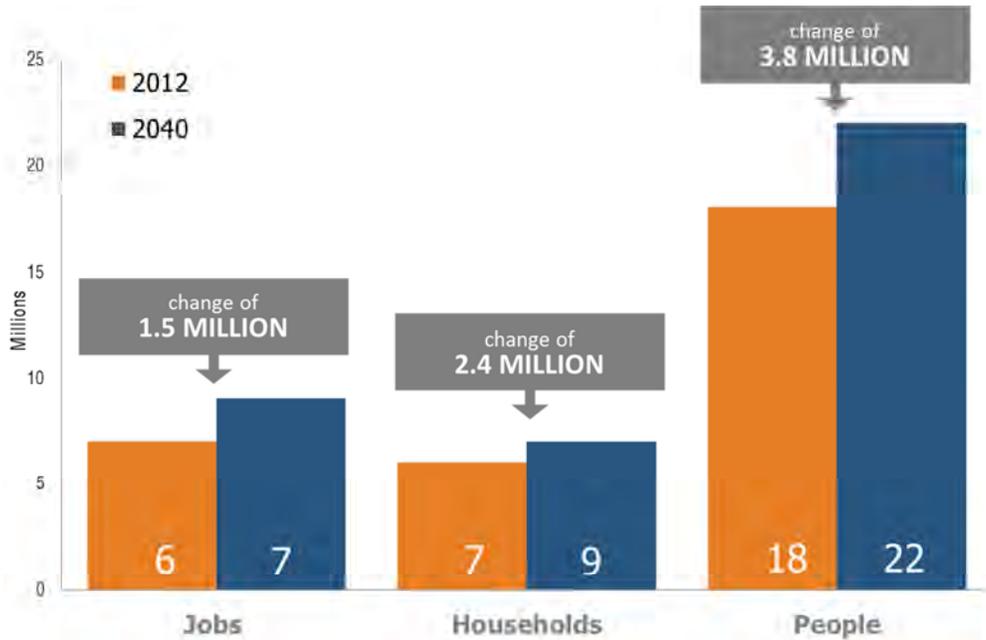
SCAG projects that the region will add 3.8 million residents, 1.5 million households, and 2.4 million jobs from 2012 through 2040. Population and households are projected to grow at the annual average growth rate of 0.7 percent during the same period, while employment grows faster at 2 percent until 2020, and then stabilizes at 0.7 percent. The region's population is projected to grow more slowly than that of previous years. The slow growth pattern is occurring not only in the SCAG region, but is also observed from U.S. and California population projections by the U.S. Census Bureau and California DOF, respectively.

# REPORT

## Draft SCAG Region Growth Forecast for the 2016 RTP/SCS

County	Population 2012	Population 2040	Households 2012	Households 2040	Employment 2012	Employment 2040
Imperial	180,000	282,000	49,000	92,000	59,000	125,000
Los Angeles	9,923,000	11,514,000	3,257,000	3,946,000	4,246,000	5,226,000
Orange	3,072,000	3,461,000	999,000	1,152,000	1,526,000	1,899,000
Riverside	2,245,000	3,168,000	694,000	1,049,000	617,000	1,175,000
San Bernardino	2,068,000	2,731,000	615,000	854,000	659,000	1,028,000
Ventura	835,000	966,000	269,000	312,000	332,000	420,000
SCAG	18,322,000	22,122,000	5,885,000	7,406,000	7,440,000	9,872,000

Note: Rounded to the nearest 1,000.  
 Reflecting local input as of July 31, 2015.

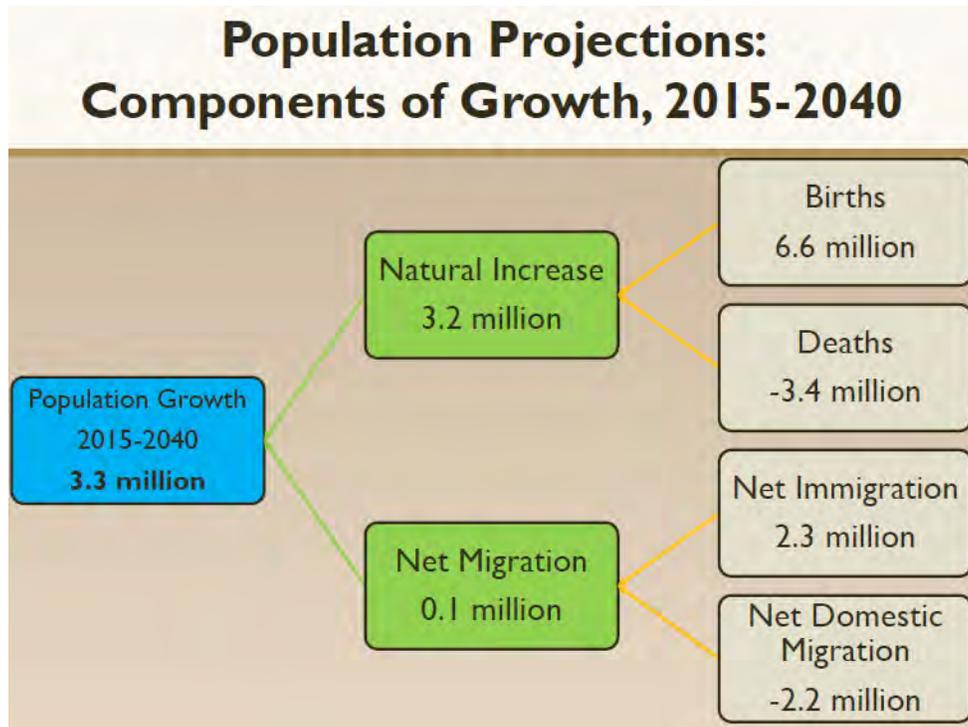


### Changing Demographics and an Aging Population

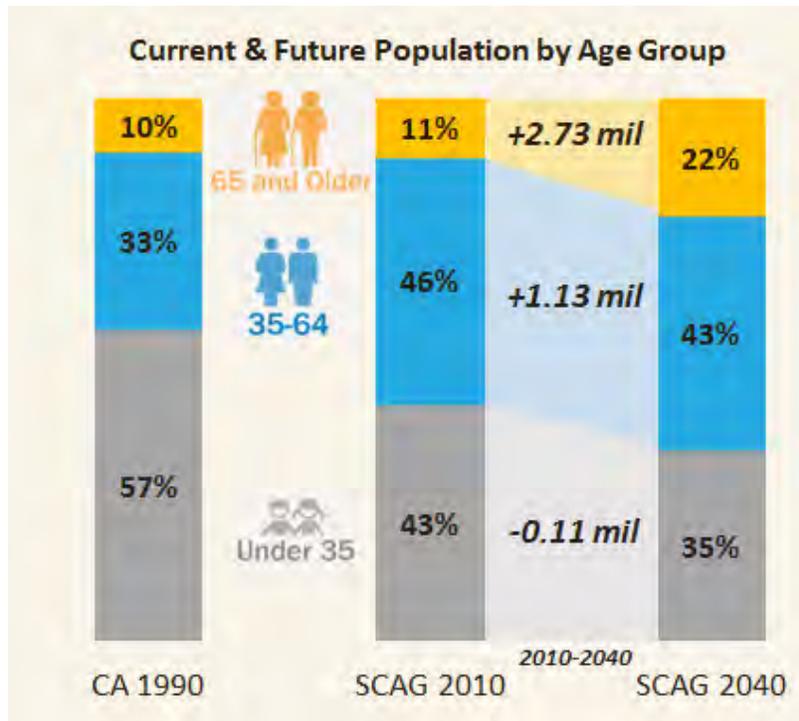
We expect the region to grow differently than in the past. Before 1990, population growth was driven largely by both natural increase and migration. Since 1990, however, any gains from immigration have been offset by domestic migration losses and Southern California’s population



growth has been fueled mostly by a natural increase in births – despite declining fertility rates. This continuing trend is expected to account for most of the Southern California’s future population growth by 2040. Our population growth will place additional strain on all of our systems and resources.



Notably, the median age of our region’s overall population is expected to rise, with increasing shares of senior citizens. As the Baby Boomer generation continues to age and live longer, our region will experience a significant increase in its senior population – a trend expected nationwide. Today, people who are 65 and older represent 12 percent of the region’s total population. But by 2040, the number of seniors will increase to 22 percent – about one in five people in our region. This demographic shift will have major impacts on the locations and types of housing we build and our plan for transportation. A key challenge for the region will be to help seniors maintain their independence and age in their homes and communities. And as the number and share of seniors are projected to increase, the percentage share of younger people of working age is expected to fall. The ratio of people over the age of 65 to people of working age (15 to 64) is expected to increase to 28 seniors per 100 working age residents by 2040, compared with a 16 to 100 ratio calculated for 2010. This means that our region could face a labor shortage, and a subsequent reduction in tax revenues.



### ***Transportation System Maintenance & Preservation***

The region’s aging transportation system (encompassing roads, bridges, bus and rail transit, and freight rail) is facing increasing preservation costs in the face of diminishing revenues. If we continue on our current path of serious underfunding of system preservation, the cost of bringing our system back to a reasonable state of good repair would grow exponentially. Based upon preliminary estimates, the cost to maintain our transportation system at current conditions, which is far from the ideal, will be in the tens of billions over and beyond currently committed funds. Policy leaders must collectively decide what investment level to use to maintain the region’s existing transportation facilities and how to fund the significant revenue gap.

### ***Financing Transportation***

Perhaps our most critical challenge is securing funds for a transportation system that promotes a more sustainable future. The cost of a multimodal transportation system that will serve the region’s projected growth in population, employment, and demand for travel surpasses the projected revenues expected from the gas tax – our historic source of transportation funding. Gas tax revenues, in fact, are going down and will continue their downward trajectory as fuel efficiency improves and the number of alternative-fuel vehicles continues to grow. Furthermore, state and federal gas taxes have not kept up with inflation; the latest adjustments occurred more than two decades ago. To backfill limited state and federal gas tax revenues, our region has continued to rely on local revenues to meet transportation needs. In fact, 71 percent of SCAG’s core revenues are local revenues. Seven sales tax measures have been adopted throughout the region since the 1980s, so the burden of raising tax dollars has shifted significantly to local agencies. In reality, we need a stronger state and federal commitment to raising tax dollars for



the Southern California transportation system – given its prominence and importance to the state and national economy, particularly when it comes to the movement of goods.

### ***Moving Goods Efficiently in a Huge and Complex Region***

The smooth and efficient movement of goods is critical to our regional economy, particularly as our region continues to recover from the recession. A number of key trends and drivers are expected to impact our region’s goods movement system, some of which include:

- **Population and Employment Growth:** Our region’s population and employment growth is expected to fuel consumer demand for products and in turn, the goods movement services that provide them. This increased demand will drive stronger growth in freight traffic on already constrained highways and rail lines. Levels of harmful emissions also will rise.
- **Continued Growth in International Trade:** The San Pedro Bay Ports anticipate cargo volumes to grow to 36 million containers by 2040. This growth will place further demands on marine terminal facilities, highway connections, and on-dock and off-dock intermodal terminals. If port-related rail traffic and commuter demands are to be met, main line rail capacity improvements will be required as well.
- **Logistics Epicenter:** Southern California is the nation’s epicenter for distribution and logistics activity, with close to 1.2 million square feet of facility space for warehousing, distribution, cold storage and truck terminals.<sup>1</sup> By 2040, the region may experience a shortfall of more than 527 million square feet in warehouse space, relative to demand.<sup>2</sup>
- **Air Quality Issues:** Goods movement emissions contribute to regional air pollution problems (NO<sub>x</sub> and PM<sub>2.5</sub>), and they pose public health challenges. Emissions generated by the movement of goods are being reduced through efforts such as the San Pedro Bay Ports Clean Air Action Plan, as well as regulations such as the statewide Heavy Duty Truck and Bus Rule. But these reductions are unlikely to be sufficient to meet regional air quality goals.

### ***Affordability, Gentrification and Displacement***

Affordable housing throughout Southern California remains a very challenging issue, particularly as economy continues to recover and grow. Housing prices are rising steadily, and affordability is declining. While residential construction has improved notably since the recession, the production of affordable housing has not kept pace with the demand for it. As our region builds communities that are more compact and more transit-oriented, regional greenhouse gas emissions are anticipated to decline, and residents from a variety of income levels will continue to make housing choices that allow them to use an increasing number of mobility options. Certainly, the overall quality of life will increase for many people. However, people

<sup>1</sup> CoStar Realty Information, Inc. [www.costar.com](http://www.costar.com), based on November 2014 data downloads

<sup>2</sup> Industrial Warehousing in the SCAG Region Study, Task 4 Warehousing Demand Forecast

from low-income communities near new transit infrastructure may face displacement as they are no longer able to afford to live in the area.

### ***Improving Public Health***

Today, many people in our region suffer from poor health due to chronic diseases related to poor air quality and physical inactivity. Chronic diseases including heart disease, stroke, cancer, chronic lower respiratory disease and diabetes are responsible for 72 percent of all deaths in our region. Millions of more people live with chronic diseases every day. Within our region, more than 60 percent of residents are overweight or obese, more than 8 percent have diabetes, 27 percent suffer from hypertension, and more than 12 percent suffer from asthma. Health care costs resulting from being physical inactive, obese and overweight, and from asthma cost our Southern California region billions of dollars annually in medical expenses, lost life and lost productivity, research shows.

How a neighborhood is laid out and linked to transportation options can shape the lifestyles that people have – how physically active they are and how safe their everyday lives can be, a growing body of evidence shows. As a result, regional planning for land use and transportation across the U.S. has increasingly incorporated strategies to improve public health. One of the challenges that SCAG faces as it strives to improve public health is the sheer size and diversity of our region. Public health varies widely, by geographic location, by income and by race. There is no one size fits all approach to meeting this complex challenge. It requires flexibility and creativity to ensure that initiatives are effective in both rural and urban areas.

### ***Confronting a Changing Environment***

The consequences of climate change already are impacting Southern California, and more intensified changes are expected. Drought, water shortages and an agriculture industry in crisis have become hard realities in recent years. Climate change is transforming the state's natural habitats and overall biodiversity. Continued changes are expected to impact coastlines as sea levels rise and storm surges grow more destructive. Forestry will continue to be impacted by drought and wildfire. Climate change also will impact how we use energy and the quality of public health. Our transportation system will experience new challenges as well as the global and regional climate continues to change.

Researchers predict that both coastal and inland Southern California will see many more days of extreme heat, with temperatures exceeding 95 degrees Fahrenheit. This is expected to increase heat-related mortality, lower labor productivity, and boost demands for energy. Meanwhile, changing patterns of rain and snowfall – including the amount, frequency and intensity of precipitation across the state – will have serious long-term impacts on the supply and quality of water in Southern California, as well as how the state manages it. It is clear that our region needs to prepare for these projected challenges, and a big part of that effort is to make individual communities more resilient to the consequences of climate change, as well as the region as a whole. Without advance planning and effective action, the consequences of climate change will negatively impact our transportation system, our economy and our everyday lives.

## *Mobility Innovations*

Since SCAG adopted the 2012 RTP/SCS, technology and innovation have emerged as major themes of the 2016 RTP/SCS. Technology as a concept is a very broad topic. The term has myriad connotations and encompasses products such as smart phones and electric cars; advancements in software development such as real-time travel information; and new service paradigms such as ride sourcing (e.g. Lyft and Uber) and peer-to-peer car sharing. Some of these so-called “new” concepts have actually been around for a long time, but only recently have they scaled up because of technological innovations. For example, car sharing and bike sharing concepts have been in development since the 1980s, but only in recent years has the ubiquity of cellular phones with Internet access, precise geographic mapping, and the ability to instantly approve payments between users and providers made these systems more useful to a wider audience.

The 2016 RTP/SCS uses the term “mobility innovations” to characterize the new technologies that help us move about the region. The Plan includes policies and models the market growth of three key new mobility innovations: Zero Emissions Vehicles, Neighborhood Electric Vehicles, and Car sharing/Ridesourcing.

## **D. SCENARIO PLANNING**

To develop a preferred scenario for the region at 2040, SCAG first generated four preliminary “sketch scenarios” for our region’s future – each one representing a different vision for land use and transportation in 2040. More specifically, each scenario was designed to explore and convey the impact of where the region would grow, to what extent the growth would be focused within existing cities and towns, and how it would grow—the shape and style of the neighborhoods and transportation systems that would shape growth over the period. The following are descriptions of the four scenarios that were presented to the Regional Council, stakeholders, and at workshops throughout the region.

### **Scenario 1: Trend**

Scenario 1 was a base case scenario that represented “business-as-usual” growth to 2040, based on the region’s population, household and employment trends. By “base case” SCAG meant and included: all existing regionally significant highway and transit projects; all ongoing Transportation Demand Management (TDM) and Transportation System Management (TSM) activities; and all projects which are undergoing right-of-way acquisitions, are currently under construction, have completed the federal environmental process (NEPA), or will be in the first two years of the previously conforming Federal Transportation Improvement Plan (FTIP). This scenario served as a yardstick to compare the three other scenarios for development of the Draft Plan. Growth and land use under the baseline scenario followed previous trends. Significant transportation investments or new policies regarding land use, housing or transportation were not introduced.

## **Scenario 2: 2012 RTP/SCS Updated with Local Inputs**

Scenario 2 updated SCAG’s established 2012 RTP/SCS with inputs from local jurisdictions, and included the adopted Plan’s broad suite of land use and transportation strategies, investments and policies. Scenario 2 envisioned future regional growth well-coordinated with the transportation system improvements of the approved 2012 RTP/SCS, as well as anticipated new transportation projects planned by the region’s CTCs and transit providers. This scenario reflected land use patterns as depicted by local general plan land use policies and refined by cities through SCAG’s extensive bottom-up local review input process and outreach effort.

## **Scenario 3 (Policy A): Making Further Progress**

Scenario 3 (also known as “Policy A”) builds upon the concepts in Scenario 2 and incorporated additional best practices to increase transportation mode choice, reduce personal automobile dependency and further improve air quality. For example, this scenario expanded regional investment in transit integration strategies to increase transit ridership by making it quicker and easier to complete a transit trip. This scenario assumed that First/Last Mile improvements will be made at all fixed-guideway transit stations (i.e., commuter rail, subway, light-rail and bus rapid transit (BRT) stations) across the region. Scenario 3 included arterial roadways where jurisdictions are planning for some combination of high-quality bus service, higher density residential and employment at key intersections, and increased opportunities for active transportation. Scenario 3 also included a set of policies and complete street investments aimed at encouraging the replacement of the automobile for trips less than four miles in length with walking, bicycling, and slow-speed electric vehicles. Scenario 3 incorporated new technology and innovations such as bikeshare and car sharing, and assumed a well substantiated growth of these shared mobility services in urban areas predominantly through private sector actions. This scenario built upon SCAG policies from the 2012 RTP/SCS, and allowed for more future growth in walkable, mixed-use communities and in High Quality Transit Areas (HQTAs).

## **Scenario 4 (Policy B): Exceeding Expectations**

Scenario 4 (or “Policy B”) builds upon Scenario 3, and represented an ambitious and holistic slate of public policies and investments. This scenario was intended to determine which policies would be required to achieve maximum per-capita greenhouse gas emissions reductions, in order to inform a comprehensive discussion during outreach and deliberation. Scenario 4 assumed improved bus transit services throughout identified HQTAs, as well as land use policies that encourage density along those routes. There was added emphasis on higher density residential and mixed-use infill along arterials with high-quality bus service, and more robust active transportation infrastructure. This scenario directed new growth away from undeveloped high-quality habitat areas to promote resource conservation, and it assumed no new residential growth in areas vulnerable to future sea level rise. Scenario 4 included a mix of housing options, with even more focus on infill development in towns and urban centers. Multifamily development in HQTAs was emphasized throughout the region.

The scope of these four regional growth scenarios, which were developed in consultation with the CEHD Committee and the SCAG’s Technical Working Group (TWG), evolved throughout the first five months of 2015. Using local population, household, and employment growth

projections, these scenarios explored a range of potential regional development patterns using myriad land use and transportation inputs. In an effort to facilitate understanding of the impacts for policymakers and for the general public, a variety of scenario impacts were considered including land, energy, and water consumption; air quality; and household costs. Based on policy direction as well as an extensive analysis of these scenarios using SCAG's Regional Travel Demand Model (RTDM) and Scenario Planning Model (SPM), and considering the substantial feedback received during the public input process, a Draft Policy Growth Forecast (PGF) was developed utilizing elements of all scenarios that demonstrates progress over the 2012 RTP/SCS. Therefore, the strategies, policies and investments represented by the Draft PGF alternative will be documented as the Draft 2016 RTP/SCS.

The Draft PGF envisions future regional growth that is well coordinated with the transportation system improvements of the approved in the previous 2012 RTP/SCS, as well as anticipated new transportation projects planned by the region's CTCs and transit providers. It also incorporates best practices for increasing transportation choices; reducing our dependence on personal automobiles; allowing future growth in walkable, mixed-use communities and in HQTAs; and further improving air quality. The technical details associated with the scenario analysis work will be fully disclosed in the associated technical appendices to the Draft 2016 RTP/SCS.

## **E. OUR STRATEGIES FOR TRANSPORTATION AND LAND USE**

Serving as an MPO, Regional Transportation Planning Agency and Council of Governments, SCAG has an essential responsibility to develop a Draft 2016 RTP/SCS that is dedicated to detailing recommended regional transportation investments and strategies. However, SCAG also recognizes that the region's transportation network and land uses must be well integrated if we are to ensure that our region grows in ways that enhance our mobility, sustainability, and quality of life. The Draft 2016 RTP/SCS makes a concerted effort to integrate the two, so that we can develop into an even more sustainable region over the coming decades. Accordingly, this staff report reviews regional strategies for growth and land use that set the context for a comprehensive review of the agency's plans for the region's transportation system.

### **Land Use Strategies**

The Draft 2016 RTP/SCS builds upon the 2008 Advisory Land Use Policies in the 2012 RTP/SCS. These foundational policies have guided the development of land use strategies for the SCS:

- Identify regional strategic areas for infill and investment;
- Structure the plan on a three-tiered<sup>3</sup> system of centers development;
- Develop "Complete Communities";

---

<sup>3</sup> "Identify strategic centers based on a three-tiered system of existing, planned, and potential, relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment." A more detailed description of these strategies and policies can be found on pages 90-92 of SCAG's 2008 Regional Transportation Plan, which was adopted in May 2008.

- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat;
- Incorporate local input and feedback on future growth;

In addition, the Draft 2016 RTP/SCS is based upon the guiding principles and framework of the Draft PGF that were reviewed and approved by the CEHD Committee in October 2015. Consistent with the scenario development process and workshop feedback, SCAG developed the Draft PGF to serve as the foundation for the 2016 RTP/SCS, and specifically, to serve as the preferred regional growth scenario to be incorporated as part of the region's SCS. The Draft PGF maintains local input-based jurisdictional growth totals, along with targeted growth in opportunity areas that are well served by transit and are conducive to successful mixed-use and higher density housing in the future (based on future transit investments and recent construction trends for similar developments).

SCAG staff conducted and completed the intensive local review and input process of the Draft PGF between June 24 to the end of July 2015. To ensure the greatest degree of accuracy and expediency, staff worked with our local partners to incorporate all of the feedback provided during the review period. Recommended revisions specifically addressed development agreements, entitlements, and projects that are currently under development or were recently completed. In addition, the Draft PGF with these technical corrections was sent out to all the local jurisdictions who provided input by July 31<sup>st</sup> to ensure that revisions were appropriately reflected in the revised data set. This entire technical revision process was completed on September 16, 2015. Any input received about the Draft PGF after the July 31 deadline will be incorporated before the adoption of Final 2016 RTP/SCS to be presented to the Regional Council in April 2016.

The following guiding principles were approved by the CEHD Committee and serve as the basis for developing the Draft PGF:

- Principle #1: The Draft PGF for the 2016 RTP/SCS shall be adopted by the Regional Council at the jurisdictional level, thus directly reflecting the population, household and employment growth projections derived from the local input and previously reviewed and approved by SCAG's local jurisdictions. The PGF maintains these projected jurisdictional growth totals, meaning future growth is not reallocated from one local jurisdiction to another.
- Principle #2: The Draft PGF at the Transportation Analysis Zone (TAZ) level is controlled to be within the density ranges<sup>4</sup> of local general plans or input received from local jurisdictions in this most recent round of review.

---

<sup>4</sup> With the exception of 6% of TAZs which have an average density below the density range of local general plans.

- Principle #3: For the purpose of determining consistency for CEQA streamlining, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS.
- Principle #4: TAZ level data or any data at a geography smaller than the jurisdictional level is included in the Draft PGF only to conduct the required modeling analysis and is therefore, only advisory and non-binding because SCAG's sub-jurisdictional forecasts are not to be adopted as part of the 2016 RTP/SCS. After SCAG's adoption of the PGF at the jurisdictional level, the TAZ level data may be used by jurisdictions in local planning as it deems appropriate and there is no obligation by a jurisdiction to change its land use policies, General Plan, or regulations to be consistent with the RTP/SCS. SCAG staff plans to monitor the use of this data after the adoption of the RTP/SCS to encourage appropriate use.
- Principle #5: SCAG staff continues to communicate with other agencies who use SCAG sub-jurisdictional level data to ensure that the "advisory & non-binding" nature of the dataset is appropriately maintained.

Anticipated outcomes and benefits of the Draft PGF include reduced land consumption; improved air quality and physical fitness; increased shared mobility; natural habitat preservation; enhanced energy and water conservation; more strategic transportation infrastructure expenditures; and enhanced access to Cap & Trade resources. Ultimately, the Draft PGF will integrate regional land use strategies with transportation investments to significantly reduce vehicle miles traveled (VMT) and result in cleaner air by increasing transit ridership, increasing walking and biking, and reducing the length of auto trips. The Draft Policy Growth Forecast of population, employment and household at jurisdictional level is included as an **Attachment** to this staff report.

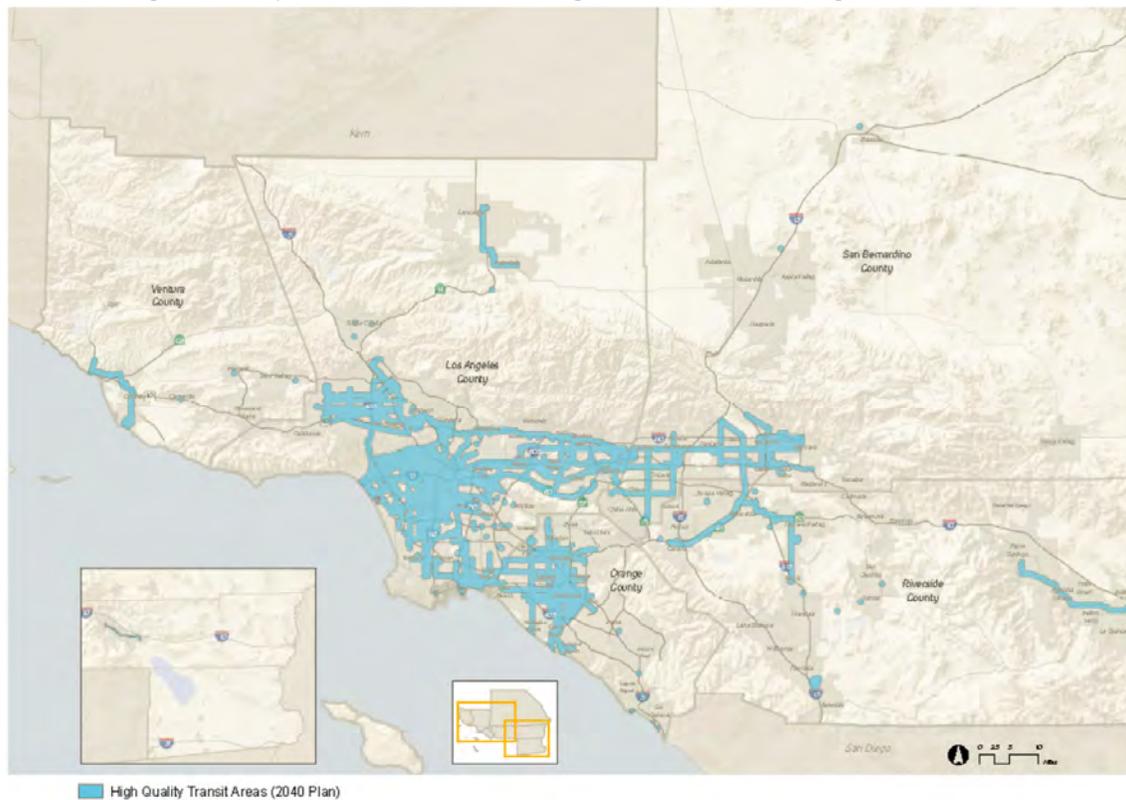
### *High Quality Transit Areas (HQTAs)*

The Draft 2016 RTP/SCS forecasted land use pattern reinforces the trend of focusing new housing and employment in the region's HQTAs. An HQTA is an area within one-half mile of (1) a fixed guideway transit stop, or (2) bus transit corridors where buses pick up passengers every 15 minutes or less during peak commute hours.

HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional lifecycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability. Here, households have expanded transportation choices with ready access to a multitude of safe and convenient transportation alternatives to driving alone – including walking and biking, taking the bus, light rail, commuter rail, the subway, and/or shared mobility options. Households have more direct and easier access to jobs, schools, shopping, healthcare, and entertainment, especially as Millennials form households and the senior population increases. Moreover, focusing future growth in HQTAs can provide expanded housing choices that nimbly respond to trends and market demands, encourage adaptive reuse of existing structures, revitalize main streets, and increase complete street investments.

A forecasted regional land use pattern has been developed exhibiting increased residential and employment growth in HQTAs, with corresponding reduced growth in areas lacking transit infrastructure. Regional investments in “First/Last Mile” strategies are expanded within HQTAs to increase transit ridership by making it quicker and easier to complete a transit trip. Investments include enhanced street crossings, connections, wayfinding, signage, station amenities, and bike parking. While HQTAs account for only 3 percent of total land area in SCAG region, they are planned and projected to accommodate 46 percent of the region's future household growth, and 50 percent of the future employment growth.

### High Quality Transit Areas throughout the SCAG region in 2040



#### *Livable Corridors*

“Livable Corridors” are arterial roadways where jurisdictions may plan for a combination of the following elements: high-quality bus frequency; higher density residential and employment at key intersections; and increased active transportation through dedicated bikeways. Most Livable Corridors would be located within HQTAs. Livable Corridor land-use strategies include development of mixed use retail centers at key nodes along corridors, increasing neighborhood-oriented retail at more intersections, applying a “complete streets” approach to roadway improvements, and zoning that allows for the replacement of underperforming auto-oriented strip retail between nodes with higher density residential and employment. These strategies will allow

more context sensitive density, improve retail performance, combat blight, and improve fiscal outcomes for local communities.

### *Neighborhood Mobility Areas*

Neighborhood Mobility Areas (NMA) represent the synthesis of various planning practices, and are applicable in a wide range of settings in the SCAG region. Strategies are intended to provide sustainable transportation options for residents of the region who lack convenient access to high-frequency transit options but have a high proportion of short-trips relating to the surrounding urban form. NMAs are conducive to active transportation and include a “complete streets” approach to roadway improvements to encourage replacing single- and multi-occupant automobile use with biking, walking, skateboarding, neighborhood electric vehicles and senior mobility devices. A complete streets approach ensures that transportation plans meet the needs of all users of the roadway system. These areas have high intersection density, low to moderate traffic speeds, and robust residential retail connections. NMAs are suburban in nature, but can support slightly higher density in targeted locations.

### *Zero Emissions Vehicles & Electric Vehicle Charging Stations*

Since SCAG adopted the 2012 RTP/SCS, the Governor’s Office released Zero Emissions Vehicle (ZEV) Action Plans in 2013 and 2015. These plans identified state level funding to support the implementation of Plug-in Electric Vehicle (PEV) and Hydrogen Fuel Cell refueling networks, and contain ambitious targets for all ZEV vehicle classes. SCAG leveraged its transportation model and land use models to complete a Regional PEV Readiness Plan in 2012. As part of the Draft 2016 RTP/SCS, SCAG has focused location-based strategies specifically on increasing the efficiency to Plug-in Hybrid Electric Vehicles (PHEV) in the region. These are electric vehicles that are powered by a gasoline engine when their battery is depleted. The Draft 2016 RTP/SCS proposes a regional charging network that will increase the number of PHEV miles driven on electric power, in addition to supporting the growth of the PEV market generally. In many instances these chargers may double the electric range of PHEVs, reducing vehicle miles traveled that produce tail-pipe emissions.

### *Preserving Natural Lands*

Many natural land areas near the edge of existing urbanized areas do not have plans for conservation and are vulnerable to development pressure. Certain lands, such as riparian areas, have high per-acre habitat values and are host to some of the most diverse yet vulnerable species that play an important role in the overall ecosystem. Some cities and county transportation commissions have taken steps toward planning comprehensively for conserving natural lands and farmlands, while also meeting demands for growth. To support those and other comprehensive conservation planning efforts, SCAG studied regional scale habitat, developed a regional conservation framework, and assembled a natural resource database. The Draft 2016 RTP/SCS suggests redirecting growth from high value habitat areas to existing urbanized areas. This strategy avoids growth in sensitive habitat areas, builds upon the conservation framework, and complements an infill-based approach.

*Balancing Growth Distribution Between 500-Foot Buffer Areas and HQTAs*

The Draft 2016 RTP/SCS recognizes guidance from the 2005 ARB air quality manual, which recommends limiting the siting of sensitive uses within 500 feet of freeways and urban roads carrying more than 100,000 vehicles per day. 500 feet is approximately one-fifth of HQTAs. While the density is increased in some areas of HQTAs, the growth remains stable in the 500-foot buffer areas to reflect local input, thereby balancing the growth distribution.

The foregoing land use strategies build upon growth policies that the Regional Council adopted as part of the 2012 RTP/SCS. Many local policy documents that SCAG reviewed in developing the land use strategies are based on best practices that encourage infill and mixed-use development in transit rich and/or transit ready areas. The strategies in the Draft 2016 RTP/SCS recognize demographic shifts and the increasing demand for multifamily housing near transit infrastructure. In 2015, 38 percent of all households in the SCAG region were multifamily homes. Through 2040, the Draft Plan projects 67 percent of the 1.5 million new homes expected to be built will be multifamily units. At the 2040 end state, this change represents an increase from 43 percent to 49 percent of all housing units in the region.

HOUSING MIX	
Baseline	Plan
<p><i>Growth Increment:</i></p> <ul style="list-style-type: none"> <li>• 64% single family</li> <li>• 36% multifamily</li> </ul> <p><i>End State:</i></p> <ul style="list-style-type: none"> <li>• 57% single family</li> <li>• 43% multifamily</li> </ul>	<p><i>Growth Increment:</i></p> <ul style="list-style-type: none"> <li>• 33% single family</li> <li>• 67% multifamily</li> </ul> <p><i>End State:</i></p> <ul style="list-style-type: none"> <li>• 51% single family</li> <li>• 49% multifamily</li> </ul>

Ultimately, the Draft 2016 RTP/SCS integrates regional land use strategies with transportation investments to reduce VMT and result in cleaner air by increasing transit ridership, increasing walking and biking, and reducing the length of auto trips. The table below summarizes the land use characteristics for the entire region if these strategies are implemented.



LAND USE CHARACTERISTICS		
	Baseline	Plan
<b>Land Use and Transit Coordination</b>	<i>High Quality Transit Areas</i> <ul style="list-style-type: none"> <li>• 36% Homes</li> <li>• 44% Employees</li> </ul>	<i>High Quality Transit Areas</i> <ul style="list-style-type: none"> <li>• 47% Homes</li> <li>• 56% Employees</li> </ul>
<b>Land Pattern Focus</b>	<i>2012-2040 New growth:</i> <ul style="list-style-type: none"> <li>• 3% Urban Infill</li> <li>• 11% Compact Walkable</li> <li>• 86% Standard Suburban</li> </ul>	<i>2012-2040 New growth:</i> <ul style="list-style-type: none"> <li>• 13% Urban Infill</li> <li>• 49% Compact Walkable</li> <li>• 38% Standard Suburban</li> </ul>

### *Affordable Housing*

As a council of governments (COG), SCAG is responsible for developing the Regional Housing Needs Assessment (RHNA) allocation, which represents future housing need for all income groups for each jurisdiction within the SCAG region. The integrated growth forecast is used as a basis to determine projected household growth as part of the RHNA methodology. The most recent RHNA allocation was adopted by the SCAG Regional Council in October 2012 and represents the 8 year planning period between October 2013 and October 2021. The next RHNA allocation is scheduled to be adopted in October 2020.

Once a jurisdiction receives its RHNA allocation, it is required to update its housing element as part of its General Plan. A jurisdiction’s housing element must provide a sites and zoning analysis to accommodate its RHNA allocation and plan for all housing types, including affordable housing. Jurisdictions can consider a wide variety of zoning tools and housing types to accommodate future housing need in their housing element.

### **Transportation Strategies**

#### *Preserving our Existing System*

Southern California’s transportation system is becoming increasingly compromised by decades of underinvestment in maintaining and preserving our infrastructure. These investments have not kept pace with the demands placed on the system, and the quality of many of our roads, highways, bridges, transit, and bicycle and pedestrian facilities are continuing to deteriorate. Unfortunately, the longer they deteriorate the more expensive they will be to fix in the future. Even worse, deficient conditions compromise the safety of users throughout the network. For all of these reasons, system preservation and achieving a state of good repair are top priorities of the 2016 RTP/SCS.



## *Recommendation*

Consistent with TC's prior action on September 3, 2015 to support the Draft 2016 RTP/SCS including the guiding principles of the 2012 RTP/SCS financial plan and reasonably available revenue strategies, staff recommends investing \$272.8 billion toward preserving our existing system. The allocation of these expenditures include the transit and passenger rail system, the state highway system, and regionally significant local streets and roads. Note that the allocation for the state highway system includes bridges; the allocation for transit includes funding to both preserve and operate the transit system; and the allocation for regionally significant local streets and roads includes bridges and active transportation safety improvements. Staff recommends the following strategies:

- Protecting and preserving what we have first, supporting a “fix-it-first” principle.
- Considering the cycle costs beyond construction.
- Continuing to work with stakeholders to identify and support new sustainable funding sources and/or increased funding levels for preservation and maintenance.

## *Potential Benefits*

Investing in system preservation is one of the most cost-effective investments. At a minimum, the proposed investments will result in:

- Improved user experience (i.e. motorists, transit riders, bicyclists, pedestrians) of the system.
- Lower the costs for all tax payers over the long run.
- Lower the costs to the users in the form of reduced auto repair bills and lower fuel costs.
- Cleaner air and reduced greenhouse gas emissions from more efficiently operating transportation system.

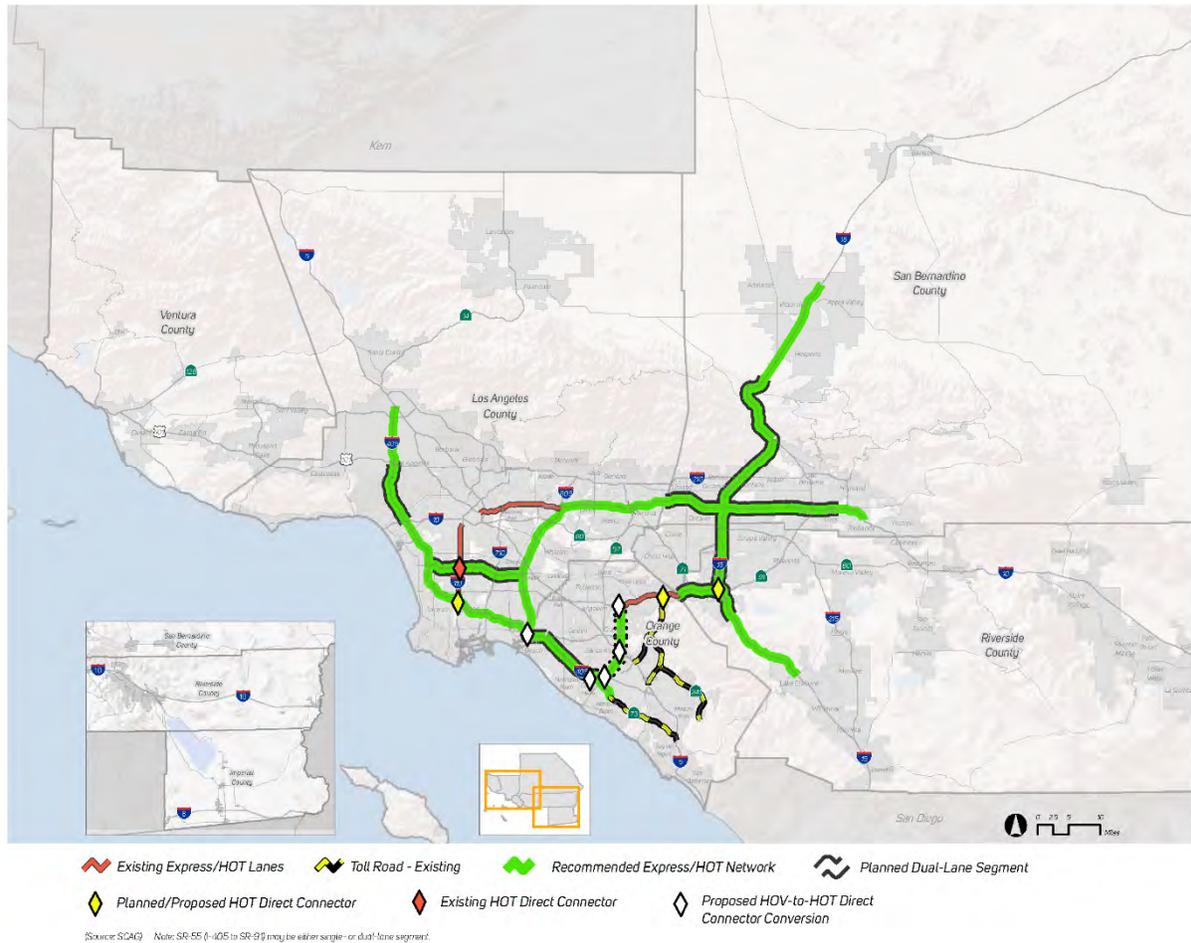
## *Highway and Arterials*

Our region's highways and arterials serve as a crucial backbone of our overall regional transportation network. As part of the 2016 RTP/SCS, SCAG continues to advocate for a comprehensive solution based on a system management approach to manage and maintain our highway and arterial network. Although we recognize that we can no longer rely on system expansion alone to address our mobility needs, critical gaps and congestion chokepoints in the network still hinder access to certain parts of the region. County transportation plans have identified projects to close these gaps, eliminate congestion chokepoints and complete the system in which such improvements are included in the 2016 RTP/SCS.

Consistent with our regional emphasis on the system management pyramid, recent planning efforts have focused on enhanced system management, including the integration of value pricing to better use existing capacity and offer users greater travel time reliability and choices. Express Lanes that are appropriately priced to reflect demand can outperform non-priced lanes in terms of throughput, especially during congested periods. Moreover, revenue generated from priced lanes can be used to deliver the needed capacity provided by the Express Lanes sooner, and to support complementary transit investments.

The regional Express Lane network included in the 2016 RTP/SCS builds on the success of the State Route 91 Express Lanes in Orange County, as well as the Interstate 10 and Interstate 110 Express Lanes in Los Angeles County. Additional efforts underway include the extension of the State Route 91 Express Lanes to the Interstate 15, as well planned Express Lanes on the Interstate 15 in Riverside County. Express Lanes are also planned for Interstate 15 and Interstate 10 in San Bernardino County. The following figure displays the segments in the proposed regional Express Lane network.

## Proposed Regional Express Lane Network



Our region’s arterial system is comprised of local streets and roads that serve many different functions. One is to link our region’s residents with schools, jobs, healthcare, recreation, retail and other destinations. A number of arterials run parallel to major highways, and they can provide alternatives to them. Beyond automobiles, our arterials serve other modes of travel, including transit and active transportation. The 2016 RTP/SCS proposes a variety of arterial projects and improvements throughout the region. Operational and technological improvements

can maximize system productivity through various cost-effective and non-labor intensive means – beyond improvements to expand capacity. These include signal synchronization, spot widening, and adding grade separations at major intersections.

### *Recommendation*

Consistent with TC’s prior action on September 3, 2015 to support the Draft 2016 RTP/SCS including the guiding principles and framework of the Highways and Arterials component of the Plan, staff recommends investing \$55.5 billion toward Highway and Arterial strategies throughout the region. Staff recommends the following strategies:

- Focusing on achieving maximum productivity through strategic investments in system management and demand management.
- Focusing on adding capacity primarily (but not exclusively) to:
  - Closing gaps in the system; and
  - Improving access where needed
- Supporting policies and system improvements that will encourage the seamless operation of our roadway network from a user perspective.
- Increasing roadway capacity with consideration and incorporation of congestion management strategies, including demand management measures, operational improvements, transit, and ITS, where feasible.
- Focusing on addressing non-recurring congestion with new technology.
- Supporting “complete streets” opportunities developed from general plans as part of AB-1358 (2008) compliance and SB-743 (2013).

### *Potential Benefits*

The following are some of the benefits that can be expected from investing in our roadway system.

- Improved mobility and accessibility to opportunities for the majority of our commuters and residents.
- Will provide additional capacity needed to run additional transit services, including express bus services and Bus Rapid Transit (BRT).
- More efficient system due to gap closures, eliminating the need to make detours onto local streets.

### *Transportation Demand Management (TDM) and System Management (TSM)*

Efficient management of the demand placed on our transportation system and efficient operation of our transportation assets is critical, not only to ensure we are spending our scarce resources wisely, but also to ensure we are meeting our vision and our broader goals of improving the quality of life in Southern California. Expanding our investments in TDM and TSM strategies will allow us to achieve these objectives. More specifically, we must strive to:

- Manage our demand wisely before considering capital intensive options to meet our future demands, and
- Ensure an efficiently operating system through application of best practices and technology (Intelligent Transportation Systems (ITS)).

## *Recommendation*

Staff recommends investing \$6.9 billion toward TDM strategies throughout the region. There are three main areas of focus:

- Reducing the number of drive-alone trips and overall VMT through ridesharing, which includes carpooling, vanpooling and supportive policies for shared ride services such as Uber and Lyft.
- Redistributing or eliminating vehicle trips from peak demand periods through incentives for telecommuting and alternative work schedules.
- Reducing the number of drive-alone trips through use of other modes of travel such as transit, rail, bicycling and walking.

In addition, the following strategies expand and encourage the implementation of TDM strategies to their fullest extent:

- Rideshare incentives and rideshare matching;
- Parking management and parking cash-out policies;
- Preferential parking or parking subsidies for carpoolers;
- Intelligent parking programs;
- Promotion and expansion of Guaranteed Ride Home programs;
- Incentives for telecommuting and flexible work schedules;
- Integrated mobility hubs and first/last mile strategies;
- Incentives for employees who bike and walk to work; and
- Investments in active transportation infrastructure.

Staff also recommends \$9.2 billion for TSM improvements that work in concert to optimize the performance of the transportation system. These include extensive advanced ramp metering, enhanced incident management, bottleneck removal to improve flow (e.g. auxiliary lanes), expansion and integration of the traffic signal synchronization network, data collection to monitor system performance, and other ITS improvements. Several key TSM strategies include:

- Corridor System Management Plans to identify lower cost, higher benefit options to maximize efficiency and productivity along major highway corridors, including coordination with parallel arterial systems, transit and incident response management.
- Integrated Corridor Management in which all elements within a corridor are considered to evaluate opportunities that move people and goods in the most efficient manner while ensuring the greatest operational efficiencies are achieved.
- Arterial Signal Synchronization Projects to optimize traffic flow.
- Dynamic Corridor Congestion Management to coordinate highway ramp metering with arterial signals, inform the traveling public of expected travel times to various destinations, and provide travel time comparisons with transit.

## *Potential Benefits*

The following are some of the benefits expected to result from these investments.

- Increased use of carpooling, transit, and telecommuting, resulting in better performing system overall.
- A more efficient and fully functioning transportation system.
- Enhanced real-time traveler information resulting in improved user experience and efficient system utilization.
- Reduced congestion on our roadways.
- Reduced VMT, greenhouse gas emissions, and cleaner air.
- Reduced need for investing in expensive capital improvement projects.

## *Transit*

Continuing to expand our transit system and improve services is critical to realizing our vision described earlier in this report and ultimately meeting our broad societal goals and objectives.

Key points considered in developing recommendations to expand our transit system include:

- Significant investments in transit already committed locally (CTCs)
- Changing demographics and urban forms call for more travel choices, particularly transit
- Transit can help relieve pressure and provide alternatives on some of our most congested corridors
- Additional transit will be necessary to ensure our pricing strategies work efficiently and equitably

## *Recommendation*

Significant investment in transit is already committed locally, primarily based on local sales tax measures as reflected in the current RTP/SCS. Some of the illustrative projects backed by current commitments are:

- Purple Line Extension to Westwood
- Gold Line Eastside Extension Phase 2
- Airport Metro Connector
- Anaheim Rapid Connection
- Santa Ana-Garden Grove Fixed Guideway (OC Streetcar)
- Metrolink Perris Valley Line Extension to San Jacinto
- Redlands Rail

When these projects are completed, the region will have a greatly expanded urban rail network, including ten light-rail projects and three heavy rail extensions on the Metro Rail system. New BRT routes will provide additional higher speed bus service in Los Angeles and Orange Counties and the Inland Empire. Orange County will add new streetcar services to link major destinations in Anaheim, Santa Ana and Garden Grove to the Metrolink system. Riverside County will extend Metrolink to San Jacinto, and San Bernardino County will connect Metrolink to Ontario International Airport and to Redlands via Downtown San Bernardino.

In addition to current commitments, staff recommends extensive local bus, rapid bus, BRT and express service improvements. An expanded point-to-point express bus network will take advantage of the region's carpool and express lane network. New BRT service, limited-stop service, and increased local bus service along key corridors, in coordination with transit-oriented development and land use, will encourage greater use of transit for short local trips. Also included in the investment package are renewed commitments to asset management and maintaining a state of good repair.

Staff also recommends the following strategies:

- Implement and expand transit priority strategies, including transit signal priority, queue jumpers and bus lanes.
- Implement regional and inter-county fare agreements and media to make transit more attractive and accessible.
- Increase bicycle carrying capacity on transit and rail vehicles to facilitate first/last mile connections.
- Expand and improve real-time passenger information systems to allow travelers to make more informed decisions and improve the overall travel experience.
- Implement first/last mile strategies to extend the effective reach of transit.

The total recommended investment in transit is \$56.1 billion for capital and \$156.7 billion for operations & maintenance. This recommendation is consistent with TC's prior action on September 3, 2015 to support Draft 2016 RTP/SCS inclusion of the framework of the proposed transit strategies.

### *Potential Benefits*

Some of the benefits of investing in transit are:

- New and enhanced transit services that provide new choices for commuters and residents
- Cleaner air and reduced congestion, VMTs and greenhouse gas emissions.
- Facilitation of current and future smart growth and sustainable communities
- The ability for our residents to choose a healthier, more active lifestyle
- The ability for our residents who do not own a vehicle to remain mobile and active

### *Passenger Rail and High Speed Rail*

In November 2008, California voters passed a historic bond measure (Proposition 1A) that, among other things, authorizes the State to raise \$9 billion in bond funds to build our first statewide high speed rail system. Phase I of this system, which will connect Los Angeles Union Station and Anaheim to the Central Valley and San Francisco Bay Area, is to be implemented during the RTP/SCS timeframe (i.e., by 2040) and presents an enormous opportunity for the state and our region. With the adoption of the 2012 RTP/SCS, the region and the California High Speed Rail Authority (CHSRA) committed to spending a combined \$1 billion in Proposition 1A and matching funds on early investments in the existing passenger rail system. This commitment was formalized in a Memorandum of Understanding (MOU) which identifies a candidate project list to improve the Metrolink system and the Los Angeles-San Diego-San Luis Obispo

(LOSSAN) rail corridor, thereby providing immediate, near-term benefits to the region while laying the groundwork for future integration with High Speed Rail.

### *Recommendation*

Staff recommends maintaining the commitments in the 2012 RTP/SCS and the High Speed Rail MOU that will improve rail speed, service and safety for Metrolink and the LOSSAN rail corridor, provide interconnectivity to the future High Speed Rail system, and provide an attractive alternative to driving alone. This includes the MOU capital projects to bring segments of the regional rail network up to the federally defined speed of 110 miles per hour or greater, and to implement a blended system of rail services.

A key MOU project and top priority is the Southern California Regional Interconnector Project (SCRIP, formerly called the Los Angeles Union Station Run-Through Tracks). This project will deliver regional benefits for all counties served by Metrolink and LOSSAN/Amtrak Pacific Surfliner by extending at least four tracks south of Union Station and across the U.S. Route 101 freeway to connect with the main tracks along the Los Angeles River. This will increase Union Station's capacity by 40 to 50 percent, result in improved operations, and reduce air pollution and greenhouse gas emissions from idling locomotives.

In addition to the MOU projects, investments are identified in the LOSSAN Strategic Implementation Plan for 2030 and in the Metrolink 2015 Strategic Assessment. Staff also recommends the following passenger rail strategies:

- Secure increased funding and dedicated funding sources
- Support increased transit-oriented development and first/last mile strategies
- Implement cooperative fare agreements and media

The total recommended investment in passenger rail is \$38.6 billion for capital and \$15.7 billion for operations & maintenance. This recommendation is consistent with TC's prior action on September 3, 2015 to support Draft 2016 RTP/SCS inclusion of the framework of the proposed passenger rail strategies.

### *Potential Benefits*

Proposed investments in our Passenger and High Speed Rail system is expected to yield the following benefits.

- New and enhanced sustainable transportation options for travel between regions.
- Reduced congestion and greenhouse gas emissions from travel market shift from air and car travel.
- A system that complements and feeds current inter-city (Amtrak) and commuter rail (Metrolink) and the region's public transit network, and vice-versa.
- Economic benefits and new jobs from constructing the projects.
- Reduced demand for short haul flights in our most congested airports, particularly LAX.

## *Goods Movement*

Consistent with TC's prior action on October 8, 2015 to support Draft 2016 RTP/SCS inclusion of the framework for goods movement strategies, these strategies total \$75 billion and include the following key components:

- A Regional Clean Freight Corridor System—a system of truck-only lanes extending from the San Pedro Bay Ports to downtown Los Angeles along Interstate 710, connecting to the State Route 60 east-west segment, and finally reaching Interstate 15 in San Bernardino County. Such a system would address growing truck traffic and safety issues on core highways through the region and serve key goods movement industries. Ongoing evaluation of a regional freight corridor system is underway, including recent work on an environmental impact report (expected to be recirculated in 2016) for the Interstate 710 segment. Additionally, as a part of the 2016 RTP/SCS, SCAG continues to refine the east-west corridor component of the system along the State Route 60 corridor.
- Truck Bottleneck Relief Strategy—the top 50 truck bottlenecks were identified through a process that included a quantitative analysis of congestion in the region and stakeholder outreach. This analysis has been updated for the 2016 RTP/SCS. The 2016 RTP/SCS allocates an estimated \$5 billion toward goods movement bottleneck relief strategies. In past RTPs, SCAG directly addressed truck bottlenecks by developing a coordinated strategy to identify and mitigate the top-priority truck bottlenecks. This RTP/SCS has updated previous analysis to confirm previously identified bottlenecks and to identify potential new bottlenecks.
- Rail Strategy—the region's extensive rail network offers shippers the ability to move large volumes of goods over long distances at lower costs, compared with other transportation options. The 2016 RTP/SCS continues to incorporate the following rail strategies for goods movement:
  - Additional mainline tracks for the BNSF San Bernardino and Cajon Subdivisions and the UPRR Alhambra and Mojave Subdivisions
  - Expansion/modernization of intermodal facilities
  - Highway-rail grade separations
  - Port-area rail improvements, including on-dock rail enhancements
- Goods Movement Environmental Strategy—focuses on a two-pronged approach for achieving an efficient, safe and economically sound freight system that also reduces environmental impacts. For the near term, the regional strategy supports the deployment of commercially available low-emission trucks and locomotives while centering on continued investments into improved system efficiencies. In the longer term, the strategy focuses on advancing technologies — taking critical steps now toward phased implementation of a zero-emission and near-zero-emission freight system. The plan to develop and deploy advanced technologies includes 4 phases of technology development and implementation, during which technology needs are defined, prototypes are tested and developed, and efforts are scaled up. This cycle of technology development is continuous, and it will renew itself as new innovations emerge and technologies continue to evolve.

## *Potential Benefits*

The following are some of the benefits from the proposed recommendation:

- Supports mobility for key industries.
- Serves goods movement markets in an efficient manner.
- Helps alleviate the region's congestion.
- Promotes job creation and retention.
- Improves safety (reduced truck/automobile collisions and eliminates significant number of at-grade railroad crossings).
- Reduces emissions (CO<sub>2</sub>, NO<sub>x</sub> and PM<sub>2.5</sub>).

## *Active Transportation*

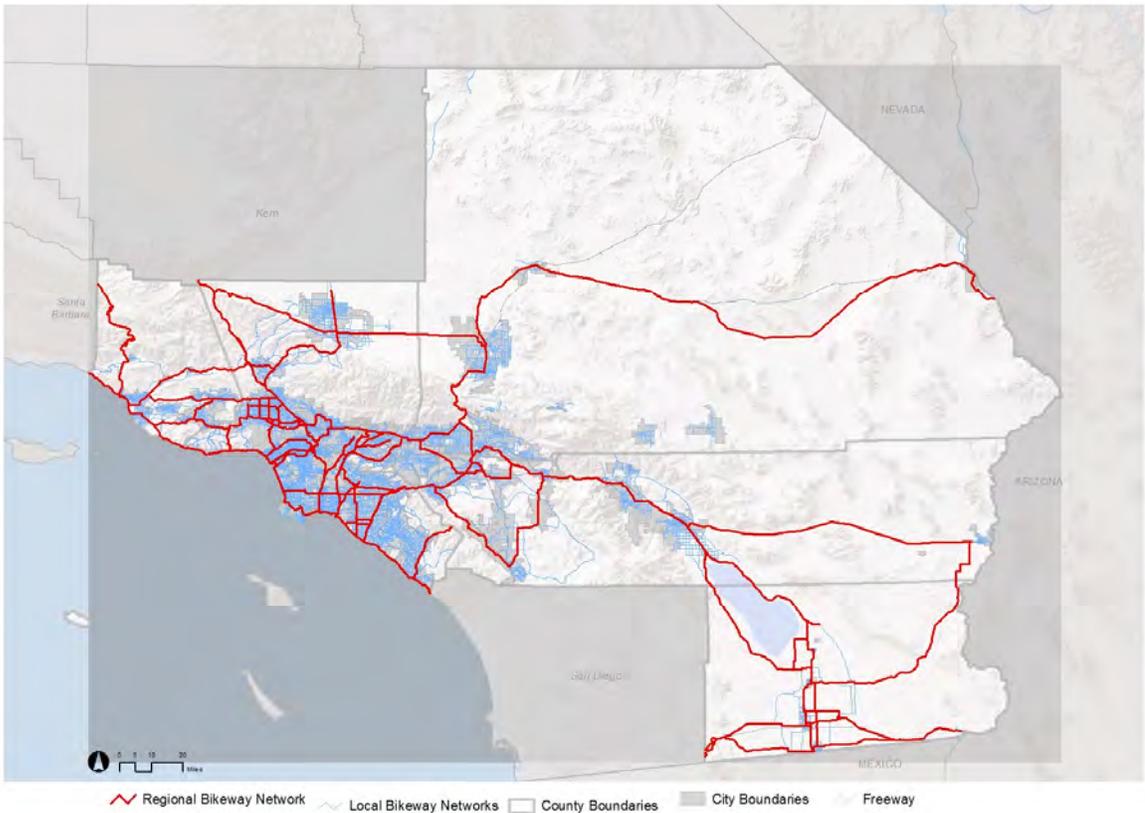
The 2016 Active Transportation Plan updates and expands upon the 2012 Plan. As such, it proposes strategies to continue progress made in developing regional bikeway network, assumes all local active transportation plans will be implemented and dedicates resources to maintain and repair thousands of miles of dilapidated sidewalks. The Plan also considers new strategies and approaches beyond those proposed in 2012.

## *Recommendation*

Consistent with TC's prior action on October 8, 2015 for Draft 2016 RTP/SCS inclusion of the proposed Active Transportation Plan Investment framework, the 2016 Active Transportation Plan would double funding available for active transportation to \$12.9 billion and includes 11 specific strategies for maximizing active transportation in the SCAG region in four broad categories (regional trips, transit integration, short trips and education/encouragement). These strategies include:

1. Regional-Trip Strategies (see map):
  - a. Regional Greenway Network: a 2,298 mile network, based on local plans designed to increase walking and biking by creating separated bikeways designed to appeal to most potential bicyclists.
  - b. Regional Bikeway Network (RBN): a 2,697 mile system of interconnected bicycle routes of regional significance, based on local plans. The RBN connects cities and counties and serves as a spine for local bikeway networks and the regional greenway network.
  - c. California Coastal Trail Access: The active transportation plan provides established paths as part of the Regional Greenway Network and Regional Bikeway Network to access the California Coastal Trail.

# REPORT



Source: SCAAG, 2015

Map Title: Enter Map Title Here

M:\P&P\LU&Env\Planning\Active Transportation\2016 RTP\Exhibits\Regional Bikeway Network.mxd | Date: 10/22/2015



2. Transit Integration Strategies:
  - a. First Mile/Last Mile: The Plan proposes bicyclist and pedestrian improvements at and around 224 rail or fixed-guideway bus stations.
  - b. Livable Corridors: The Plan proposes 16 corridors totaling 670 miles for improvements separate from those areas in the First Mile/Last Mile strategy.
  - c. Bike Share Services: The Plan calls for 880 stations and 8,800 bicycles starting in Downtown Los Angeles and Pasadena, and then moving into other locations.
3. Short-Trip Strategies:
  - a. Sidewalk quality: The Plan calls for 10,500 miles of new and improved sidewalks through development projects or larger road construction and maintenance projects
  - b. Local Bikeway Networks: The planned 7,200 miles of new local bikeways are the foundation for the regional bikeway network and the regional greenway network. Combined, the local, regional and greenway networks comprise 12,700 miles of bikeways in the region.
  - c. Neighborhood Mobility Areas: The strategy includes polices to encourage replacing single and multi-occupant automobile use with biking, walking, skateboarding and neighborhood electric vehicles. Complete Streets strategies, such as traffic calming, bicycle priority streets (bicycle boulevards), and pedestrian connectivity increase physical activity, improve connectivity to the regional bikeway/greenway networks, local businesses and parks.
4. Education and Encouragement
  - a. Safe Routes to School: Approximately \$280 million over the life of the plan is devoted to Safe Routes to School programs and projects.
  - b. Safety Campaigns: The existing Safety and Encouragement Campaign is anticipated to be updated and conducted every five years.



### Potential Benefits

Proposed investments in Active Transportation are expected to yield the following benefits:

- Increased biking and walking, particularly for short trips. Walking in the 2040 Plan is expected to increase 28 percent from 2012.
- Biking in the 2040 Plan is expected to increase 71 percent.
- Improved overall transit usage by 9 percent compared to the 2040 Plan with no Active Transportation investments.
- Improved transit usage in high quality transit areas by 10 percent compared to the 2040 Plan with no Active Transportation investments.

## *Aviation*

The SCAG region is one of the busiest and most diverse commercial aviation regions in the world. In 2014, over 60 airlines offered scheduled service to one or more of our region's airports, providing over 1,200 daily commercial departures—one every 70 seconds. These departing flights travel all over the United States and to every corner of the globe—in all, a total of 169 destinations in 37 countries had non-stop service from our region in 2014. Our airports also play a critical role in the region's goods movement network, and they impact the operations of our ground transportation network as well. The passengers arriving at or departing from our airports generate over 200,000 daily trips on our region's ground transportation system.

The development of the air passenger demand forecasts for the 2016 RTP/SCS is based on two premises:

- First, aviation demand is regional. Because aviation is used to travel much longer distances than cars, trains and other modes of transportation, nearly all commercial air travel generated by our region occurs between the region and some other region of the state, country, or globe. Air passengers first make the choice to travel by air, and then they choose which airports to utilize for their trip. Thus, the demand for air travel is for travel to and from the region as a whole, not to and from a specific airport.
- Second, aviation demand is driven by macroeconomic trends at the regional, national, and global levels. Our region draws travelers from around the world because we are fortunate to have a diverse and growing population, many prominent cultural and educational institutions, a wealth of natural attractions from the mountains to the coast, a warm and sunny climate, and tourist attractions that are known worldwide. Thus, the demand for air travel between the SCAG region and other parts of the world depends on the level of economic activity not just here but in many other locations around the country and the world.

Based on the historical relationship between economic activity and the demand for air travel, as well as expected future economic conditions in our and other regions, total air passenger demand in our region is expected to increase from 91.2 million annual passengers (MAP) in 2014 to 136.2 MAP in 2040. This represents a 1.6 percent annual growth rate over the forecast period. This regional forecast is strong and reflects the potential for the region to have long-term economic recovery and growth. This regional passenger demand distribution of 136.2 MAP along with the hybrid approach of ranges and fixed numbers for each of the twelve regional commercial airports was previously approved by TC on August 6, 2015.

# REPORT

Airport	2040 Demand (MAP)
TOTAL	136.2
Burbank Bob Hope Airport (BUR)	7.3
Imperial County Airport (IPL)	0.2
Los Angeles International Airport (LAX)	82.9 - 96.6
Long Beach Airport (LGB)	5.0
LA/Ontario International Airport (ONT)	11.0 - 19.0
Oxnard Airport (OXR)	0.2
Palmdale Regional Airport (PMD)	0.5 - 2.5
Palm Springs International Airport (PSP)	3.7
March Inland Port (RIV)	0.2
San Bernardino International Airport (SBD)	0.2 - 1.5
John Wayne Airport (SNA)	12.5
Southern California Logistics Airport (VCV)	0.2

Note: These forecasts were approved by Transportation Committee on August 6, 2015.

Accommodating the future demand for air passenger and air cargo is critical to the economic health of the region. The economic impact of air travel to the region is expected to increase from \$27.4 billion in 2012 to \$43.8 billion in 2040 (in 2012 dollars), an increase of almost 60 percent. The number of jobs supported by visitors arriving by air is expected to increase from 275,000 to 452,000. If the region’s aviation system and supporting ground access network cannot accommodate the expected demand, some of this potential economic activity could be lost to other regions.

### Air Cargo Forecasts

The development of the air cargo demand forecasts is similar to that of the air passenger forecasts. The demand for air cargo is driven largely by the economic interrelationship of our region and other regions around the world. Because of its high cost, shipment by air is used primarily for time-sensitive and high-value goods. Total air cargo transported through our region’s airports has experienced an uneven recovery since the recession of 2007, but remained below year 2000 levels even in 2014. Based on the historical relationship between economic activity and the demand for air cargo, as well as expected future economic conditions in our and other regions, total air cargo demand in our region is expected to increase from 2.43 million metric tons in 2014 to 3.78 million metric tons in 2040. This represents a 1.8 percent annual growth rate over the forecast period. On October 8, 2015, the TC approved this proposed air cargo forecast for inclusion in the Draft 2016 RTP/SCS.

### Airport Ground Access

The ground access network serving the region’s airports is critical to both the aviation system and the ground transportation system. Passengers’ choice of airports is based in part on the travel time to the airport and the convenience of access, so facilitating airport access is essential to the



efficient functioning of the aviation system. In addition, airport related ground trips can contribute to local congestion in the vicinity of the airports.

### *Recommendation*

To reduce the impact of air passenger trips on ground transportation congestion, the 2016 RTP/SCS airport ground access strategies include the following:

- Support the regionalization of air travel demand
- Continue to support regional and inter-regional projects that facilitate airport ground access (e.g., High Speed Rail, High Desert Corridor)
- Support on-going local planning efforts by
  - Airport operators
  - County Transportation Commissions
  - Local jurisdictions
- Encourage development and use of transit access to the region's airports
- Encourage use of modes with high average vehicle occupancy (AVO)
- Discourage use of modes that require "deadhead" trips to/from airports

This recommendation is consistent with TC's prior action on October 8, 2015 for Draft 2016 RTP/SCS inclusion of the proposed regional aviation ground access strategies.

### *Potential Benefits*

The following are some of the potential benefits from the proposed recommendation:

- Accommodate future aviation demand in the region in an efficient and equitable manner.
- Allows decentralization of aviation demand and the economic opportunities associated with it.
- Minimizes additional ground access improvement needs beyond those that are already committed.

## **F. TRANSPORTATION FUNDING**

In accordance with federal fiscal constraint requirements, the financial plan for the 2016 RTP/SCS identifies how much money is reasonably expected to be available to build, operate, and maintain the region's surface transportation system through the forecast horizon year of 2040.

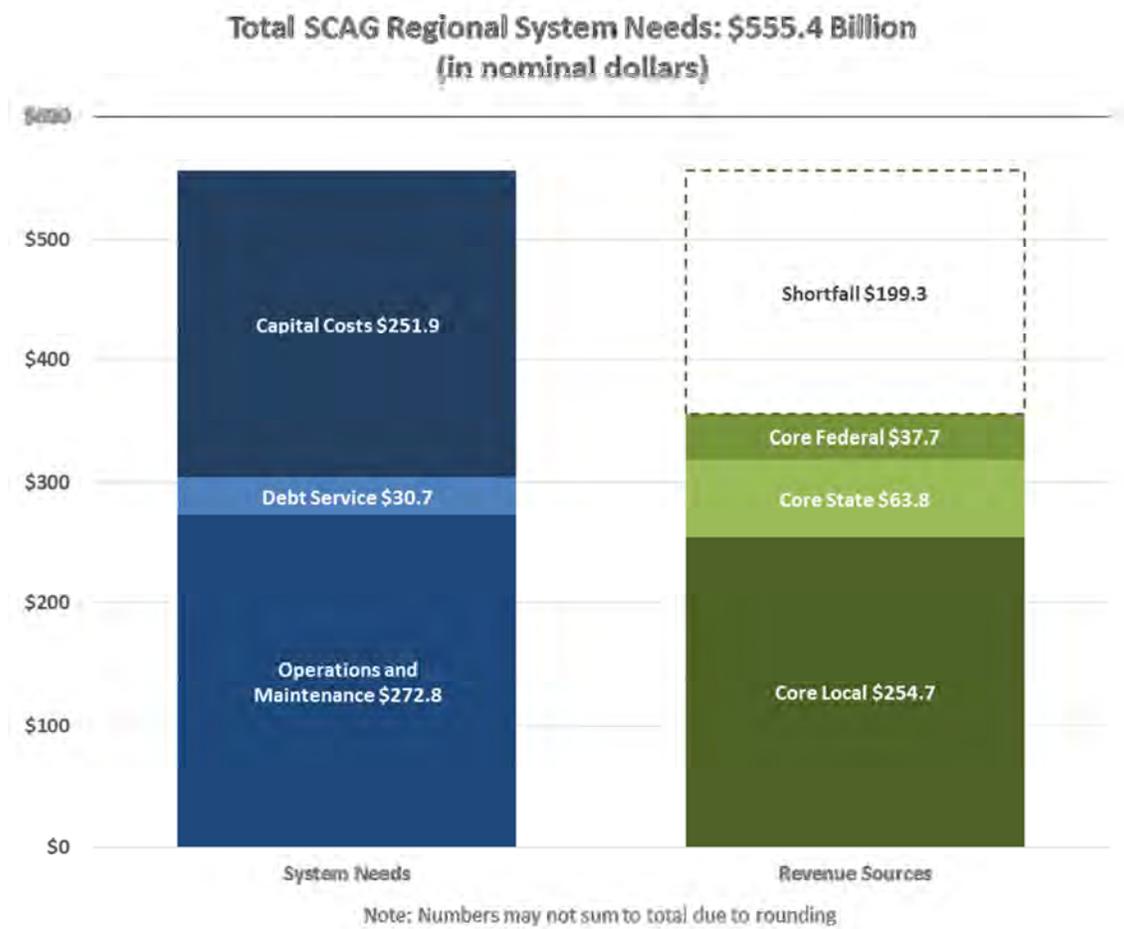
The latest forecast of core revenues totals about \$356 billion. Local sources, totaling \$255 billion, comprise the largest share of core revenues at 71 percent, followed by state sources totaling \$64 billion (18 percent) and federal sources totaling \$38 billion (11 percent). Core revenues are existing transportation funding sources projected through 2040. The core revenue forecast does not include future increases in tax rates or adoptions of new tax measures.

Forecast of expenditure needs totals \$555 billion. Operating and maintenance (O&M) expenditures needed to achieve a state of good repair total \$273 billion (49 percent). O&M includes \$65 billion in state highway O&M, \$157 billion in transit O&M, \$16 billion in

# REPORT

passenger rail O&M, and \$35 billion in regionally significant local streets and roads O&M. Capital project expenditures total \$252 billion (45 percent) and debt service totals \$31 billion (6 percent).

The difference between the expenditure forecast total (\$555 billion) and the core revenue forecast total (\$356 billion) is \$199 billion as shown in the figure below. This funding gap is similar to the amount identified in the 2012 RTP/SCS. As part of the 2012 RTP/SCS, reasonably available new revenue sources including short-term adjustments to state and federal gas excise tax rates and long-term replacement of gas taxes with mileage-based user fees were included to fill the gap.



As part of the 2012 RTP/SCS, the Regional Council adopted a set of key guiding principles to lay the foundation for identifying reasonably available new revenues. The Transportation Committee re-confirmed use of these guiding principles at its September 2015 meeting. The guiding principles are as follows:



- Establish a user-based system that better reflects the true cost of transportation with firewall protection for transportation funds while ensuring an equitable distribution of costs and benefits
- Promote national and state programs that include return to source guarantees while maintaining flexibility to reward regions that continue to commit substantial local resources
- Leverage locally available funding with innovative financing tools (e.g., tax credits and expansion of Transportation Infrastructure Finance and Innovation Act (TIFIA)) to attract private capital and accelerate project delivery
- Promote funding strategies that strengthen federal commitment to the nation’s goods movement system, recognizing the pivotal role that our region plays in domestic and international trade

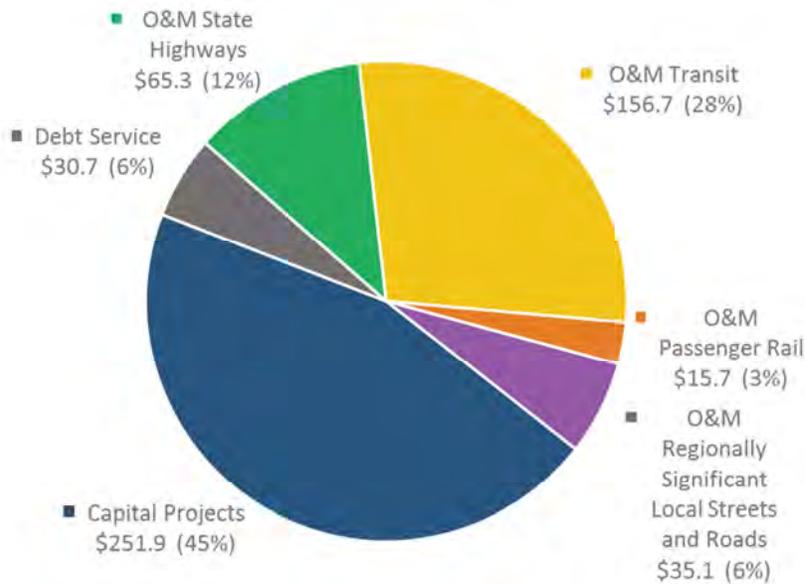
Based on these guiding principles, both near-term transitional strategies and long-term initiatives consistent with state and national discussions were supported by the Transportation Committee on September 3, 2015 for inclusion in the 2016 RTP/SCS, which are as follows:

**Reasonably Available Revenue Sources and Innovative Financing Strategies**  
**\$199.3 Billion (in nominal dollars)**

Revenue Source	Amount
State and Federal Gas Excise Tax Adjustment to Maintain Historical Purchasing Power	\$6.0
Mileage-Based User Fee (or equivalent fuel tax adjustment)	\$124.8 (est. increment only)
Highway Tolls (includes toll revenue bond proceeds)	\$23.5
Private Equity Participation	\$3.4
Freight Fee/National Freight Program	\$5.4
State Bond Proceeds, Cap-and-Trade Auction Proceeds & Other for California High-Speed Rail Program	\$34.0
Value Capture Strategies	\$1.2
Local Option Sales Tax (Ventura County)	\$1.1

As shown in the figure below, capital projects total \$251.9 billion in nominal dollars. Operating and maintenance (O&M) costs total \$272.8 billion, while debt service obligations total \$30.7 billion. Transit-related costs comprise the largest share of O&M costs for the region, totaling \$156.7 billion. Note: Numbers below may not sum to total due to rounding.

**Total Expenditures: \$555.4 Billion  
(in nominal dollars)**



**G. PLAN PERFORMANCE**

First and foremost, the Draft 2016 RTP/SCS meets all of the federal and state requirements. Based upon SCAG’s modeling analysis, the Draft Plan meets all the provisions of transportation conformity rules under the Clean Air Act. Cleaner fuels and new vehicle technologies will help to significantly reduce many of the pollutants that contribute to smog and other airborne contaminants that may impact public health in the region. The Plan also performs well when it comes to meeting state-mandated targets for reducing greenhouse gas emissions from cars and light trucks. The state’s targets for the SCAG region are an 8 percent per capita reduction in greenhouse gas emissions from automobiles and light trucks by 2020, and a 13 percent reduction by 2035 (compared with 2005 levels). The Draft Plan is anticipated to result in an 8 percent reduction in emissions by 2020, an 18 percent reduction by 2035, and a 22 percent reduction by 2040 as compared to 2005 levels.

The 2016 RTP/SCS also uses a number of performance measures to help gauge progress toward meeting SCAG’s goals and objectives. With the preferred scenario, SCAG developed the strategies, programs, and project proposals discussed above. To determine how effective these strategies, programs, and projects would be, SCAG conducted a “Plan” vs. “No Build” (i.e., Baseline) analysis – essentially comparing what the region would look like with and without implementation of the Plan. The analysis clearly shows that implementing the 2016 RTP/SCS would result in a regional transportation network that improves travel conditions and air quality, while also promoting an equitable distribution of benefits – that is, social equity. The analysis also found that the Plan will:



- Increase the combined percentage of work trips made by carpooling, active transportation and public transit by 4 percent, and reduce the share of commuters traveling by single occupant vehicle by 4 percent.
- Reduce vehicle miles traveled per capita by 10 percent and vehicle hours traveled per capita by 18 percent.
- Increase daily travel by transit by nearly 3 percent, as a result of improved transit service and more transit-oriented development patterns.
- Reduce delay per capita by 46 percent.
- Reduce heavy duty truck delay on highways by about 40 percent.
- Reduce the amount of previously undeveloped (greenfield) lands converted to more urbanized use by 23 percent. By conserving open space and other rural lands, the Plan provides a solid foundation for more sustainable development in the SCAG region.

### *Land Use Co-Benefits*

The land use strategies of the Draft 2016 RTP/SCS promote location efficiency by orienting new housing and job growth in areas served by high quality transit, and in other opportunity areas including existing main streets, downtowns, and corridors where infrastructure already exists. This more compact land use pattern, combined with the transportation network improvements, would result in improved pedestrian and bicycle access to community amenities, shorter average trip lengths, and reduced vehicle miles traveled. Strategies also support the development of more livable communities that provide more housing choices, consume less land, conserve natural resources, offer more and better transportation options, reduce average household transportation and utility costs, and promote an overall better quality of life.

<b>Co-Benefits</b>	<b>Draft Plan (Expressed as reductions relative to the Baseline scenario)</b>
Land Consumption	-23 %
Respiratory Health Cost	-13 %
Local Infrastructure and Services Costs for New Residential Growth (O&M+ Capital)	-8 %
Building Energy Use, cumulative (2012-2040)	-4 %
Building Water Use, cumulative (2012-2040)	-0.6 %
Per Household Transportation Costs (fuel + auto)	-13 %
Per Household Utilities Costs (energy + water)	-9 %

## *Economic & Job Creation*

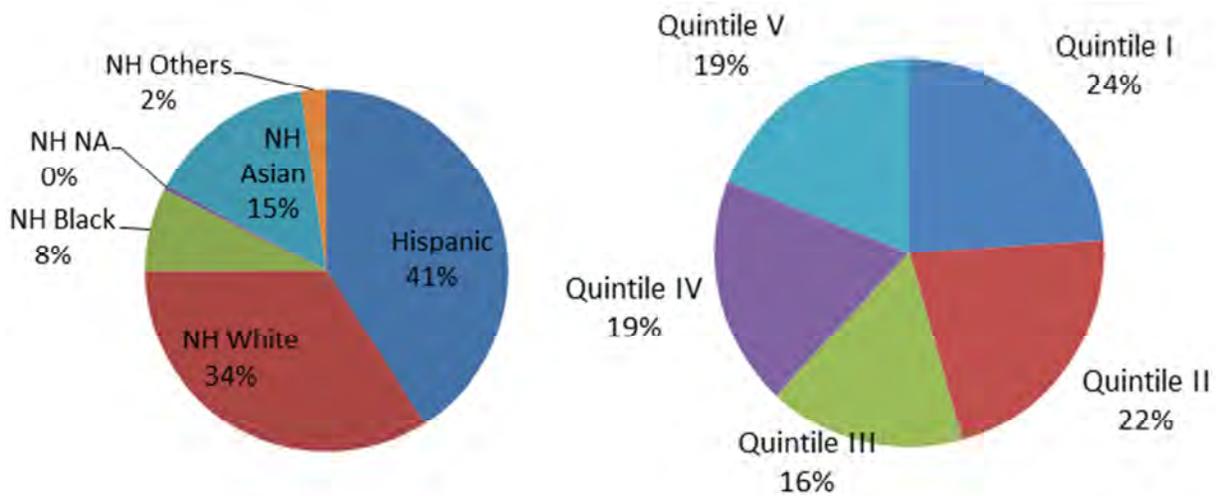
The 2016 RTP/SCS outlines a transportation infrastructure investment strategy that will beneficially impact Southern California, the State, and the nation in terms of economic development, job creation and economic growth, and overall business and economic competitive advantage in the global economy in terms of job creation and economic growth throughout the Southern California region. Over the 2016–2040 period, the RTP/SCS calls for the spending of over \$500 billion on transportation improvement projects. An independent economic analysis indicates that over the twenty-five year period and six-county SCAG region, the Plan will generate significant employment. The 2016 RTP/SCS boosts employment in two ways—providing jobs for persons in highway and rail construction, operation, and maintenance, and boosting the economic competitiveness of the SCAG region by making it a more attractive place to do business.

The economic analysis shows that, across SCAG’s six county region, an annual average of over 188,000 jobs-year will be generated by the construction, maintenance, and operations expenditures that are specified in the RTP/SCS program, and the indirect and induced jobs that flow from those expenditures.

When investments are made in the transportation system, the economic benefits go far beyond the jobs created building it, operating it, and maintaining it. Unlike spending to satisfy current needs, infrastructure delivers benefits for decades. The infrastructure, once built, can enhance the economic competitiveness of a region. Projects that reduce congestion may help firms produce at lower cost, or allow those firms to reach larger markets or hire more capable employees. An economy with a well-functioning transportation system can be a more attractive place for firms to do business, enhancing the economic competitiveness of the SCAG region. An additional 375,000 annual jobs will be created by the SCAG region’s increased competitiveness and improved economic performance that will result from congestion reduction and improvements in regional amenities due to implementation of the 2016 RTP/SCS.

## *Social Equity*

SCAG staff conducted environmental justice (EJ) analysis for the Draft 2016 RTP/SCS based on the investment plan by mode (vehicle, passenger rail and transit, active transportation, etc.) and transportation usage by income/ethnicity. In regards to social equity, the 2016 RTP/SCS provides an extensive analysis on the impacts of the Plan on low-income and minority communities. A number of performance indicators were evaluated, including jobs-housing balance, accessibility to parks and other amenities, air quality, gentrification and displacement, noise impacts, and public health. The EJ results indicate that the 2016 RTP/SCS is an equitable investment plan by addressing the needs of both minority and low-income populations in the SCAG region.



The top left chart indicates that the distribution of investment from the Draft 2016 RTP/SCS is equitable among all ethnic groups compared with their respective usage and population share, while the chart on the right indicates that the Draft Plan expenditures and investment are reasonably allocated across all income quintile groups. Additionally, the Plan’s EJ report includes a toolbox of suggestions for local jurisdictions and agencies to consider in addressing EJ issues, if any, at the local level.

### *Public Health*

The 2016 RTP/SCS also focuses on improving public health outcomes in the SCAG region. A separate Appendix has been developed to highlight the Plan’s performance through a public health “lens.” The EEC reviewed and provided direction on the guiding principles and framework for the development and presentation of public health analysis in the Draft Plan. Plan performance is summarized in seven key focus areas, including: Access to Essential Destinations, Affordable Housing, Air Quality, Climate Adaptation, Economic Opportunity, Physical Activity and Transportation Safety. Some key performance results include a reduction in the total annual health costs for respiratory disease by more than 13 percent compared to the Baseline, as well as, a reduction in our regional obesity rate by 2.5 percent and a reduction in the share of our population that suffers with high blood pressure by 3 percent.

## **H. NEXT STEPS**

Pending input from the Policy Committees at today’s Joint Meeting, the Regional Council will be asked to formally release the Draft 2016 RTP/SCS for public review and comment on December 3, 2015. The Draft Plan will be available for public review and comment through January 27, 2016, fulfilling the 55-day review period required under SB 375. The PEIR for the Draft 2016 RTP/SCS will have a concurrent 55-day public review and comment period. In addition, during this period, staff will also initiate public hearings and another round of outreach to the elected representatives as well as stakeholders and the general public. After the close of the comment period, staff will document all of the comments received and prepare responses as

# REPORT

---

appropriate. Based on the input received through this process, staff will make necessary adjustments to the Draft 2016 RTP/SCS Plan and return to the Regional Council to present the proposed Final 2016 RTP/SCS for adoption at the Regional Council's April 7, 2016 meeting.

**FISCAL IMPACT:**

Work associated with this item is included in the Fiscal Year 2015-2016 Overall Work Program (WBS Number 15-010.SCG00170.01: RTP Support, Development, and Implementation).

**ATTACHMENTS:**

1. PowerPoint Presentation: "Draft 2016 RTP/SCS: A Plan for Our Future"
2. Draft 2016 RTP/SCS Policy Growth Forecast at the Jurisdictional Level

This Page Intentionally Left Blank



# 2016 2040 RTP/SCS

A PLAN FOR OUR FUTURE

November 5, 2015  
Joint Policy Committee Meeting

## Presentation Outline

**1. Regional Collaboration and Outreach in Development of the 2016 Regional Transportation Plan and Sustainable Communities Strategy (2016 RTP/SCS)**

Hon. Cheryl Viegas-Walker, President

**2. Leadership and Guidance from SCAG's Policy Committees**

Hon. Alan Wapner, Chair, Transportation Committee

Hon. Bill Jahn, Chair, Community, Economic & Human Development Committee

Hon. Deborah Robertson, Chair, Energy & Environment Committee

**3. Performance Outcomes of the Draft 2016 RTP/SCS**

Hasan Ikhata, Executive Director

**4. Environmental Compliance**

Huasha Liu, Director, Land Use & Environmental Planning

## Public Outreach & Committee Highlights

Meetings with Local Jurisdictions <i>to update and develop land use and SED forecasts (Since December 2013)</i>	195	Public Workshops and Open Houses <i>(Since May 2015)</i>	23
Regional Council and Joint Policy Committee Meetings <i>(Since March 2015)</i>	12	Environmental Justice Workshops <i>(Since November 2014)</i>	5
Policy Committee and Subcommittee Meetings <i>(Since January 2013)</i>		44	
Technical Committee Meetings <i>(Since January 2013)</i>		93	

3

## Transportation Committee

4

## Transportation Committee

### Highways and Arterials-Related Strategies

- **Maximize productivity** through system management & demand management
- Add capacity primarily to close gaps/improve access
- New projects consider congestion management strategies
- Support **seamlessly operating system**
- Address non-recurring congestion with new technology
- Support “**complete streets**”
- Support projects consistent with ITS Architecture
- Maintain and preserve our existing infrastructure
- **Fix-it First**
- Consider the **life cycle costs** of new projects
- Continue to identify and support funding sources
- Further develop regional **Express/HOT Lane network**

5

## Transportation Committee

### Alternative Transportation Strategies

#### Transit & Passenger Rail

- Prioritize existing local commitments and expand the region’s transit system
- Invest in **local bus, rapid bus, BRT** and point-to-point express bus service
- Maintain existing and future transit system assets in a state of good repair
- Use technology to operate transit more efficiently and effectively and make it more accessible to travelers
- **Support California High Speed Rail Phase 1**
- Improve Metrolink and the LOSSAN rail corridor as part of the “blended approach” to High Speed Rail

#### Active Transportation

- Better **align active transportation investments with land use and transportation** strategies
- Increase the competitiveness of local agencies for federal and state funding
- Develop strategies that **serve people from 8-80 years old** to reflect changing demographics and make active transportation attractive to more people
- Expand regional understanding of the **role that short trips play** in achieving goals and performance objectives, and provide strategic framework to support local planning and project development serving short trips
- Expand understanding and consideration of public health in the development of local plans and projects

6

## Transportation Committee Regional Economic Strategies

### Goods Movement

- Regional Clean Freight Corridor System
- Truck Bottleneck Relief Strategy
- Rail Strategy
  - Additional mainline tracks for the BNSF San Bernardino and Cajon Subdivisions and the UPRR Alhambra and Mojave Subdivisions
  - Expansion/modernization of intermodal facilities
  - Highway-rail grade separations
  - Port-area rail improvements, including on-dock rail enhancements
- Goods Movement Environmental Strategy

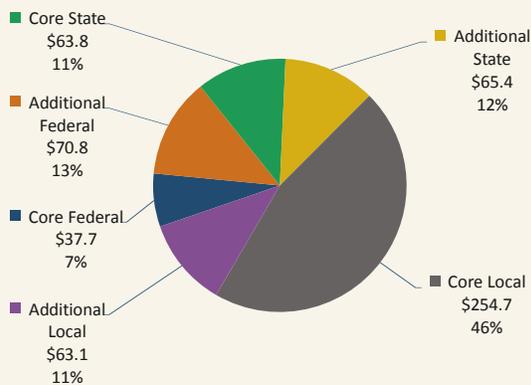
### Aviation

- Support **regionalization of air travel** demand
- Support regional and inter-regional projects that facilitate airport ground access
- Support on-going local planning efforts by
  - Airport operators
  - County Transportation Commissions
  - Local jurisdictions
- Encourage development and use of **transit access** to the region's airports
- Encourage use of modes with high average vehicle occupancy
- Discourage use of modes that require "deadhead" trips to/from airports

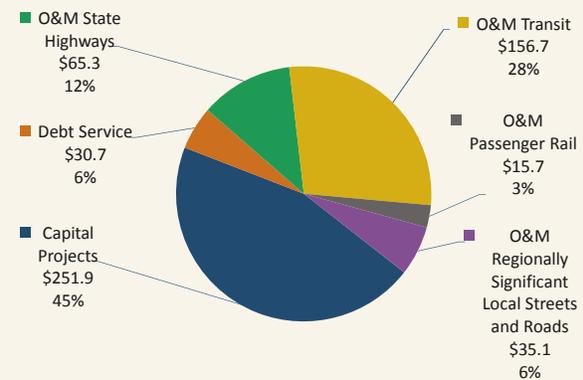
7

## Transportation Committee 2016 RTP/SCS Financial Plan - \$555.4 Billion

### FY16-FY40 RTP/SCS Revenue Sources



### FY15-FY40 RTP/SCS Expenditures



Note: numbers may not sum to total due to rounding

8

## Transportation Committee

### Our Future: Technology

#### Future Mobility: Electric Vehicles & Ridesourcing

##### PEV Goals

- Incentivize over 380,000 Level 1 & 2 Charging stations by 2040
- Encourage use of Neighborhood Electric Vehicles (NEVs)
- Reduce household vehicle ownership by 5% in urban and compact areas
- Encourage Carshare, Peer-2-Peer Carsharing, and Bikeshare
- Encourage shared ridesourcing (Lyft Line / Uber Pool)



9

## Community, Economic & Human Development Committee

10

## Community, Economic & Human Development Committee

### Demographic Research & Economic Analysis

- Directed staff to assess the implications from 2016 RTP/SCS growth forecast, including:
  - Evaluating the impacts of aging Baby Boomers
  - Investigating plausible Southern California future trends in terms of urban form, economic growth, transportation choices of immigrants, native born, Latinos and Millennials
  - Examining demographic and economic trends and their impacts on:
    - Poverty
    - Education & labor force training

11

## Community, Economic & Human Development Committee

### Land Use & Housing

#### RHNA & Housing Element Reform

- Set foundation for the development of 2020 RTP/SCS and 6<sup>th</sup> cycle of Regional Housing Needs Assessment (RHNA)

#### 2016 RTP/SCS Regional Growth Forecasting & Land Use Strategies

- Initiated in June 2013
- Adopted Local Review communication protocols
- Convened Panel of Experts producing regional growth forecast ranges
- Directed staff to meet one-on-one with all local jurisdictions (met 195 out of 197)
- Produced SCAG local jurisdictional Data/Map Books as foundation for local review/input for each jurisdiction in SCAG region
- Adopted guiding principles for policy growth forecast

12

## Community, Economic & Human Development Committee

### Demographic Research & Economic Analysis

#### Adopt Policy Growth Forecast Guiding Principles

***Principle #1: Consistency with Local Input***

Adoption of city/county total – pop, HH, jobs  
is consistent with the Local Input

***Principle #2: Consistency with GP***

Sub-city/county level data consistent with respective general plan  
or any updated input provided by local jurisdictions

13

## Community, Economic & Human Development Committee

### Demographic Research & Economic Analysis

#### Adopt Policy Growth Forecast Guiding Principles

***Principle #3: Local Authority***

CEQA streamlining consistency determination by local lead agencies  
is at locals' sole discretion

***Principle #4: Non-Binding***

Any data at sub-city/county level  
is deemed as advisory

***Principle #5: Written Confirmation***

Received from SCAQMD and CARB  
confirming Non-Binding with the State Implementation Plan

14

# Energy & Environment Committee

15

## Energy & Environment Committee

### Environmental Justice Outreach & Analysis Framework

#### Outreach

- Public Workshop Strategies
  - Held multiple workshops to accommodate diverse range of stakeholders
  - Utilized different formats to encourage input from participants
  - Post online input received
- Diversify Outreach Opportunities
  - Focus groups
  - One-on-one interviews with stakeholders

#### Analysis

- Avoid disproportionate impacts to low-income, minority, and other identified disadvantaged groups
- Thorough approach in analyzing disadvantaged groups and potential impacts of the Plan
- Consider a wide range of alternatives, mitigation, or avoidance measures if impacts are found

16

## Energy & Environment Committee

### 2016 RTP/SCS PEIR Mitigation Measures, Guiding Principles & Performance-Based Approach

- Reviewed and provided feedback to develop the guiding principles and performance-based mitigation approach
- Guiding principles:
  - Maintain flexibilities at project-level while fulfill SCAG's responsibilities as a lead agency in light of recent CEQA case law
  - Recognize SCAG's limited authorities and distinguish SCAG commitments and project-level lead agency responsibilities
  - Facilitate CEQA streamlining and tiering at the project-level, where appropriate
- Performance-based approach to mitigation measures include:
  - SCAG mitigation measures
  - A "catch-all" mitigation measure
  - Project-level mitigation measures
- Approved by the EEC at its October 8<sup>th</sup> meeting

17

## Energy & Environment Committee

### Review 2016 RTP/SCS PEIR Alternatives Analysis Approaches

- The EEC reviewed the approach to the PEIR alternatives analysis at the August 6<sup>th</sup> Joint Policy Committee (including EEC) meeting, and the September 3<sup>rd</sup> and October 8<sup>th</sup> EEC meetings
- Alternatives are **substantively aligned with** the proposed Plan (2016 RTP/SCS) scenarios
- Alternatives are evaluated to assess ability to attain most of the basic objectives and assess their ability to **avoid or substantially lessen** the significant impacts

18

## Energy & Environment Committee

### Review Draft 2016 RTP/SCS PEIR Development Progress Updates

- The EEC at its March 5<sup>th</sup> meeting authorized the release of the Notice of Preparation (NOP) of the Draft 2016 RTP/SCS PEIR for a 30-day public review and comment period
- The EEC reviewed progress updates on the Draft 2016 RTP/SCS PEIR at the July 2<sup>nd</sup> EEC, August 6<sup>th</sup> (Joint Policy Committee), September 3<sup>rd</sup>, and October 8<sup>th</sup> EEC meetings
- Progress updates include:
  - NOP scoping process and stakeholder outreach
  - Draft PEIR outline and contents
  - Legal background and regulatory framework
  - Approaches to addressing air quality/health risk assessment, greenhouse gas emissions and climate change, environmental justice, mitigation measures, and alternatives in the Draft 2016 RTP/SCS PEIR
  - Schedule

19

## Energy & Environment Committee

### Public Health Guiding Principles and Framework

- Reviewed and provided direction on **Public Health Work Program**
- Reviewed and provided direction **Public Health Analysis Framework**
- Approved **Public Health Guiding Principles and Framework**
- Hosted a Special Meeting on **Public Health Focus Areas**

20

## Energy & Environment Committee

### Open Space, Conservation, Natural Lands and Water Resources

- Presented suggested roles for SCAG on natural and farm lands
- Overviewed Conservation Framework & Assessment, Natural Resources GIS database, Existing Information and Data Gaps products provided consultants
- Reported on Local Government and County Transportation Commission survey results on land conservation efforts
- Updated on efforts on Open Space Conservation Working Group
- Overviewed data on local and county level conservation actions
- Presented Consensus Recommendations from the Open Space Conservation Working Group Water Resources
- Received presentation from Amigos De Los Rios on opportunities for advancing mobility, open space and enhanced watershed management goals through integrated planning in river and utility corridors.

21



# 2016 2040 RTPSCS

A PLAN FOR OUR FUTURE

November 5, 2015  
Joint Policy Committee Meeting

22

## Why Update the RTP/SCS?

### Meet 2016 RTP/SCS Performance Objectives

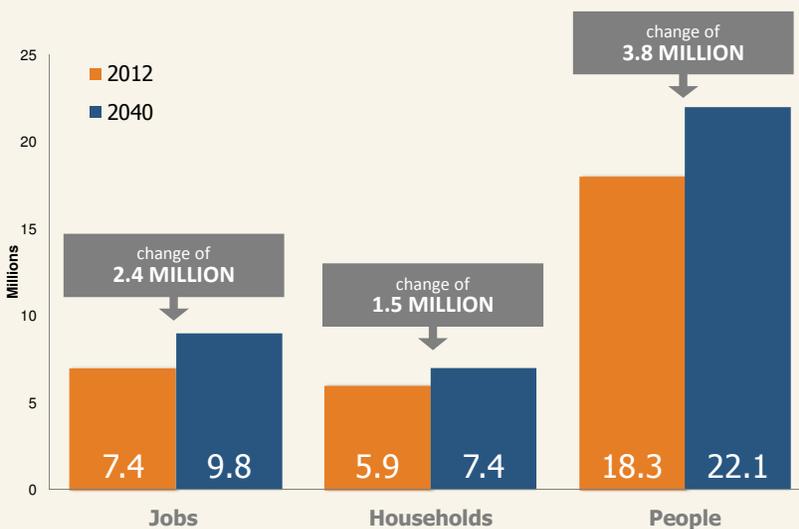
- Move people & goods more efficiently
- Increase accessibility
- Meet all legal & statutory requirements
  - ARB targets
  - Transportation air quality conformity
- Enhance sustainability through integrating land use and transportation resulting in numerous co-benefits
- Align with major trends in demographics & technology



23

## Why Update the RTP/SCS? What's New Since 2012?

### Changes in Growth and Demography



#### EMERGING TRENDS

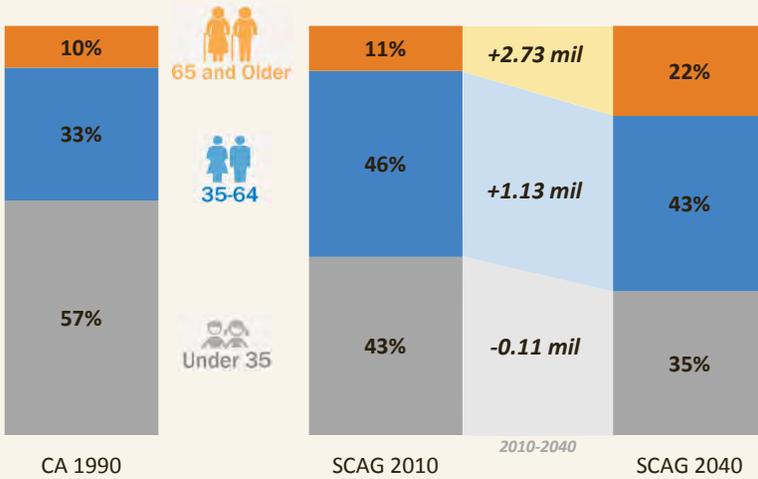
- **Slower Growth**
- Fewer Children
- A Soaring Senior Population
- Increased Demand for Multifamily Housing
- Rapid Technological Advancements

24

## Why Update the RTP/SCS? What's New Since 2012?

### Changes in Growth and Demography

#### Current & Future Population by Age Group



Source: CA Department of Finance, 2014

25

#### EMERGING TRENDS

- Slower Growth
- **Fewer Children**
- **A Soaring Senior Population**
- Increased Demand for Multifamily Housing
- Rapid Technological Advancements

## Why Update the RTP/SCS? What's New Since 2012?

### Rapid Advancements in Technology



#### EMERGING TRENDS

- Slower Growth
- Fewer Children
- A Soaring Senior Population
- Increased Demand for Multifamily Housing
- **Rapid Technological Advancements**

26

## Why Update the RTP/SCS? What's New Since 2012?

### New Federal and State Guidance

#### **Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) signed into law by President Obama in June 2012**

- Funding surface transportation programs at over \$106 billion for FY 2013 and 2014
- MAP-21 is the first long-term highway authorization enacted since 2005
- Creates performance-based surface transportation program
- Builds on highway, transit, bike, and pedestrian programs and policies established in 1991

#### **Governor Brown's Executive Order B-30-15, Call to Action for Greater Reduction in GHG Emissions**

- New Green House Gas (GHG) Target of 40% Below 1990 Levels by 2030
- Most Aggressive Benchmark enacted by any government in North America
- Will help ultimate goal of reducing emissions 80 percent under 1990 levels by 2050

#### **SB 1077: Road Usage Charge Pilot Program**

- Pilot Program to replace gas tax with User/Vehicle Miles Traveled (VMT) Fee
- Moves the Innovative Funding initiatives of 2012 RTP/SCS a step forward

27

## Why Update the RTP/SCS? What's New Since 2012?

### Building from the 2012 RTP/SCS

- Studied and analyzed these emerging demographic and technological trends
- Addressed New Federal and State Guidance
- Created six subcommittees to follow up critical issues identified in the 2012 RTP/SCS
- Worked closely with local governments to develop a growth forecast consistent with general plans and aligned with regional policies
- Collaborated with CTCs to ensure consistency with county transportation plans and projects
- Hosted 23 RTP/SCS Open Houses to get feedback from residents throughout Southern California
- Held dozens of policy discussions with three Policy Committees and Regional Council to get final direction on all facets of the Plan
- Utilized all of this information to recommend the 2016 RTP/SCS

28

## Per Capita GHG Changes from 2005

### Preliminary Scenarios SCAG General Assembly, May 2015



29

## GHG Benefits Update

- ❖ The updated GHG reductions are based on 2014 EMFAC Model Runs
- ❖ The final results reflect full conversion to EMFAC2007 Equivalent
- ❖ The full conversion method is provided by CARB

30

## Draft Plan vs. Scenarios - Greenhouse Gas (GHG) Emissions

### Per Capita Reduction from 2005 (Draft)

Year	SCAG GHG Targets*	2012-2035 RTP/SCS GHG Reductions*	Scenario 2: 2012 RTP/SCS Updated with Local Input**	Draft 2016 RTP/SCS**
2020	8%*	9%*	7%**	8%**
2035	13%*	16%*	15%**	18%**
2040		N/A	19%**	22%**
<b>Meets GHG Targets?</b>		<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Yes</u></b>

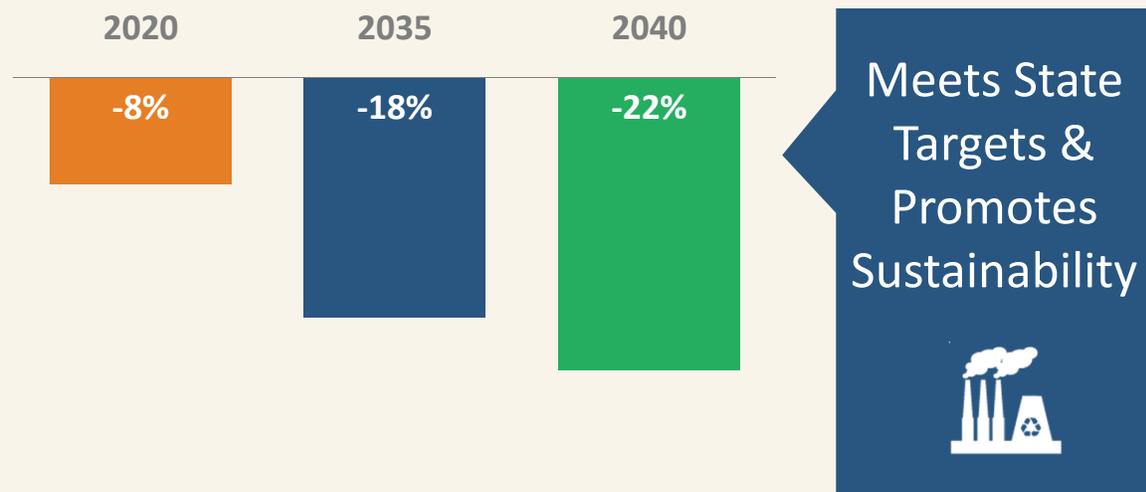
\* Using CARB EMFAC 2007

\*\* EMFAC2007 Equivalent

31

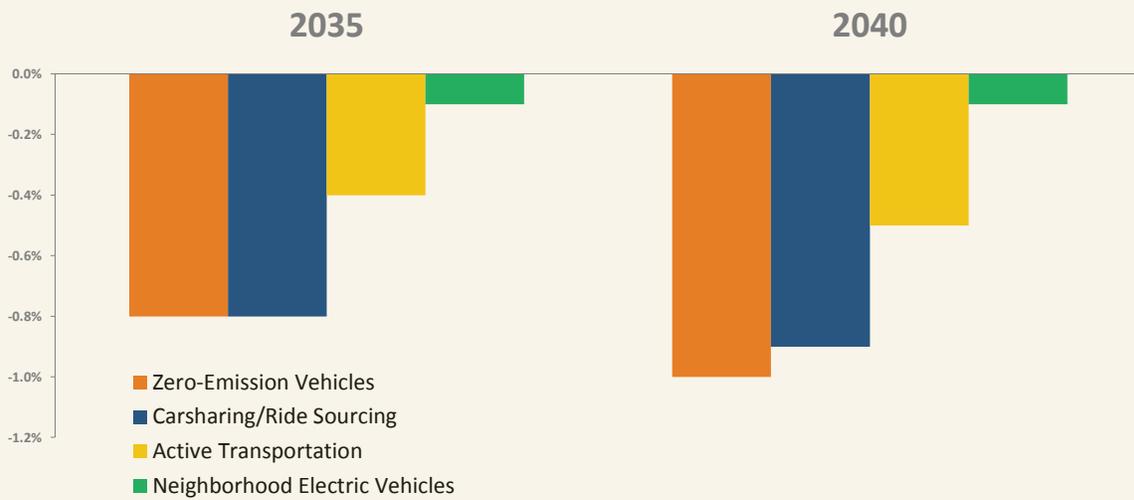
## Greenhouse Gas (GHG) Emissions

### Draft Plan Per Capita Reduction from 2005 (Draft)



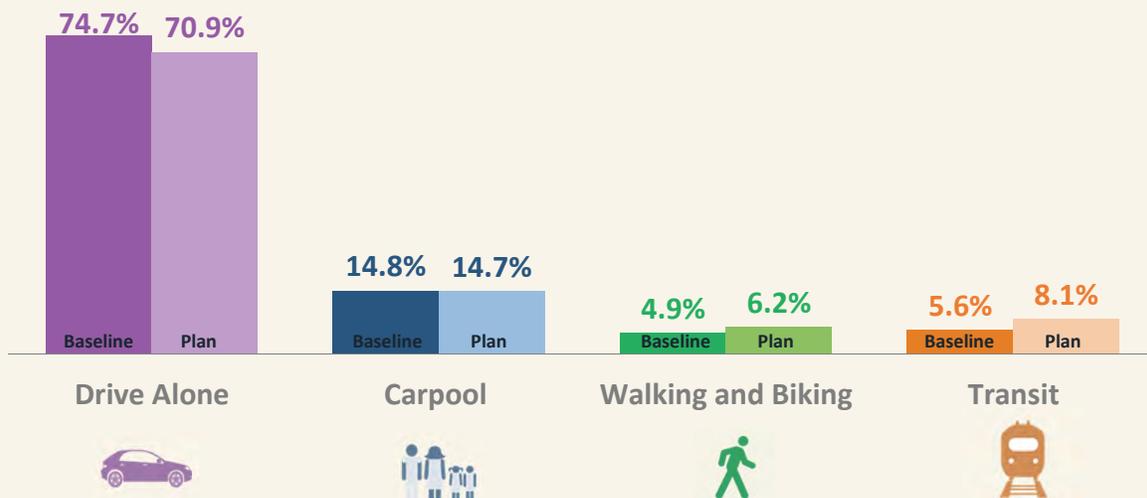
32

## Greenhouse Gas (GHG) Emissions from New Technology & Active Transportation Draft Plan Per Capita Reduction from 2005 (Draft)



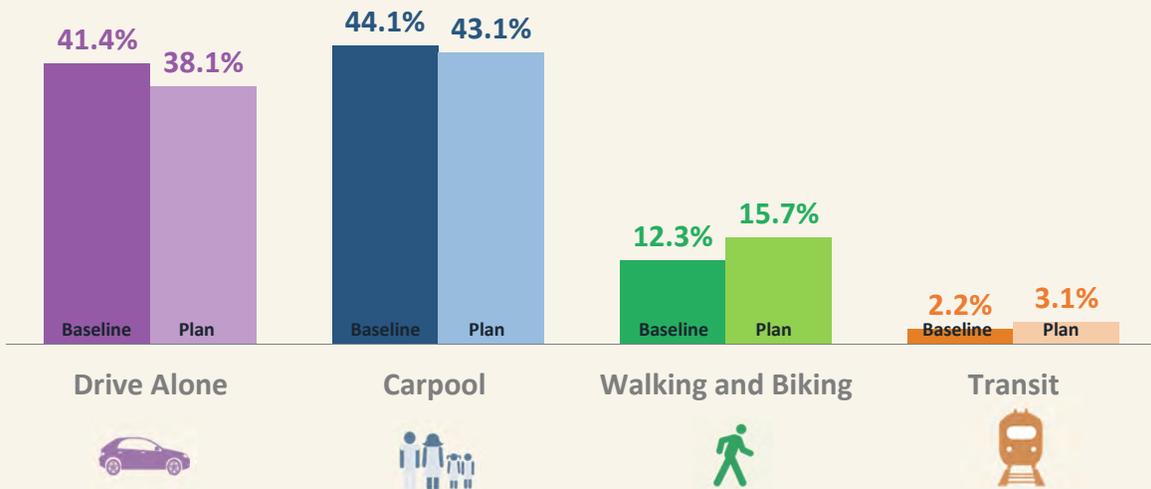
33

## Mode Choice – Work Trips Draft Plan vs. Trend Baseline (Draft)



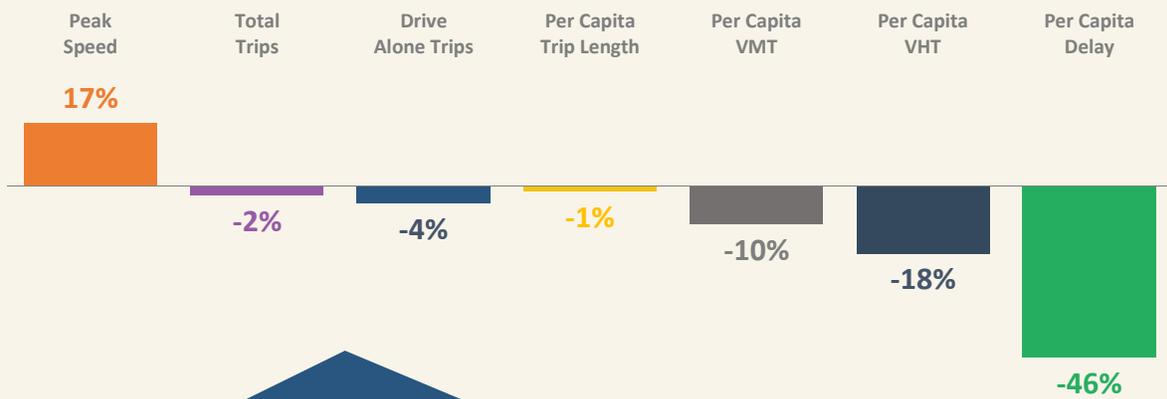
Note: These figures include additional improvements in walking and biking associated with the benefits of certain active transportation investments, which are analyzed as a supplement<sup>34</sup> to SCAG's Regional Trip Based Model

## Mode Choice – Total Trips Draft Plan vs. Trend Baseline (Draft)



Note: These figures include additional improvements in walking and biking associated with the benefits of certain active transportation investments, which are analyzed as a supplement<sup>35</sup> to SCAG's Regional Trip Based Model

## Roadway Results Draft Plan vs. Trend Baseline (Draft)



Increases Mobility

Note: Per Capita VMT takes into account improvements from new technologies and active transportation investments, which were analyzed in supplement to SCAG's Trip Based Model

36

## Options for Our Future - RTP/SCS Scenario Overview

### SCS Co-Benefits – Reduction from Trend Baseline

SCS Co-Benefits	Trend Baseline	Scenario 2 2012 RTP/SCS Updated with Local Input	Draft 2016 RTP/SCS	Scenario 4 Exceeding Expectations (PEIR)
Land Consumption	N/A	-10 %	-23 %	-41 %
Respiratory Health Costs	N/A	-9 %	-13 %	-19 %
Local Infrastructure and Services Costs for New Residential Growth (O&M+ Capital)	N/A	-6 %	-8 %	-11 %
Building Energy Use, cumulative (2012-2040)	N/A	-2 %	-4 %	-5 %
Building Water Use, cumulative (2012-2040)	N/A	-0.4 %	-0.6 %	-1.0 %
Per Household Transportation Costs (fuel + auto)	N/A	-9 %	-13 %	-19 %
Per Household Utilities Costs (energy + water)	N/A	-4 %	-9 %	-11 %

37

## Water Use in 2040

### Draft Plan vs. Trend Baseline (Draft)



**Reduction of  
860,000 Acre-Feet  
In Water  
Consumption**

**Enough for  
151,000 People  
Annually from  
2012 to 2040**

\*Per Capita Water Consumption = 181 Gallons Per Day in California  
(California Water Science Center, US Geological Survey)

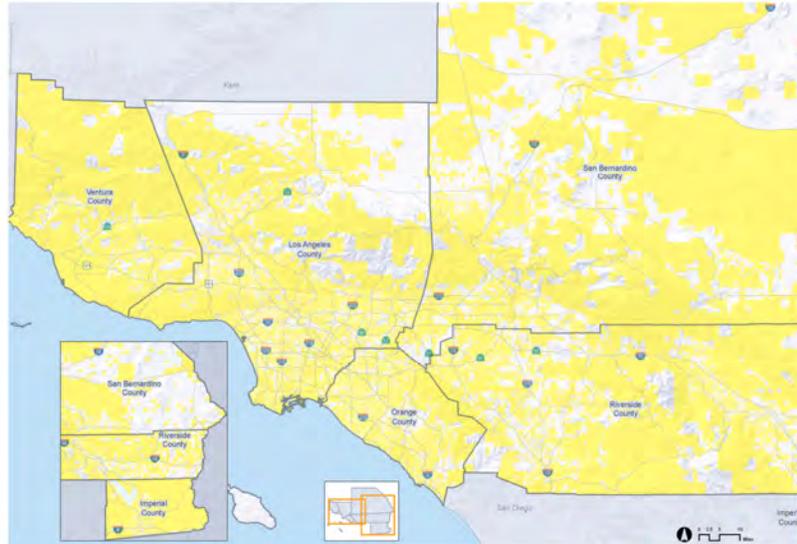
**Total Water Use Acre-Feet Plan minus Baseline (by SPZ)**

Decrease

Source: SCAG Scenario Planning Model

38

## Electricity Use in 2040 Draft Plan vs. Trend Baseline (Draft)



Reduction of  
740 Trillion BTUs  
in Electricity Usage

Enough for  
133,000 People  
Annually from  
2012 to 2040

\*Per Capita Energy Consumption = 200 Million BTU Per Person in California for 2013 (US Energy Information Administration)

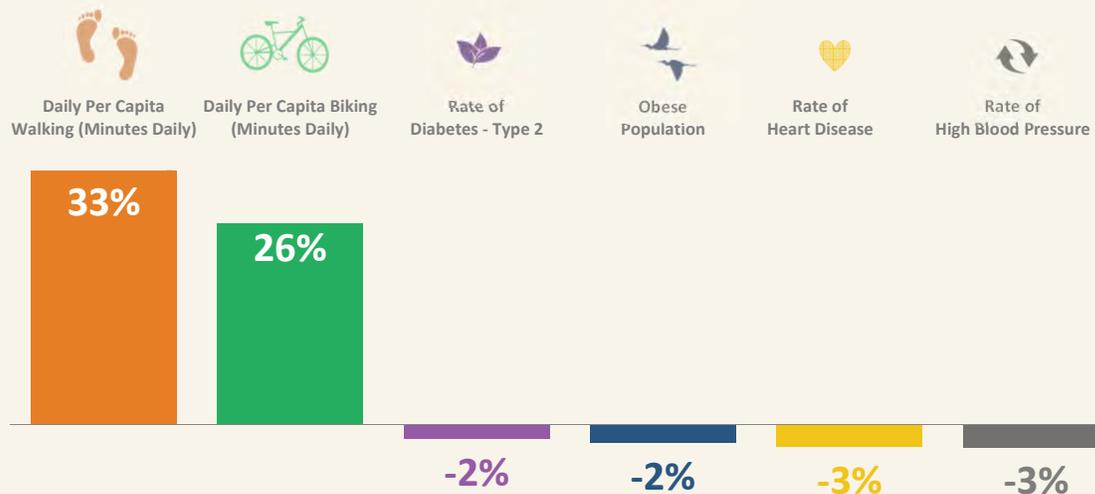
Total Electricity Use Annual Kilo-watt-hour Plan minus Baseline (by SPZ)

Decrease

39

Source: SCAG Scenario Planning Model

## Public Health Outcomes in 2040 – Adults Aged 18-65 Draft Plan vs. Trend Baseline (Draft)



40



# 2016 2040 RTP/SCS

## ECONOMIC & JOB CREATION ANALYSIS

November 5, 2015  
Joint Policy Committee Meeting

41

### **Economic Benefits Background: 2012 SCAG RTP/SCS**

#### **2012 SCAG RTP/SCS Economic Analysis found:**

- Transportation critical for regions key industries
  - Goods Movement/Logistics/International Trade
  - Tourism & Hospitality
  - Entertainment, etc.
- Job Creation from Infrastructure Investment
  - Construction
  - Operations
  - Maintenance
- Network Benefits in the form of Efficiency/Competitiveness Gains
  - Reduced transportation cost to regions business
  - Improves region's competitiveness
  - Continued analysis of specific economic benefits

42

## Academic Findings Increasingly Link Transportation & Economics

In the scholarly literature, two economic transformations have occurred over the past two to three decades that make transportation access an increasingly important for regional metropolitan economies in the U.S.

- **Agglomeration Economies and the Need for Access**

- U.S. Metropolitan economies are increasingly reliant on the value of proximity
- What urban economists call “agglomeration economies”, or the propensity of successful local economies to cluster

- **Congestion and Employment**

- Congestion in most metro areas has risen to levels that, academic research indicates, tends to limit economic growth

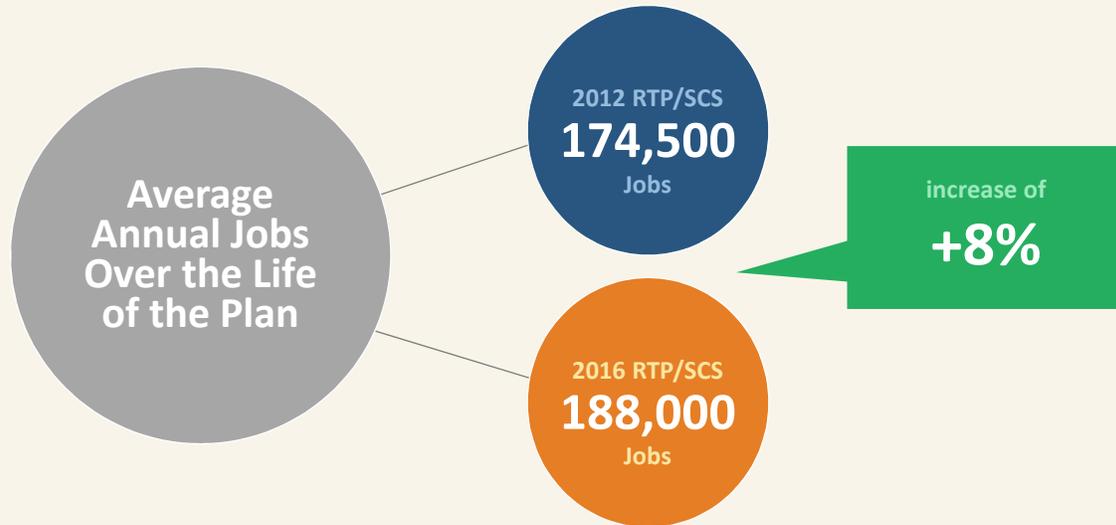
43

## Initial Economic Analysis Activities To Date

- Economic Team used same methodology developed and vetted in 2012
- Foundation is incorporation of SCAG’s Travel Demand Model from 2016 RTP/SCS
- Team worked closely with Regional Economic Models, Inc. (REMI) and SCAG staff to improve accuracy of input of preliminary and final travel demand model data, calibration, simulations
- Ran 20 plus simulations to account for the complexities of the 2016 plan

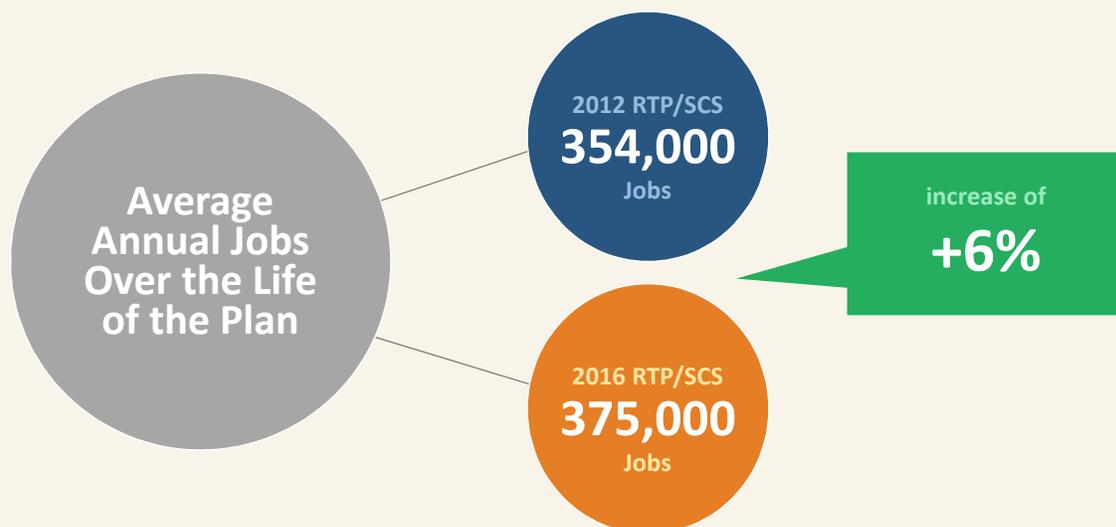
44

## Economic Benefits through 2040 Construction, Operations and Maintenance (Draft)



45

## Economic Benefits through 2040 Network Benefits (Draft)



46

## Upcoming Schedule

**Draft 2016 RTP/SCS & PEIR Release** December 3, 2015

**2016 RTP/SCS Public Comment Period** Minimum 55 Days

**2016 RTP/SCS PEIR Public Comment Period** Minimum 45 Days

**Elected Officials Briefings** January 2016

**Public Hearings** January 2016

**Final Adoption of 2016 RTP/SCS & PEIR** April 7, 2016



47

### RECOMMENDED ACTION

Direct staff to prepare and finalize the Draft 2016 RTP/SCS document based upon the proposed framework and key elements of the plan described in the staff report, and recommend that the Regional Council release the Draft 2016 RTP/SCS for formal public review and comments in December 2015.

48

**Draft Policy Growth Forecast at Jurisdictional Level for Draft 2016 RTP/SCS**

<b>County</b>	<b>CityName</b>	<b>Population 2012</b>	<b>Population 2040</b>	<b>Households 2012</b>	<b>Households 2040</b>	<b>Employment 2012</b>	<b>Employment 2040</b>
25	Brawley city	25,800	42,900	7,600	15,000	8,000	16,800
25	Calexico city	40,200	62,200	10,200	19,300	8,300	17,500
25	Calipatria city	7,600	9,600	1,000	1,600	1,300	2,200
25	El Centro city	44,100	61,000	13,100	19,900	20,300	43,800
25	Holtville city	6,100	8,000	1,800	2,500	1,000	2,000
25	Imperial city	15,800	25,400	4,600	8,800	3,400	9,500
25	Westmorland city	2,300	2,700	600	700	300	500
25	Unincorporated	37,700	70,300	10,400	24,700	16,400	32,300
37	Agoura Hills city	20,500	22,700	7,300	8,200	12,500	15,300
37	Alhambra city	84,000	88,800	29,300	31,900	28,000	33,500
37	Arcadia city	56,700	65,900	19,600	22,900	28,900	34,400
37	Artesia city	16,600	18,000	4,500	5,000	5,000	5,800
37	Avalon city	3,800	5,100	1,500	2,100	2,500	3,000
37	Azusa city	47,100	55,000	12,800	15,600	16,600	20,600
37	Baldwin Park city	76,100	83,600	17,200	19,300	16,500	19,500
37	Bell city	35,700	36,900	8,900	9,200	12,400	13,700
37	Bellflower city	77,100	79,600	23,700	24,400	13,600	14,700
37	Bell Gardens city	42,300	44,000	9,700	10,100	9,400	10,500
37	Beverly Hills city	34,400	37,200	14,900	16,200	57,700	68,900
37	Bradbury city	1,100	1,200	400	400	100	200
37	Burbank city	103,300	118,700	42,500	48,400	106,800	145,000
37	Calabasas city	23,800	24,500	8,700	9,100	16,700	17,300
37	Carson city	92,000	107,900	25,300	30,800	58,500	69,700
37	Cerritos city	49,300	50,900	15,500	16,000	30,400	33,700
37	Claremont city	35,500	39,400	11,700	13,200	17,400	19,700
37	Commerce city	12,900	13,500	3,400	3,600	44,600	49,100
37	Compton city	97,300	100,900	23,100	24,000	25,400	28,200
37	Covina city	48,200	51,600	15,900	17,200	25,300	29,500
37	Cudahy city	23,800	23,800	5,600	5,600	2,900	2,900
37	Culver City city	39,100	40,700	16,800	17,500	44,100	53,000
37	Diamond Bar city	56,000	63,900	17,900	21,200	15,400	19,300
37	Downey city	112,500	121,700	33,900	37,300	47,500	53,000
37	Duarte city	21,500	24,300	7,000	8,200	10,100	11,900
37	El Monte city	114,200	137,200	27,800	34,700	28,000	35,700
37	El Segundo city	16,700	17,300	7,100	7,400	38,400	45,400
37	Gardena city	59,400	68,700	20,600	24,200	28,900	33,500
37	Glendale city	193,200	214,000	72,400	81,100	111,300	127,000
37	Glendora city	50,500	54,300	17,200	18,900	20,000	23,000
37	Hawaiian Gardens city	14,300	15,900	3,600	4,000	4,800	5,600
37	Hawthorne city	85,300	87,000	28,600	30,000	27,200	32,100
37	Hermosa Beach city	19,600	20,400	9,500	9,800	7,400	10,000
37	Hidden Hills city	1,900	2,000	600	600	300	300
37	Huntington Park city	58,500	67,400	14,600	17,400	15,600	18,600
37	Industry city	500	500	100	100	67,700	74,700
37	Inglewood city	110,900	129,000	36,600	43,300	31,100	37,400
37	Irwindale city	1,400	2,000	400	500	18,800	21,500
37	La Cañada Flintridge city	20,400	21,600	6,900	7,300	6,500	8,300
37	La Habra Heights city	5,400	6,200	1,800	1,900	200	400
37	Lakewood city	80,600	84,700	26,600	28,200	18,900	21,400
37	La Mirada city	48,800	52,100	14,700	15,800	17,400	20,200
37	Lancaster city	158,300	209,900	47,400	65,300	45,800	59,600
37	La Puente city	40,100	50,200	9,500	12,400	6,300	8,700
37	La Verne city	31,800	32,900	11,400	12,100	12,200	14,300
37	Lawndale city	33,000	33,900	9,700	10,100	6,700	8,200
37	Lomita city	20,500	21,200	8,100	8,400	4,600	5,400
37	Long Beach city	466,300	484,500	163,800	175,500	153,200	181,700
37	Los Angeles city	3,845,500	4,609,400	1,325,500	1,690,300	1,696,400	2,169,100
37	Lynwood city	70,300	76,100	14,700	16,200	9,200	10,900
37	Malibu city	12,700	14,100	5,300	5,600	8,500	10,300

**Draft Policy Growth Forecast at Jurisdictional Level for Draft 2016 RTP/SCS**

<b>County</b>	<b>CityName</b>	<b>Population 2012</b>	<b>Population 2040</b>	<b>Households 2012</b>	<b>Households 2040</b>	<b>Employment 2012</b>	<b>Employment 2040</b>
37	Manhattan Beach city	35,300	37,100	14,000	14,800	18,000	20,700
37	Maywood city	27,500	28,900	6,600	6,900	3,600	4,000
37	Monrovia city	36,800	40,300	13,800	15,300	19,700	23,300
37	Montebello city	63,000	67,300	19,100	21,000	27,500	30,800
37	Monterey Park city	61,300	65,000	20,200	21,500	32,500	36,500
37	Norwalk city	105,900	106,300	27,100	27,200	24,100	27,300
37	Palmdale city	154,200	201,500	43,100	59,300	29,300	40,300
37	Palos Verdes Estates city	13,600	13,900	5,100	5,200	2,300	2,900
37	Paramount city	54,500	58,000	13,900	14,800	19,600	22,300
37	Pasadena city	140,300	150,700	58,900	62,400	111,000	144,800
37	Pico Rivera city	63,400	69,100	16,600	18,400	18,900	22,400
37	Pomona city	150,500	190,400	38,600	51,100	55,100	67,200
37	Rancho Palos Verdes city	42,000	42,300	15,600	15,700	5,800	6,200
37	Redondo Beach city	67,200	74,400	29,000	33,000	24,000	29,800
37	Rolling Hills city	1,900	2,000	700	700	100	100
37	Rolling Hills Estates city	8,100	8,600	3,000	3,100	5,900	6,800
37	Rosemead city	54,300	60,800	14,300	16,400	13,700	16,200
37	San Dimas city	33,600	34,500	12,000	12,400	11,200	12,700
37	San Fernando city	23,900	26,900	6,000	7,000	10,900	12,700
37	San Gabriel city	40,100	46,900	12,600	15,300	14,100	16,800
37	San Marino city	13,200	13,300	4,300	4,400	3,600	4,200
37	Santa Clarita city	202,000	262,200	67,300	90,300	73,500	95,900
37	Santa Fe Springs city	16,600	21,700	4,800	6,500	54,600	62,000
37	Santa Monica city	90,700	103,400	47,100	53,900	89,600	103,700
37	Sierra Madre city	11,000	11,200	4,800	5,000	1,900	2,100
37	Signal Hill city	11,200	12,000	4,200	4,600	13,800	16,500
37	South El Monte city	20,300	22,500	4,600	5,200	15,700	17,800
37	South Gate city	94,700	111,800	23,200	28,300	20,400	24,000
37	South Pasadena city	25,800	27,100	10,500	11,100	9,300	10,500
37	Temple City city	35,900	40,600	11,600	13,500	6,900	8,400
37	Torrance city	146,500	159,800	56,100	62,000	102,300	117,600
37	Vernon city	100	300	0	100	43,200	46,100
37	Walnut city	29,800	33,800	8,700	10,400	8,400	9,900
37	West Covina city	107,000	116,700	31,700	35,000	29,500	34,300
37	West Hollywood city	34,800	41,800	22,600	27,800	29,800	37,300
37	Westlake Village city	8,300	8,800	3,300	3,500	13,300	15,900
37	Whittier city	85,900	96,900	28,300	32,600	26,900	31,700
37	Unincorporated	1,040,700	1,273,700	292,700	392,400	222,900	288,400
59	Aliso Viejo city	49,300	51,000	18,500	19,400	18,900	20,900
59	Anaheim city	345,300	403,400	99,200	122,600	177,900	245,600
59	Brea city	41,100	50,600	14,500	18,100	46,700	53,700
59	Buena Park city	81,800	92,500	24,000	27,900	34,300	39,800
59	Costa Mesa city	111,200	116,400	40,000	42,500	84,400	93,200
59	Cypress city	48,500	49,700	15,700	16,300	22,100	27,700
59	Dana Point city	33,800	35,800	14,200	15,300	11,900	14,100
59	Fountain Valley city	56,000	59,300	18,700	19,900	30,400	34,900
59	Fullerton city	138,000	160,500	45,500	55,200	60,800	94,100
59	Garden Grove city	172,900	178,200	46,200	48,200	51,700	58,500
59	Huntington Beach city	193,200	207,100	74,900	81,200	75,800	87,000
59	Irvine city	227,100	327,300	81,800	123,400	224,400	320,000
59	Laguna Beach city	23,100	23,100	10,800	11,000	12,100	14,100
59	Laguna Hills city	30,600	31,500	10,400	10,900	18,500	19,400
59	Laguna Niguel city	63,900	72,000	24,300	27,700	18,300	22,100
59	Laguna Woods city	16,500	17,100	11,400	11,700	4,400	6,500
59	La Habra city	61,100	68,500	19,000	21,700	17,300	19,900
59	Lake Forest city	78,500	90,700	26,300	30,500	39,200	49,000
59	La Palma city	15,800	15,800	5,100	5,100	7,700	8,500
59	Los Alamitos city	11,600	12,100	4,100	4,200	14,200	15,600
59	Mission Viejo city	94,500	96,600	33,200	34,100	37,100	39,100
59	Newport Beach city	86,300	92,700	38,800	41,700	76,000	79,100

**Draft Policy Growth Forecast at Jurisdictional Level for Draft 2016 RTP/SCS**

<b>County</b>	<b>CityName</b>	<b>Population 2012</b>	<b>Population 2040</b>	<b>Households 2012</b>	<b>Households 2040</b>	<b>Employment 2012</b>	<b>Employment 2040</b>
59	Orange city	138,500	153,000	43,600	49,300	94,100	105,500
59	Placentia city	51,500	58,400	16,600	18,900	19,000	23,500
59	Rancho Santa Margarita city	48,500	48,700	16,700	16,800	17,200	19,500
59	San Clemente city	64,400	68,000	24,000	25,300	24,800	29,500
59	San Juan Capistrano city	35,200	39,500	11,500	13,300	14,700	17,900
59	Santa Ana city	329,200	343,100	73,300	78,000	154,800	166,000
59	Seal Beach city	24,400	24,800	13,000	13,300	11,000	12,300
59	Stanton city	38,700	41,600	10,700	11,800	7,200	8,500
59	Tustin city	77,300	83,000	25,600	27,900	37,600	66,400
59	Villa Park city	5,900	6,100	2,000	2,000	1,500	1,700
59	Westminster city	91,000	92,800	26,200	26,800	24,200	26,400
59	Yorba Linda city	66,200	70,500	21,900	23,400	15,600	17,700
59	Unincorporated	120,700	180,100	37,800	56,900	20,700	41,200
65	Banning city	30,100	37,600	10,800	14,000	7,300	14,200
65	Beaumont city	39,400	80,600	12,400	27,200	5,900	18,000
65	Blythe city	20,000	24,600	4,500	6,200	3,700	6,600
65	Calimesa city	8,100	24,800	3,300	10,900	1,300	5,900
65	Canyon Lake city	10,700	11,300	3,900	4,100	1,200	2,700
65	Cathedral City city	52,200	68,100	17,100	26,000	10,800	21,200
65	Coachella city	42,400	146,300	9,200	40,100	8,500	34,400
65	Corona city	156,000	172,300	45,300	52,000	66,400	88,400
65	Desert Hot Springs city	27,800	58,900	9,100	21,900	3,700	12,900
65	Eastvale City	56,500	65,400	14,100	16,500	4,300	9,800
65	Hemet city	80,800	126,500	30,300	52,200	21,000	45,500
65	Indian Wells city	5,100	7,200	2,800	4,400	4,000	7,000
65	Indio city	78,800	123,300	23,800	39,300	16,000	36,800
65	Lake Elsinore city	54,100	111,400	15,200	35,000	11,800	31,700
65	La Quinta city	38,300	47,700	14,900	19,100	12,400	21,500
65	Menifee city	81,600	121,100	28,400	48,100	10,300	23,500
65	Moreno Valley city	197,600	256,600	51,800	73,000	31,400	83,200
65	Murrieta city	105,600	129,800	32,800	43,500	23,200	45,100
65	Norco city	26,900	32,100	7,000	9,200	13,200	25,700
65	Palm Desert city	49,800	61,700	23,400	31,400	36,900	53,600
65	Palm Springs city	45,600	56,900	22,900	31,300	26,300	45,800
65	Perris city	70,700	116,700	16,600	32,700	15,100	32,200
65	Rancho Mirage city	17,600	25,000	8,900	13,600	12,300	20,500
65	Riverside city	310,700	386,600	92,400	118,600	120,000	200,500
65	San Jacinto city	45,100	79,900	13,200	27,600	5,900	17,800
65	Temecula city	104,100	137,400	32,500	42,900	43,000	63,500
65	Wildomar city	33,000	56,200	10,100	18,100	5,000	13,500
65	Jurupa Valley City	97,000	114,500	25,000	30,400	24,500	32,600
65	Unincorporated	359,500	487,500	112,700	159,200	71,300	160,200
71	Adelanto city	31,100	70,000	7,900	18,100	3,900	7,800
71	Apple Valley town	70,200	100,600	23,700	34,800	15,400	27,600
71	Barstow city	23,100	35,100	8,100	12,900	8,100	16,800
71	Big Bear Lake city	5,100	6,900	2,200	3,000	3,800	5,400
71	Chino city	79,400	120,400	21,000	34,000	42,600	50,600
71	Chino Hills city	75,800	94,900	23,000	28,300	11,500	18,600
71	Colton city	52,800	69,100	15,000	20,800	16,800	29,200
71	Fontana city	200,200	280,900	49,600	74,000	47,000	70,800
71	Grand Terrace city	12,200	14,200	4,400	5,700	2,200	5,300
71	Hesperia city	91,100	129,100	26,400	39,100	14,900	28,300
71	Highland city	53,700	66,900	15,500	20,600	5,500	10,200
71	Loma Linda city	23,400	29,300	8,800	11,800	16,700	21,100
71	Montclair city	37,200	42,700	9,600	11,600	16,500	19,000
71	Needles city	4,900	7,000	1,900	2,800	2,200	3,800
71	Ontario city	166,300	258,600	45,100	75,300	103,300	175,400
71	Rancho Cucamonga city	170,100	204,300	55,400	73,100	69,900	104,600
71	Redlands city	69,600	85,500	24,800	32,400	31,700	53,400
71	Rialto city	100,800	112,000	25,400	31,500	21,100	30,500

**Draft Policy Growth Forecast at Jurisdictional Level for Draft 2016 RTP/SCS**

<b>County</b>	<b>CityName</b>	<b>Population 2012</b>	<b>Population 2040</b>	<b>Households 2012</b>	<b>Households 2040</b>	<b>Employment 2012</b>	<b>Employment 2040</b>
71	San Bernardino city	211,900	257,400	59,300	77,100	88,900	128,900
71	Twentynine Palms city	25,900	37,300	8,300	11,400	4,300	8,500
71	Upland city	74,700	81,700	25,900	28,900	31,700	43,500
71	Victorville city	119,600	184,500	33,100	55,400	29,800	52,700
71	Yucaipa city	52,300	72,500	18,400	28,200	8,200	15,000
71	Yucca Valley town	21,000	26,300	8,300	12,200	6,100	10,000
71	Unincorporated	295,600	344,100	94,200	111,300	57,400	91,100
111	Camarillo city	66,300	79,900	24,800	30,200	35,800	47,300
111	Fillmore city	18,800	21,800	5,200	6,300	3,000	5,300
111	Moorpark city	34,800	43,000	10,600	13,100	11,300	16,600
111	Ojai city	7,500	8,400	3,100	3,300	5,100	5,300
111	Oxnard city	200,100	237,300	50,100	60,100	58,100	79,200
111	Port Hueneme city	21,800	22,400	7,100	7,300	6,400	6,700
111	San Buenaventura (Ventura) city	106,700	125,300	40,700	48,400	60,700	66,000
111	Santa Paula city	29,800	39,600	8,500	11,500	7,800	11,700
111	Simi Valley city	125,100	142,400	41,300	47,400	44,000	61,100
111	Thousand Oaks city	127,800	131,700	45,900	47,200	68,200	81,900
111	Unincorporated	96,700	113,600	32,100	37,500	31,800	38,700

Note: Rounded to the nearest 100, may not add up to rounded county figures due to separate rounding process.

Reflecting local input as of July 31, 2015, input received after July 31, 2015 will be incorporated into final plan before April 2016.

**DATE:** December 3, 2015

**TO:** Regional Council (RC)

**FROM:** Community, Economic and Human Development (CEHD) Committee  
Energy and Environment Committee (EEC)  
Transportation Committee (TC)

**BY:** Hasan Ikhata, Executive Director, 213-236-1944, [ikhata@scag.ca.gov](mailto:ikhata@scag.ca.gov)

**SUBJECT:** Release of the Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS)

---

**RECOMMENDED ACTION:**

Based upon the joint recommendation of SCAG's three (3) Policy Committees, release the Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (hereinafter referred to either as the "2016 RTP/SCS" or the "Plan") for a 60-day public review and comment period, concurrent with the 60-day public review and comment period for the Draft 2016 RTP/SCS PEIR, beginning December 4, 2015 and ending February 1, 2016.

**EXECUTIVE SUMMARY:**

*Over the last several months, SCAG's Regional Council and Policy Committees have been discussing the key elements of the Draft 2016 RTP/SCS culminating on November 5, 2015 with a joint recommendation from CEHD, EEC and TC for the Regional Council to approve the official release of the Draft 2016 RTP/SCS. In order to allow more time to review the Draft 2016 RTP/SCS, the public comment period is changed to 60-days, commencing December 4, 2015 and ending February 1, 2016 concurrent with the Draft 2016 RTP/SCS PEIR.*

*The Draft 2016 RTP/SCS Executive Summary is attached to this report for your review. The complete Draft 2016 RTP/SCS and its corresponding Appendices are available on our website at <http://scagrtpscs.net/Pages/Draft2016RTPSCS.aspx>*

**STRATEGIC PLAN:**

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

**BACKGROUND:**

Every four years, SCAG, as the Metropolitan Planning Organization (MPO) for the six-county region of Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial, is required by federal law (23 USCA §134 et seq.) to prepare and update a long-range (minimum of 20 years) Regional Transportation Plan (RTP) that provides for the development and integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG metropolitan planning area. In addition, because the SCAG region is designated as nonattainment for ozone or carbon monoxide under the Clean Air Act (42 U.S.C. §7401 et seq.), the RTP must conform to applicable air quality standards. The passage of California Senate Bill 375 (SB 375) in 2008 requires that an MPO prepare and adopt a Sustainable Communities Strategy (SCS) that

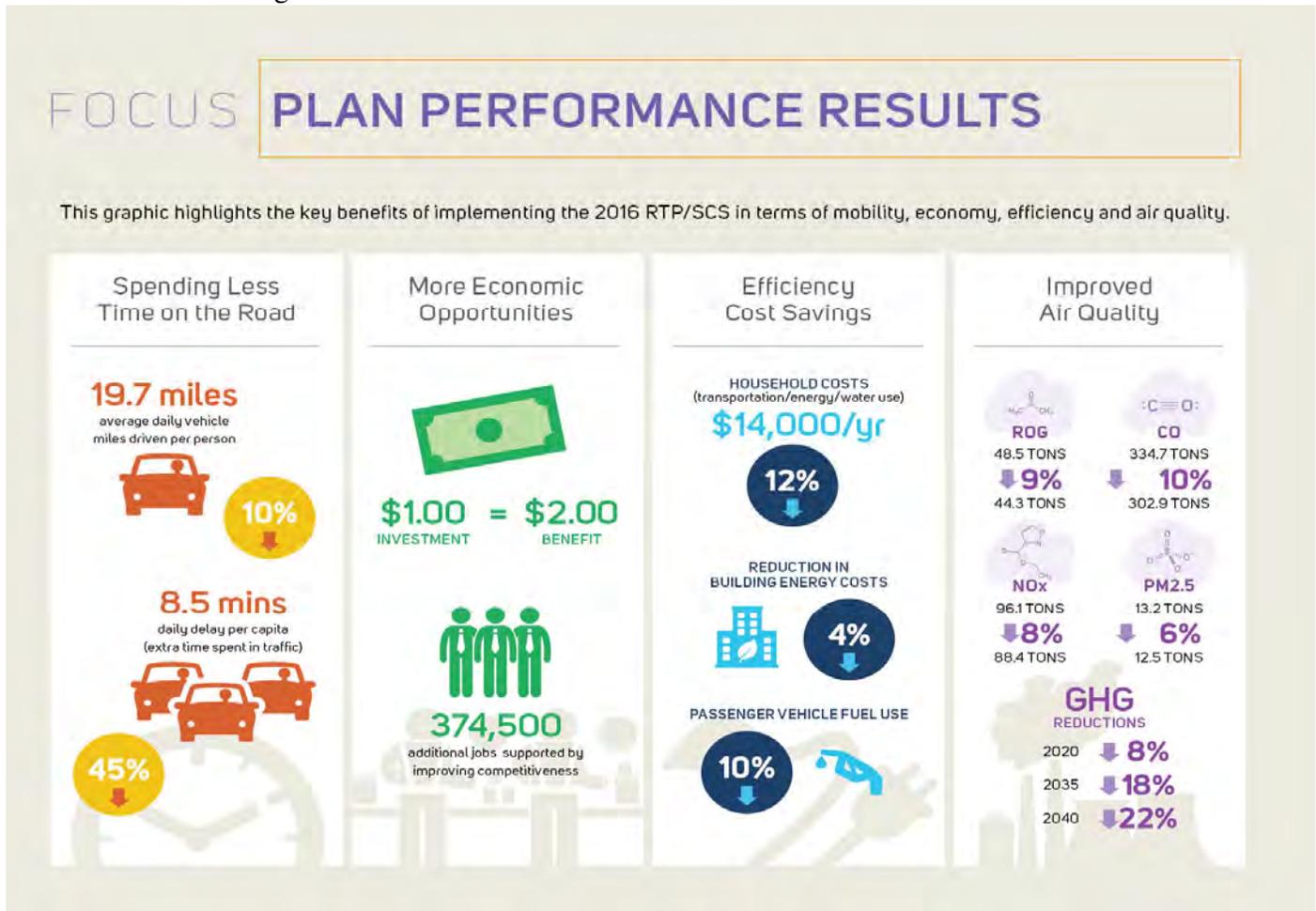
# REPORT

sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce greenhouse gas emissions from automobiles and light duty trucks (Govt. Code §65080(b)(2)(B)). The SCS outlines certain land use growth strategies that provide for more integrated land use and transportation planning, and maximizes transportation investments. The SCS is intended to provide a regional land use policy framework that local governments may consider and build upon.

SCAG staff is pleased to present to the Regional Council the Draft 2016 RTP/SCS, which builds from many of the policies in the currently approved 2012 RTP/SCS. During the last three years, SCAG staff has worked to develop a comprehensive update of the current Plan that we believe provides good options for the future of the SCAG region. Over the last several months, SCAG’s Regional Council and Policy Committees have jointly discussed the key elements of the Draft 2016 RTP/SCS culminating on November 5, 2015 with a joint recommendation from CEHD, EEC and TC for SCAG staff to finalize the Draft Plan and for the Regional Council to approve today the official release of the Draft 2016 RTP/SCS for public review and comment.

As further detailed in the Executive Summary, the Draft 2016 RTP/SCS proposes to invest over \$556.5 billion between 2016 and 2040 to significantly improve every component of our multi-modal transportation system and strategically integrate land use strategies with transportation investments, resulting in greater economic opportunity and a higher quality of life in the region.

Investments and strategies in the Plan will result in:



## Summary of the November 5 Joint Meeting of the Policy Committees (CEHD, EEC, TC)

A number of public comments were received by the Policy Committees at the Joint Policy Committee meeting that were mostly supportive of the Draft 2016 RTP/SCS. Most of the comments received were positive and related to support for the Active Transportation and Public Health elements contained in the Draft Plan and the willingness of the speakers and the organizations they represented to continue to engage with staff on further refining these issues through and beyond the Plan adoption.

The Joint Policy Committee members' discussion was focused on a select number of issues: High-Speed Rail; Mileage-Based User Fee; Regional Aviation and criteria for project inclusion.

The Draft Plan includes support for the proposed California High-Speed Rail Phase 1 project as well as funding projects associated with the Memorandum of Understanding (MOU) in the constrained portion of the Draft 2016 RTP/SCS based upon the collective approve of the Policy Committee members on November 5, 2015. This MOU is between CHSRA, SCAG and several of the region's local transportation agencies to fund \$1 billion of local rail improvement projects and was approved by the SCAG Regional Council on February 2, 2012. The Transportation Committee approved the passenger rail strategy and framework proposed in the Draft 2016 RTP/SCS on September 3, 2015, which includes these projects.

In the 2012 RTP/SCS, SCAG became the first MPO in the country to include in the financial plan a Mileage Based User Fee as a replacement to the gas tax in the outer years of the plan. Since that time, the Governor has signed SB 1077, creating a task force to further study a Mileage Based User Fee in California. The Transportation Committee took action on September 3, 2015, and the Policy Committees took action jointly on November 5, 2015, to include a Mileage Based User Fee program or equivalent revenue strategy as one of the possible reasonably available revenue sources for inclusion in the Plan.

To address concerns raised by some Policy Committee members at the November 5, 2015 Joint Policy Committee meeting, the Draft 2016 RTP/SCS clarifies that a Mileage Based User Fee program should feature specific governance, accountability, and approaches for protecting privacy as well as address income and geographic (e.g., rural vs. urban) equity impacts.

With respect to Regional Aviation, on August 6, 2015, the Transportation Committee held a special meeting on the Regional Aviation Forecast and approved for inclusion in the Draft Plan the use of a regional passenger demand distribution estimated at 136.2 million annual passengers in 2040 and an approach to distributing the growth to the region's twelve commercial airports. The Draft Plan is consistent with this action. To address a public comment received at the November 5, 2015 Joint Policy Committee meeting regarding adequate support for regionalization policy in the Plan, the Draft 2016 RTP/SCS maintains the importance of regionalization of aviation demand and recognizes that additional actions to realize its full implementation will be explored post-adoption of the 2016 RTP/SCS. Further, the airport impact analysis will be based on the higher range of the demand at the airports where ranges were assigned in order to simulate the worst case scenario from airport-related impacts.

Finally, regarding the criteria for project inclusion, SCAG's planning process and the Draft 2016 RTP/SCS respect the local planning process on specific projects. For projects that are still going through the local review process, there is adequate flexibility within the regional planning process to

allow SCAG to reflect the locally selected project specifics at the conclusion of the local review process, either through a special amendment to the RTP/SCS or through future updates.

## Highlights of the Draft 2016 RTP/SCS

The remainder of the staff report provides key highlights of the proposed Draft 2016 RTP/SCS.

### *Our Vision*

The Plan envisions vibrant, livable communities that are healthy and safe and which offer transportation options that provide timely access to schools, jobs, services, health care and other basic needs. These communities will be conducive to walking and bicycling and offer residents improved access to parks and natural lands. Collectively, these communities will support opportunities for business, investment and employment, fueling a more prosperous economy. This vision recognizes the region's tremendous diversity and that "one-size fits all" solutions are not practical or feasible.

### *Integrating Land Use and Transportation*

The Draft 2016 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain our resources and expand efficiency, mobility and accessibility for people across the region. The integrated strategies, programs and projects included in the Plan are designed to improve a region with very specific changes underway: Over the next 25 years, our region's population is projected to grow by more than 20 percent, from about 18 million people to more than 22 million people. Diverse households will reside in all types of communities, including urban centers, cities, towns, suburban neighborhoods and rural areas. Much of the region will continue to be populated by households living in detached single-family dwellings located in lower-density suburban areas. However, 67 percent of new residences will be higher density multifamily housing, built as infill development within High Quality Transit Areas (described further below). We anticipate that households will demand more direct and easier access to jobs, schools, shopping, healthcare and entertainment, especially as Millennials mature and seniors grow in number. Our Southern California region will remain a vital gateway for goods and services, an international center for innovation in numerous industries and a place that offers its residents a high standard of living. We know that our future growth will add new pressures to our transportation system and to our communities. However, through long-term planning that integrates strategies for transportation and land use, we can ensure that our region grows in ways that enhance our mobility, sustainability and quality of life.

### *Major Transportation Initiatives and Sustainable Communities Strategies*

The Draft 2016 RTP/SCS includes several major transportation initiatives and Sustainable Communities Strategies that will move us in the direction towards achieving our vision for 2040.

- **Preserving the transportation system we already have (Fix it First):** The Draft 2016 RTP/SCS calls for the investment of \$274.9 billion toward preserving our existing system. The allocation of these expenditures includes the transit and passenger rail system, the state highway system, and regionally significant local streets and roads.
- **Expanding the regional transit system to give people more alternatives to driving alone:** The Draft 2016 RTP/SCS includes \$56.1 billion for capital transit projects and \$156.7 billion for operations and maintenance. This includes significant expansion of the Metro subway and Light

Rail Transit (LRT) system in Los Angeles County. Meanwhile, new Bus Rapid Transit (BRT) routes will expand higher speed bus service regionally; new streetcar services will link major destinations in Orange County; and new Metrolink extensions will better connect communities in the Inland Empire. Other extensive improvements are planned for local bus, rapid bus, BRT and express service throughout the region. To make transit a more attractive and viable option for people, the 2016 RTP/SCS also supports implementing and expanding transit signal priority, regional and inter-county fare agreements and media, increased bicycle carrying capacity on transit and rail vehicles, real-time passenger information systems to allow travelers to make more informed decisions, and implementing first/last mile strategies to extend the effective reach of transit.

- **Expanding passenger rail:** The Draft 2016 RTP/SCS plans for an investment in passenger rail of \$38.6 billion for capital projects and \$15.7 billion for operations and maintenance. The Plan calls for maintaining the commitments in the 2012 RTP/SCS and the High Speed Rail Memorandum of Understanding (MOU), which identifies a candidate project list to improve the Metrolink system and the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor, thereby providing immediate, near-term benefits to the region while laying the groundwork for future integration with California's High Speed Rail project. These capital projects will bring segments of the regional rail network up to the federally defined speed of 110 miles per hour or greater, and help lead to a blended system of rail services.
- **Improving highways and arterials:** The Draft 2016 RTP/SCS calls for investing \$54.5 billion for capital projects and \$102.5 billion for operations and maintenance toward strategies to improve efficiency of our highway and arterial system throughout the region. This includes focusing on achieving maximum productivity by adding capacity primarily by closing gaps in the system and improving access, and other measures. The plan also continues to support a regional network of High Occupancy Toll (HOT) Lanes building on the success of the SR-91 Express Lanes in Orange County, and I-10 and I-110 Express Lanes in Los Angeles County.
- **Managing demands on the transportation system:** The Draft 2016 RTP/SCS calls for investing \$6.9 billion toward Transportation Demand Management (TDM) strategies throughout the region. These strategies focus on reducing the number of drive-alone trips and overall vehicle miles traveled (VMT) through ridesharing, which includes carpooling, vanpooling and supportive policies for shared ride services such as Uber and Lyft; redistributing or eliminating vehicle trips from peak demand periods through incentives for telecommuting and alternative work schedules; and reducing the number of drive-alone trips through increased use of transit, rail, bicycling, walking and other alternative modes of travel.
- **Optimizing the performance of the transportation system:** The Draft 2016 RTP/SCS earmarks \$9.2 billion for Transportation System Management (TSM) improvements, including extensive advanced ramp metering, enhanced incident management, bottleneck removal to improve flow (e.g. auxiliary lanes), expansion and integration of the traffic signal synchronization network, data collection to monitor system performance, integrated and dynamic corridor congestion management, and other Intelligent Transportation System (ITS) improvements.

- Promoting walking, biking and other forms of active transportation:** The Draft 2016 RTP/SCS plans for continued progress in developing our regional bikeway network, assumes all local active transportation plans will be implemented, and dedicates resources to maintain and repair thousands of miles of dilapidated sidewalks. The Plan also considers new strategies and approaches beyond those proposed in 2012, including promoting active transportation for short trips by improving sidewalk quality, local bike networks, and neighborhood mobility areas; and for regional trips by improving a regional greenway network, bike network and access to the California Coastal Trail. Active transportation will also be promoted by integrating it with the region’s transit system; promoting 16 regional corridors that support biking and walking; supporting bike share programs; and educating people about the benefits of active transportation for students, as well as promoting safety campaigns.
- Strengthening the regional transportation network for goods movement:** The Draft 2016 RTP/SCS includes \$74.8 billion in goods movement investment. Among these are establishing a system of truck-only lanes extending from the San Pedro Bay Ports to downtown Los Angeles along Interstate 710, connecting to the State Route 60 east-west segment to Interstate 15 in San Bernardino County; working to relieve the top 50 truck bottlenecks; adding mainline tracks for the Burlington Northern Santa Fe (BNSF) San Bernardino and Cajon Subdivisions and the Union Pacific Railroad (UPRR) Alhambra and Mojave Subdivisions; expanding/modernizing intermodal facilities; building highway-rail grade separations; improving port area rail infrastructure; reducing environmental impacts by supporting the deployment of commercially available low-emission trucks and locomotives; and in the longer term, advancing technologies to implement a zero-emission and near zero-emission freight system.
- Leveraging technology.** Advances in communications, computing and engineering – from shared mobility innovations to zero emission vehicles – can lead to a more efficient transportation system with more mobility options for everyone. Technological innovations also can reduce the environmental impact of existing modes of transportation. For example, alternative fuel vehicles continue to become more accessible for retail consumers and for freight and fleet applications – and as they are increasingly used, air pollution can be reduced. Communications technology, meanwhile, can improve the movement of passenger vehicles and connected transit vehicles. As part of the Draft 2016 RTP/SCS, SCAG has focused location-based strategies specifically on increasing the efficiency to Plug-in Hybrid Electric Vehicles (PHEV) in the region. These are electric vehicles powered by a gasoline engine when their battery is depleted. The Draft 2016 RTP/SCS proposes a regional charging network that will increase the number of PHEV miles driven on electric power, in addition to supporting the growth of the PEV market generally. In many instances these chargers may double the electric range of PHEVs, reducing vehicle miles traveled that produce tail-pipe emissions.

### *Sustainable Communities Strategies*

- Focusing new growth around transit:** The Draft 2016 RTP/SCS plans for focusing new growth around transit, which is supported by the following policies: Identify regional strategic areas for infill development and investment; develop “Complete Communities;” develop nodes on a corridor; plan for additional housing and jobs near transit; plan for changing demand in types of housing; continue to protect stable, existing single-family areas; Ensure adequate access to open space and preservation of habitat; and incorporate local input and feedback on future growth. These policies support the development of:

- High Quality Transit Areas (HQTAs) – areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours. While HQTAs account for only 3 percent of total land area in SCAG region, they are planned and projected to accommodate 46 percent of the region's future household growth, and 50 percent of the future employment growth.
  - Livable Corridors – arterial roadways where jurisdictions may plan for a combination of the following elements: high-quality bus frequency; higher density residential and employment at key intersections; and increased active transportation through dedicated bikeways.
  - Neighborhood Mobility Areas (NMAs) – these areas represent the synthesis of various planning practices and are applicable in a wide range of settings. Strategies are intended to provide sustainable transportation options for residents of the region who lack convenient access to high-frequency transit but make many short trips within their urban neighborhoods. NMAs are conducive to active transportation and include a “complete streets” approach to roadway improvements to encourage replacing single- and multi-occupant automobile use with biking, walking, skateboarding, neighborhood electric vehicles and senior mobility devices.
- **Preserving natural lands:** Many natural land areas near the edge of existing urbanized areas do not have plans for conservation and are vulnerable to development pressure. The Draft 2016 RTP/SCS recommends redirecting growth from high value habitat areas to existing urbanized areas. This strategy avoids growth in sensitive habitat areas, builds upon the conservation framework, and complements an infill-based approach.

### *Overall Financial Plan*

As further detailed in the Executive Summary, the Draft 2016 RTP/SCS proposes to invest \$556.5 billion through the forecast horizon year of 2040 to significantly improve every component of our multi-modal transportation system, including much needed investment for the operation and maintenance of our existing system. Operating and maintenance (O&M) expenditures needed to achieve a state of good repair total \$274.9 billion (49 percent).

The funding of the Plan is based on \$356.1 billion in core revenue sources and \$200.4 billion in new revenue sources that are reasonably expected to be available over the plan period. Local sources, totaling \$254.7 billion, comprise the largest share of core revenues at 71 percent, followed by state sources totaling \$63.8 billion (18 percent) and federal sources totaling \$37.7 billion (11 percent). Core revenues are existing transportation funding sources projected through 2040. The core revenue forecast does not include future increases in tax rates or adoptions of new tax measures.

The forecast of expenditure needs totals \$556.5 billion. The difference between the expenditure forecast total (\$556.5 billion) and the core revenue forecast total (\$356.1 billion) is \$200.4 billion. This funding gap is similar to the amount identified in the 2012 RTP/SCS. As part of the 2012 RTP/SCS, reasonably available new revenue sources including short-term adjustments to state and federal gas excise tax rates and long-term replacement of gas taxes with mileage-based user fees (or other comparable source such as equivalent adjustment to fuel tax adjustments) were included to fill the gap.

## ***State and Federal Compliance***

The Draft 2016 RTP/SCS meets all of the federal and state requirements. Based upon SCAG's modeling analysis, the Draft Plan meets all the provisions of transportation conformity rules under the Clean Air Act. Cleaner fuels and new vehicle technologies will help to significantly reduce many of the pollutants that contribute to smog and other airborne contaminants that may impact public health in the region. The Plan meets state-mandated targets for reducing greenhouse gas emissions from cars and light trucks. The state's targets for the SCAG region are an eight (8) percent per capita reduction in greenhouse gas emissions from automobiles and light duty trucks by 2020, and a 13 percent reduction by 2035 (compared to 2005 levels). The Draft RTP/SCS achieves a greenhouse gas reduction of 8 percent per capita in 2020, 18 percent per capita in 2035, and a 22 percent reduction by 2040 as compared to 2005 levels. Thus the Draft Plan meets and/or exceeds the targets established by the California Air Resources Board (ARB) for the SCAG region.

## **Next Steps**

The official release of the Draft 2016 RTP/SCS triggers a 60-day public review and comment period. Staff will continue to conduct significant outreach efforts targeting elected officials key stakeholders, community groups and the general public to ensure ample opportunities to provide feedback on the Plan. In January 2016, staff will conduct a minimum of 14 Elected Officials' Briefings and three (3) Public Hearings throughout the six-county SCAG region to solicit feedback on all elements of the Plan. At the end of the 60-day comment period, staff will document and provide a written response to each comment received. These comments will be summarized and presented to the Regional Council on March 3, 2016. Based on policy direction from the Regional Council at the March 3, 2016 meeting, staff will make final revisions to the Draft Plan. On April 7, 2016, the Regional Council will be asked to consider the Final 2016 RTP/SCS for adoption.

## **FISCAL IMPACT:**

Work associated with this item is included in the Fiscal Year 2015-2016 Overall Work Program (WBS Number 15-010.SCG00170.01: RTP Support, Development, and Implementation).

## **ATTACHMENTS:**

1. Draft 2016 RTP/SCS Executive Summary
2. PowerPoint Presentation: "2016 RTP/SCS – A Plan For Our Future"



# 2016 2040 RTPSCS

---

## THE **2016-2040** REGIONAL TRANSPORTATION PLAN/ SUSTAINABLE COMMUNITIES STRATEGY

A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life

## Executive Summary

DRAFT

DECEMBER 2015

This Page Intentionally Left Blank

# EXECUTIVE SUMMARY



---

# ENVISIONING OUR REGION IN 2040

Transport yourself 25 years into the future. What kind of Southern California do you envision? SCAG envisions a region that has grown by nearly four million people – sustainably. In communities across Southern California, people enjoy increased mobility, greater economic opportunity and a higher quality of life.

## OUR VISION

In our vision for the region in 2040, many communities are more compact and connected seamlessly by numerous public transit options, including expanded bus and rail service. People live closer to work, school, shopping and other destinations. Their neighborhoods are more walkable and safe for bicyclists. They have more options available besides driving alone, reducing the load on roads and highways. People live more active and healthy lifestyles as they bike, walk or take transit for short trips. Goods flow freely along roadways, highways, rail lines and by sea and air into and out of the region – fueling economic growth.

Southern California’s vast transportation network is preserved and maintained in a state of good repair, so that public tax dollars are not expended on costly repairs and extensive rehabilitation. The region’s roads and highways are well-managed so that they operate safely and efficiently, while demands on the regional network are managed effectively by offering people numerous alternatives for transportation.

Housing across the region is sufficient to meet the demands of a growing population with shifting priorities and desires and there are more affordable homes for all segments of society. With more connected communities, more choices for travel and robust commerce, people enjoy more opportunities to advance educationally and economically. As growth and opportunity are distributed widely, people from diverse neighborhoods across the region share in the benefits of an enhanced quality of life.

With more alternatives to driving alone available, air quality is improved and the greenhouse gas emissions that contribute to global climate change are reduced. Communities throughout Southern California are more prepared to confront and cope with the inevitable consequences of climate change, including droughts and wildfires, heat waves, rising seas and extreme weather. Meanwhile, natural lands and recreational areas that offer people a respite from the busier parts of the region are preserved and protected.

At mid-century, technology has transformed how we get around. Automated cars have emerged as a viable option for people and are being integrated into the overall transportation system. Shared mobility options that rely on instantaneous communication and paperless transactions have matured and new markets for mobility are created and strengthened.

Above all, people across the region possess more choices for getting around and with those choices come opportunities to live healthier, more economically secure and higher quality lives.

This vision for mid-century, which is built on input received from thousands of people across Southern California, is embodied in the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS, or Plan), a major planning document for our regional transportation and land use network. It balances the region’s future mobility and housing needs with economic, environmental and public health goals. This long-range Plan, required by the state of California and the federal government, is updated by SCAG every four years as demographic, economic and policy circumstances change. The 2016 RTP/SCS is a living, evolving blueprint for our region’s future.

## HOW WE GET TO WORK



14%

CARPOOL



76%

DRIVE ALONE



5%

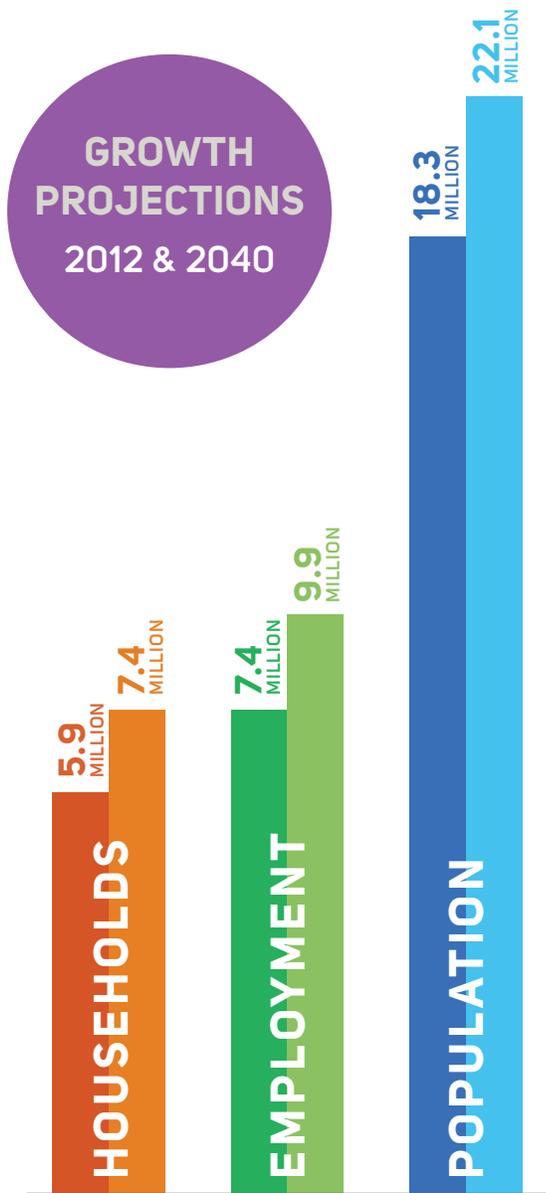
TRANSIT  
(Bus/Rail)



5%

NON-MOTORIZED  
(Walk/Bike)





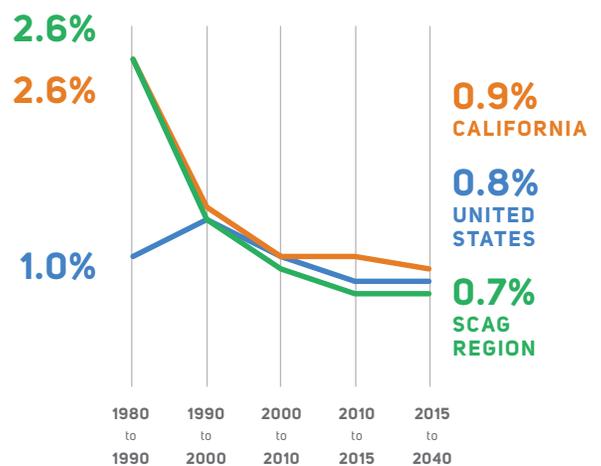
Source: CA DOF, CA EDD, SCAG

## CHALLENGES WE FACE

We are living at a time of great change in Southern California. Our region must confront several challenges as we pursue the goals outlined in the 2016 RTP/SCS:

- **We are growing slower:** But our region is projected to grow to 22 million people by 2040 – an increase of nearly four million people.
- **Our overall population will be older:** The median age of our region’s overall population is expected to rise, with an increasing share of senior citizens. This demographic shift will have major impacts on transportation needs and on our transportation plans. A key challenge for the region will be to provide seniors with more transportation options for maintaining their independence as they age.
- **A smaller percentage of us will be working:** The share of younger people of working age is expected to fall. The ratio of people over the age of 65 to people of working age (15 to 64) is expected to increase. This means that our region could face a labor shortage and a subsequent reduction in tax revenues.

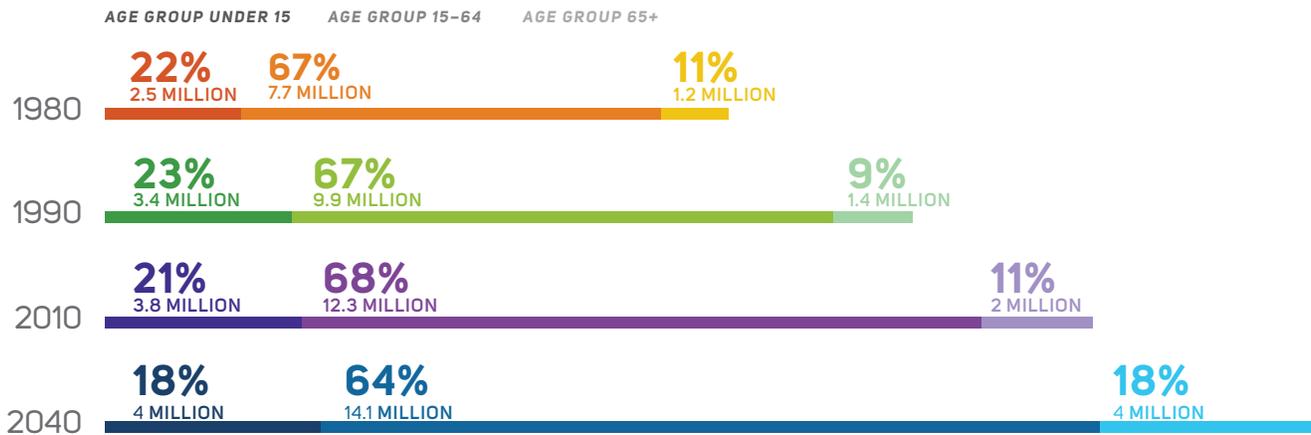
## Average Annual Population Growth Rate



Source: US Census Bureau, CA DOF, SCAG

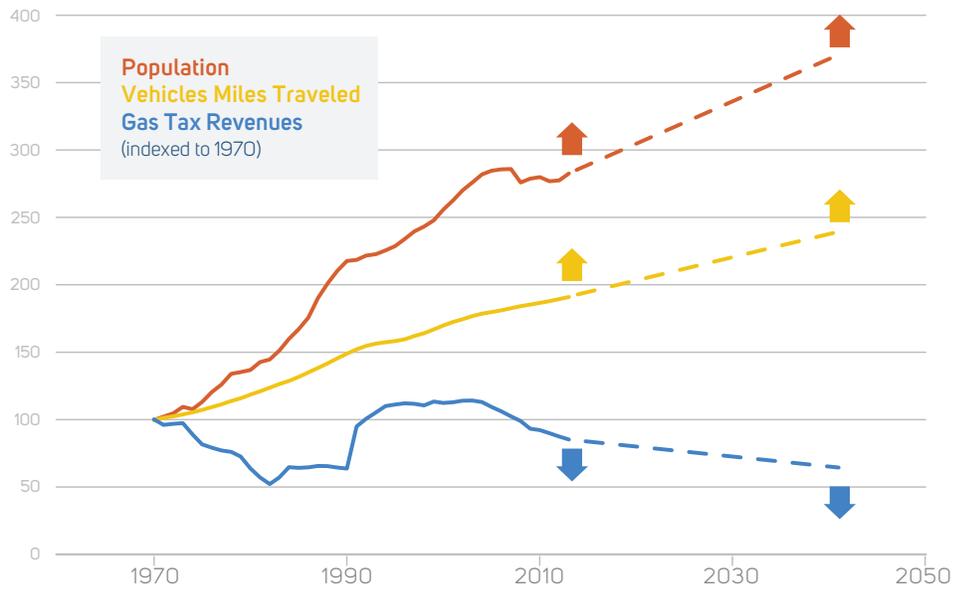
- **A large number of us want more urban lifestyles:** Today’s Millennials, born between 1980 and 2000, are expected to demand more compact communities and more access to transit – shifting regional priorities for the overall transportation system and the types of housing that is constructed. Baby Boomers are also expected to increasingly desire these kinds of communities.
- **Many of us will continue to live in the suburbs and drive alone:** Despite the emerging trends discussed above, many people in the region will continue to live in suburban neighborhoods and drive alone to work, school, shopping and other destinations - rather than using public transit and other transportation alternatives. The 2016 RTP/SCS will not change how everyone chooses to get around, but the Plan is designed to offer residents more choices so that we can experience regionwide benefits.
- **Housing prices are increasing:** Housing prices are rising steadily and affordability is declining. As communities are redeveloped to be more compact with new transit options and revitalized urban amenities, existing residents may risk displacement.
- **Our transportation system requires rehabilitation and maintenance:** Southern California’s transportation system is becoming increasingly compromised by decades of underinvestment in maintaining and preserving our infrastructure. These investments have not kept pace with the demands placed on the system and the quality of many of our roads, highways, bridges, transit and bicycle and pedestrian facilities is continuing to deteriorate. If we continue on our current path of seriously underfunding system preservation, the cost of bringing our system back to a reasonable state of good repair will grow exponentially.

## More Baby Boomers Will Age & Retire



Source: US Census Bureau, SCAG

FIGURE 1 CALIFORNIA POPULATION, TRAVEL AND GAS TAX REVENUE TRENDS



Source: Caltrans, California Department of Finance, California State Board of Equalization, White House Office of Management and Budget

## The State of Disrepair

**17%**  
OF HIGHWAYS ARE  
**DISTRESSED**

**6%**  
OF LOCAL ROADS IN  
**FAILED CONDITION**  
IN 2012

**25%**  
OF LOCAL ROADS WILL BE IN **FAILED CONDITION**  
IN 2022 UNDER CURRENT (2012) FUNDING

**18%**  
OF BRIDGES RATED  
AS **FUNCTIONALLY**  
**OBSOLETE**

**10%**  
OF BRIDGES RATED  
AS **STRUCTURALLY**  
**DEFICIENT**

**\$102.5**  
**BILLION**

of all proposed expenditures through  
**2040**  
are allocated to  
highway & arterial system operations  
& maintenance in the  
**2016 RTP/SCS**

Source: Federal Highway Administration National Bridge Inventory & 2014 State Highway Operation & Protection Program

- **Transportation funding is scarce and insufficient:** Full funding for transportation improvements is currently not sustainable, given the projected needs. Projected revenues from the gas tax, the historic source of transportation funding, will not meet transportation investment needs – and gas tax revenues, in real terms, are actually in decline as tax rates (both state and federal) have not been adjusted in more than two decades while the number of more fuel efficient and alternative powered vehicles continues to grow.
- **Moving goods through the region faces growing pains:** The movement of goods will face numerous challenges as consumer demand for products increases and the region continues to grow as a major exchange point for global trade. Infrastructure for freight traffic will be strained, current efforts to reduce air pollution from goods movement sources will not be sufficient to meet national air quality standards, capacity at international ports will be over-burdened and warehouse space could fall short of demands.
- **Technology is transforming transportation:** Mobility innovations including electric cars, the availability of real-time traveler information, the expansion of car sharing and ridesourcing due to smart phones and other technological advances will require updated planning to smoothly integrate these new travel options into the overall transportation system.
- **Millions of people are in poor health:** Many people in our region suffer from poor health due to chronic diseases related to poor air quality and physical inactivity. Heart disease, stroke, cancer, chronic lower respiratory disease and diabetes are responsible for 72 percent of all deaths in our region. Millions of more people live with chronic diseases, such as asthma, every day.
- **Climate change demands that we adapt:** The consequences of climate change will continue to strain everyday life for millions of people. Droughts and wildfires, water shortages brought about by drought but also declining snowpack in our mountains, rising seas, extreme weather events and other impacts will require communities to make their neighborhoods more resilient to climate change.

## OUR PROGRESS SINCE 2012

Although our challenges are great, the region has made significant progress over the past few years.

### TRANSIT

Transit service continues to expand throughout the region and the level of service has exceeded pre-recessionary levels – mainly due to a growth in rail service. Significant progress has been made toward completing capital projects for transit, including the Los Angeles County Metropolitan Transportation Authority (Metro) Orange Line Extension and the Metro Expo Line. Meanwhile, five major Metro Rail projects are now under construction in Los Angeles County.

### PASSENGER RAIL

Passenger rail is expanding and improving service on several fronts. The Amtrak Pacific Surfliner is now being managed locally by the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Agency; Metrolink is nearing completion on the Perris Valley Line; Metrolink became the first commuter railroad in the nation to implement Positive Train Control and purchase fuel-efficient, low-emission Tier IV locomotives; and the California High-Speed Train system is under construction in the Central Valley, and scheduled to begin service to Burbank Bob Hope Airport in 2022 and reach Los Angeles Union Station in 2028. Several other capital projects are underway or have been completed, including the Anaheim Regional Intermodal Transportation Center (ARTIC) and the Burbank Bob Hope Airport Regional Intermodal Transportation Center, among others.

### HIGHWAYS

The expansion of highways has slowed considerably over the last decade because of land, financial and environmental constraints. Still, several projects have been completed since 2012 to improve access and close critical gaps and congestion chokepoints in the regional network. These include the Interstate 5 South Corridor Project in Los Angeles County, Interstate 10 westbound widening in Redlands and Yucaipa, and the Interstate 215 Bi-County Project in Riverside and San Bernardino Counties, among others.

### REGIONAL HIGH-OCCUPANCY VEHICLE (HOV) AND EXPRESS LANE NETWORK

The demands on our region's highways continue to exceed available capacity during peak periods, but several projects to close HOV gaps have been completed. The result has been 27 more miles of regional HOV lanes on Interstates 5, 405, 10, 215 and 605, on State Route 57 and on the West County Connector Project within Orange County. The region is also developing a Regional Express Lane Network. Among the milestones: a one-year demonstration of Express Lanes in Los Angeles County along Interstate 10 and Interstate 110 was made permanent in 2014; and construction has begun on Express Lanes on State Route 91 extending eastward to Interstate 15 in Riverside County.

### ACTIVE TRANSPORTATION

Our region is making steady progress in encouraging more people to embrace active transportation and more than \$650 million in Active Transportation Program investments are underway. Nearly 37 percent of all trips less than one mile and 18 percent of all trips less than three miles are made via active transportation. As a percentage share of all trips, bicycling has increased more than 70 percent since 2007 to 1.12 percent. More than 500 miles of new bikeways have been constructed in the region and safety and encouragement programs are helping people choose walking and biking as options.

## GOODS MOVEMENT

The region continues to make substantial progress toward completing several major capital initiatives to support freight transportation and reducing harmful emissions generated by goods movement sources. Progress since 2012 has included: the San Pedro Bay Ports Clean Air Action Program (CAAP) has led to diesel particulate matter dropping by 82 percent, oxides of nitrogen by 54 percent and oxides of sulfur by 90 percent; and the San Pedro Bay Ports Clean Truck Program has led to an 80 percent reduction in port truck emissions. The region has also shown progress in advanced technology for goods movement, including a one-mile Overhead Catenary System (OCS) in the City of Carson. Construction of the Gerald Desmond Bridge has begun. Fourteen out of 71 planned grade separation projects throughout the region have been completed, and another 24 should be completed in 2016. Double tracking of the Union Pacific (UP) Alhambra Subdivision has been initiated. The Colton Crossing, which physically separated two Class I railroads with an elevated 1.4-mile-long overpass that lifts Union Pacific (UP) trains traveling east-west, was completed in August 2013.

## SUSTAINABILITY IMPLEMENTATION

Since 2012, SCAG's Sustainability Planning Grant Program has funded 70 planning projects (totaling \$10 million) to help local jurisdictions link local land use plans with 2012 RTP/SCS goals. Local jurisdictions have updated outmoded general plans and zoning codes; completed specific plans for town centers and Transit Oriented Development (TOD); implemented sustainability policies; and adopted municipal climate action plans. Thirty of the 191 cities in the SCAG region reported updating their general plans since 2012 and another 42 cities have general plan updates pending. Fifty-four percent of all the adopted and pending general plans include planning for TOD, 55 percent plan to concentrate key destinations and 76 percent include policies encouraging infill development. To protect water quality, 91 percent of cities have adopted water-related policies and 85 percent have adopted measures to address water quality. To conserve energy, 86 percent of cities have implemented community energy efficiency policies, with 80 percent of those cities implementing municipal energy efficiency policies and 76 percent implementing renewable energy policies. Of the region's 191 cities, 189 have completed sustainability components, with 184 cities implementing at least ten or more policies or programs and ten cities implementing 20 or more policies or programs. This last group includes Pasadena, Pomona and Santa Monica.

## AFFORDABLE HOUSING

The state is offering new opportunities to help regions promote affordable housing. In spring 2015, California's Affordable Housing Sustainable Communities (AHSC) program awarded its first round of funding to applicants after a competitive grant process. Of \$122 million available statewide, \$27.5 million was awarded to ten projects in the SCAG region. Eight-hundred forty-two affordable units, including 294 units designated for households with an income of 30 percent or less of the area median income, will be produced with this funding. Meanwhile, Senate Bill 628 (Beall) and Assembly Bill 2 (Alejo), provide jurisdictions an opportunity to establish a funding source to develop affordable housing and supportive infrastructure and amenities.

## PUBLIC HEALTH

The SCAG region has several ongoing efforts to promote public health. The Los Angeles County Department of Public Health and the Department of City Planning are developing a Health Atlas, which highlights health disparities among neighborhoods. In Riverside County, the Healthy Riverside County Initiative is working to have healthy cities resolutions adopted by a minimum of 15 cities. The County of San Bernardino has recently completed the Community Vital Signs Initiative, which envisions a "county where a commitment to optimizing health and wellness is embedded in all decisions by residents, organizations and government."

## ENVIRONMENTAL JUSTICE

Since the adoption of the 2012 RTP/SCS, social equity and environmental justice have become increasingly significant priorities in regional plans. For example, plans to promote active transportation, improve public health, increase access to transit, preserve open space, cut air pollution and more are all evaluated for how well the benefits of these efforts are distributed among all demographic groups. The State of California's Environmental Protection Agency (Cal/EPA) developed a new tool, CalEnviroScreen, which helps to identify areas in the state that have higher levels of environmental vulnerability due to historical rates of toxic exposure and certain social factors. Based on this tool, much of the region can stand to benefit from Cap-and-Trade grants that give priority to communities that are disproportionately impacted.

## SETTING THE STAGE FOR OUR PLAN

SCAG began developing the 2016 RTP/SCS by first reaching out to the local jurisdictions to hear directly from them about their growth plans. The next step was to develop scenarios of growth, each one representing a different vision for land use and transportation in 2040. More specifically, each scenario was designed to explore and convey the impact of where the region would grow, to what extent the growth would be focused within existing cities and towns and how it would grow—the shape and style of the neighborhoods and transportation systems that would shape growth over the period. The refinement of these scenarios, through extensive public outreach and surveys, led to a “preferred scenario” that helped guide the strategies, programs and projects detailed in the Plan.

### MAJOR INITIATIVES

With the preferred scenario selected, the 2016 RTP/SCS, which includes \$556.5 billion in transportation investments, has proposed several major initiatives to strive toward our vision for 2040.

#### PRESERVING THE TRANSPORTATION SYSTEM WE ALREADY HAVE (FIXING IT FIRST)

The 2016 RTP/SCS calls for the investment of \$274.9 billion toward preserving our existing system. The allocation of these expenditures includes the transit and passenger rail system, the state highway system and regionally significant local streets and roads.

#### EXPANDING OUR REGIONAL TRANSIT SYSTEM TO GIVE PEOPLE MORE ALTERNATIVES TO DRIVING ALONE

The 2016 RTP/SCS includes \$56.1 billion for capital transit projects. This includes significant expansion of the Metro subway and Light Rail Transit (LRT) system in Los Angeles County. Meanwhile, new Bus Rapid Transit (BRT) routes will expand higher-speed bus service regionally; new streetcar services will link major destinations in Orange County; and new Metrolink extensions will further connect communities in the Inland Empire. Other extensive improvements are planned for local bus, rapid bus, BRT and express service throughout the region. To make transit a more attractive and viable option, the 2016 RTP/SCS also supports implementing and expanding transit signal priority; regional and inter-county fare agreements and media; increased bicycle carrying capacity on transit and rail vehicles; real-time passenger information systems to allow travelers to make more informed decisions; and implementing first/last mile strategies to extend the effective reach of transit.

#### EXPANDING PASSENGER RAIL

The 2016 RTP/SCS calls for an investment in passenger rail of \$38.6 billion for capital projects and \$15.7 billion for operations and maintenance. The Plan calls for maintaining the commitments in the 2012 RTP/SCS, including Phase 1 of California High-Speed Train system and the High-Speed Train System Memorandum of Understanding (MOU), which identifies a candidate project list to improve the Metrolink system and the LOSSAN rail corridor, thereby providing immediate, near-term benefits to the region while laying the groundwork for future integration with California’s High-Speed Train project. These capital projects will bring segments of the regional rail network up to the federally defined speed of 110 miles per hour or greater, and help lead to a blended system of rail services.

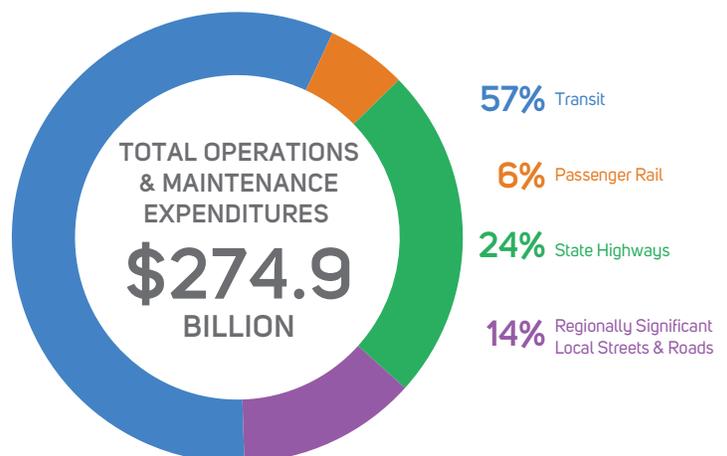
#### IMPROVING HIGHWAY AND ARTERIAL CAPACITY

The 2016 RTP/SCS calls for investing \$54.5 billion in capital improvements and \$102.5 billion in operations and maintenance of the state highway system and regionally significant local streets and roads throughout the region. This includes focusing on achieving maximum productivity by adding capacity primarily by closing gaps in the system and improving access; and other measures including the deployment of new technology. The Plan also continues to support a regional network of Express Lanes, building on the success of the State Route 91 Express Lanes in Orange County, as well as Interstate 10 and Interstate 110 Express Lanes in Los Angeles County.

#### MANAGING DEMANDS ON THE TRANSPORTATION SYSTEM

The 2016 RTP/SCS calls for investing \$6.9 billion toward Transportation Demand Management (TDM) strategies throughout the region. These strategies focus on reducing the number of drive-alone trips and overall vehicle miles traveled (VMT) through ridesharing, which includes carpooling, vanpooling and supportive policies for ridesourcing services such as Uber and Lyft; redistributing or eliminating vehicle trips from peak demand periods through incentives for telecommuting and alternative work schedules; and reducing the number of drive-alone trips through increased use of transit, rail, bicycling, walking and other alternative modes of travel.

FIGURE 2 PRESERVATION AND OPERATIONS EXPENDITURES



Source: California Department of Transportation, 2015 Ten-Year SHOPP Plan

## OPTIMIZING THE PERFORMANCE OF THE TRANSPORTATION SYSTEM

The 2016 RTP/SCS earmarks \$9.2 billion for Transportation System Management (TSM) improvements, including extensive advanced ramp metering, enhanced incident management, bottleneck removal to improve flow (e.g. auxiliary lanes), expansion and integration of the traffic signal synchronization network, data collection to monitor system performance, integrated and dynamic corridor congestion management and other Intelligent Transportation System (ITS) improvements.

## PROMOTING WALKING, BIKING AND OTHER FORMS OF ACTIVE TRANSPORTATION

The 2016 RTP/SCS plans for continued progress in developing our regional bikeway network, assumes all local active transportation plans will be implemented, and dedicates resources to maintain and repair thousands of miles of dilapidated sidewalks. The Plan also considers new strategies and approaches beyond those proposed in 2012. To promote short trips, these include improving sidewalk quality, local bike networks and neighborhood mobility areas. To promote longer regional trips, these include developing a regional greenway network, and continuing investments in the regional bikeway network and access to the California Coastal Trail. Active transportation will also be promoted by integrating it with the region's transit system; increasing access to 224 rail, light rail and fixed guideway bus stations; promoting 16 regional corridors that support biking and walking; supporting bike share programs; and educating people about the benefits of active transportation for students, as well as promoting safety campaigns.

## STRENGTHENING THE REGIONAL TRANSPORTATION NETWORK FOR GOODS MOVEMENT

The 2016 RTP/SCS includes \$74.8 billion in goods movement strategies. Among these are establishing a system of truck-only lanes extending from the San Pedro Bay Ports to downtown Los Angeles along Interstate 710; connecting to the State Route 60 east-west segment and finally reaching Interstate 15 in San Bernardino County; working to relieve the top 50 truck bottlenecks; adding mainline tracks for the Burlington Northern Santa Fe (BNSF) San Bernardino and Cajon Subdivisions and the Union Pacific Railroad (UPRR) Alhambra and Mojave Subdivisions; expanding/modernizing intermodal facilities; building highway-rail grade separations; improving port area rail infrastructure; reducing environmental impacts by supporting the deployment of commercially available low-emission trucks and locomotives; and in the longer term advancing technologies to implement a zero- and near zero-emission freight system.

TABLE 1 SELECTED TRANSIT CAPITAL PROJECTS

Airport Metro Connector
Crenshaw LAX Transit Corridor
East San Fernando Valley Transit Corridor
Eastside Transit Corridor Phase 2
Exposition Transit Corridor, Phase 2 to Santa Monica
Metro Gold Line Foothill Extension Phase 2A
Metro Gold Line Foothill Extension: Azusa to County Line
Regional Connector
Purple Line Extension to La Cienega, Century City, Westwood
Sepulveda Pass Corridor
South Bay Metro Green Line Extension
West Santa Ana Branch Transit Corridor
Bus & Rail Capital—LA County Near Term
Countywide Bus System Improvement—Metro Fleet
Countywide Bus System Improvement—LA County Muni Fleet
Metro Rail System Improvements (Capital Costs Only)
Metro Rail Rehabilitation and Replacement (Capital Costs Only)
Transit Contingency/New Rail Yards/Additional Rail Cars (Capital Costs Only)—LA County
Anaheim Rapid Connection
Countywide Fixed Route, Express and Paratransit capital (Baseline)—Orange County
Santa Ana and Garden Grove Streetcar
Coachella Valley Bus Rapid Service
Perris Valley Line
Perris Valley Line Extension to San Jacinto
Foothill/5th Bus Rapid Transit
Gold Line Phase 2B to Montclair
Metrolink San Bernardino Line Double tracking
Passenger Rail Service from San Bernardino to Ontario Airport
Redlands Rail
West Valley Connector Bus Rapid Transit
Vermont Short Corridor
Metro Red Line Extension: Metro Red Line Station North Hollywood to Burbank Bob Hope Airport
Metro Green Line Extension: Metro Green Line Norwalk Station to Norwalk Metrolink Station
Slauson Light Rail: Crenshaw Corridor to Metro Blue Line Slauson Station

Source: 2016-2040 RTP/SCS Project List

### LEVERAGING TECHNOLOGY

Advances in communications, computing and engineering – from shared mobility innovations to zero-emission vehicles – can lead to a more efficient transportation system with more mobility options for everyone. Technological innovations also can reduce the environmental impact of existing modes of transportation. For example, alternative fuel vehicles continue to become more accessible for retail consumers and for freight and fleet applications – and as they are increasingly used air pollution can be reduced. Communications technology, meanwhile, can improve the movement of passenger vehicles and connected transit vehicles. As part of the 2016 RTP/SCS, SCAG has focused location-based strategies specifically on increasing the efficiency of Plug-in Hybrid Electric Vehicles (PHEV) in the region. These are electric vehicles that are powered by a gasoline engine when their battery is depleted. The 2016 RTP/SCS proposes a regional charging network that will increase the number of PHEV miles driven on electric power, in addition to supporting the growth of the PEV market generally. In many instances, these chargers may double the electric range of PHEVs, reducing vehicle miles traveled that produce tail-pipe emissions.

**TABLE 2 MAJOR TRANSIT OPERATIONS AND MAINTENANCE PROJECTS AND INVESTMENTS**

(Over \$500 Million)

Access Services Incorporated (Paratransit)–Metro subsidy
Preventive Maintenance (Capital & Operating Maintenance Items Only) – LA County
Countywide Fixed Route, Express and Paratransit Operations–Orange County
OCTA SRTP Implementation
Metrolink Operations–Orange County
Transit Extensions to Metrolink–Go Local Operations–Orange County
San Bernardino Countywide Local Transit Service Operations
Regionwide Transit Operations and Maintenance–Preservation
Expand Bus Service: Productive Corridors
Expand Bus Service: BRT
Expand Bus Service: Point-to-Point

Source: 2016-2040 RTP/SCS Project List

**TABLE 3 TOP SIX MOU PROJECTS**

Los Angeles	Southern California Regional Interconnector Project
Los Angeles	CP Brighton to CP Roxford Double Track
Orange	State College Blvd. Grade Separation
Riverside	McKinley St. Grade Separation
San Bernardino	CP Lilac to CP Rancho Double Track
San Diego	San Onofre to Pulgas Double Track

CP = A track switch, or the location of a track signal or other marker with which dispatchers can specify when controlling trains.

### IMPROVING AIRPORT ACCESS

Recognizing the SCAG region is one of the busiest and most diverse commercial aviation regions in the world and that air travel is an important contributor to the region’s economic activity, the 2016 RTP/SCS includes strategies for reducing the impact of air passenger trips on ground transportation congestion. Such strategies include supporting the regionalization of air travel demand; continuing to support regional and inter-regional projects that facilitate airport ground access (e.g., High-Speed Train); supporting ongoing local planning efforts by airport operators, county transportation commissions and local jurisdictions; encouraging development and use of transit access to the region’s airports; encouraging the use of modes with high average vehicle occupancy; and discouraging the use of modes that require “deadhead” trips to/from airports (e.g., passengers being dropped off at the airport via personal vehicle).

### FOCUSING NEW GROWTH AROUND TRANSIT

The 2016 RTP/SCS plans for focusing new growth around transit, which is supported by the following policies: identifying regional strategic areas for infill and investment; structuring the plan on a three-tiered system of centers development; developing “Complete Communities”; developing nodes on a corridor; planning for additional housing and jobs near transit; planning for changing demand in types of housing; continuing to protect stable, existing single-family areas; ensuring adequate access to open space and preservation of habitat; and incorporating local input and feedback on future growth. These policies support the development of:

- **High Quality Transit Areas (HQTAs):** areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours. While HQTAs account for only three percent of total land area in SCAG region, they are planned and projected to accommodate 46 percent of the region’s future household growth and 50 percent of the future employment growth.
- **Livable Corridors:** arterial roadways where jurisdictions may plan for a combination of the following elements: high-quality bus frequency; higher density residential and employment at key intersections; and increased active transportation through dedicated bikeways.
- **Neighborhood Mobility Areas (NMAs):** these areas represent the synthesis of various planning practices and are applicable in a wide range of settings. Strategies are intended to provide sustainable transportation options for residents of the region who lack convenient access to high-frequency transit but make many short trips within their urban neighborhoods. NMAs are conducive to active transportation and include a “Complete Streets” approach to roadway improvements to encourage replacing single- and multi-occupant automobile use with biking, walking, skateboarding, neighborhood electric vehicles and senior mobility devices.

- Improving Air Quality and Reducing Greenhouse Gases:** It is through integrated planning for land use and transportation that the SCAG region, through the initiatives discussed in this section, will strive toward a more sustainable region. The SCAG region must achieve specific federal air quality standards. It also is required by state law to lower regional greenhouse gas emissions. California law requires the region to reduce per capita greenhouse gas emissions in the SCAG region by eight percent by 2020 – compared with 2005 levels – and by 13 percent by 2035. The strategies, programs and projects outlined in the 2016 RTP/SCS are projected to result in reduced greenhouse gas emissions in the SCAG region that exceeds these reduction targets.

### PRESERVING NATURAL LANDS

Many natural land areas near the edge of existing urbanized areas do not have plans for conservation and are vulnerable to development pressure. The 2016 RTP/SCS recommends redirecting growth from high value habitat areas to existing urbanized areas. This strategy avoids growth in sensitive habitat areas, builds upon the conservation framework, and complements an infill-based approach.

TABLE 4 SAMPLE MAJOR HIGHWAY PROJECTS COMMITTED BY THE COUNTIES

	COUNTY	ROUTE	DESCRIPTION	COMPLETION YEAR	COST (\$1,000'S)
MIXED-FLOW LANES	Imperial	SR-98	Widen and improve SR-98 or Jasper Rd to 4/6 lanes	2025	\$1,170,483
	Imperial	SR-111	Widen and improve to a 6-lane freeway with interchanges to Heber, McCabe and Jasper and overpass at Chick Rd	2030	\$999,136
	Los Angeles	SR-57/SR-60	Improve the SR-57/SR-60 interchange	2029	\$475,000
	Orange	I-5	Add 1 mixed-flow lane in each direction from SR-57 to SR-91	2040	\$305,924
	Orange	SR-55	Add 1 mixed-flow lane in each direction and fix chokepoints from I-405 to I-5 and add 1 auxiliary lane in each direction between select on/off ramps and operational improvements through project limits	2020	\$274,900
	Orange	SR-91	Add 1 mixed-flow lane on SR-91 eastbound from SR-57 to SR-55 and improve interchange at SR-91/SR-55	2025	\$425,000
	Orange	I-405	Add 1 mixed-flow lane in each direction from I-5 to SR-55	2023	\$374,540
	Ventura	SR-118	Add 1 mixed-flow lane in each direction from Tapo Canyon Rd to LA Avenue	2025	\$216,463
TOLL LANES	Los Angeles	I-110	Construct HOT off-ramp connector from 28th St to Figueroa St	2023	\$55,000
	Riverside	I-15	Add 1 HOT lane in each direction from Cajalco Rd to SR-74	2029	\$453,174
	San Bernardino	I-15	Add 2 HOT lanes in each direction from US-395 to I-15/I-215 interchange	2030	\$687,994
HOV LANES	Los Angeles	I-5	Add 1 HOV lane in each direction from Weldon Canyon Rd to SR-14	2017	\$410,000
	Los Angeles	SR-14	Add 1 HOV lane in each direction from Ave P-8 to Ave L	2027	\$120,000
	Los Angeles	SR-71	Convert expressway to freeway-add 1 HOV lane and 1 mixed-flow lane	2028	\$13,392
	Orange	I-5	Add 1 HOV lane in each direction from Pico to SD County Line	2040	\$237,536
	Riverside	I-15	Add 1 HOV lane in each direction from SR-74 to I-15/I-215 interchange	2039	\$375,664
	San Bernardino	I-10	Add 1 HOV lane in each direction from Ford to RV County Line	2030	\$126,836
	San Bernardino	I-215	Add 1 HOV lane in each direction from SR-210 to I-15	2035	\$249,151
	San Bernardino	I-210	Add 1 HOV lane in each direction from I-215 to I-10	2040	\$178,780
Ventura	US-101	Add 1 HOV lane in each direction from Moorpark Rd to SR-33	2029	\$132,000	

TABLE 5 MAJOR HOV PROJECTS

COUNTY	ROUTE	FROM	TO	COMPLETION YEAR
Los Angeles	I-5	Weldon Canyon	SR-14	2017
Los Angeles	I-5	Pico Canyon	Parker Rd	2025
Los Angeles	SR-14	Ave P-8	Ave L	2027
Los Angeles	SR-71	Mission Blvd	Rio Rancho Rd	2028
Orange	I-5	Pico	SD County Line	2040
Orange	I-5	SR-55	SR-57	2018
Orange	SR-73	I-405	MacArthur	2040
Riverside	I-15	SR-74	I-15/I-215 Interchange	2039
Riverside	I-215	Nuevo Rd	Box Springs Rd	2030
San Bernardino	I-10	Ford St	RV/SB County Line	2030
San Bernardino	I-215	SR-210	I-15	2035
San Bernardino	I-210	I-215	I-10	2040
Ventura	US-101	Moorpark Rd	SR-33	2029

FREEWAY TO FREEWAY HOV CONNECTORS				
COUNTY	ROUTE	FROM	TO	COMPLETION YEAR
Los Angeles	I-5/I-405	Connector (partial)		2029
Los Angeles	I-405/I-110	Connector Improvements		2021
Orange	I-405/SR-73	Connector		2040
Riverside	SR-91/SR-71	Connector Improvements		2020
San Bernardino	I-10/I-15	Connector (partial)		2035

TABLE 6 EXPRESS/HOT LANE NETWORK

	COUNTY	ROUTE	FROM	TO
HOT LANE ADDITIONS	Los Angeles	I-10	I-605	San Bernardino County Line
	Los Angeles	I-105*	I-405	I-605
	Los Angeles	I-405**	I-5	Orange County Line
	Los Angeles	I-605	I-10	Orange County Line
	Orange	SR-55***	SR-91	I-405
	Orange	SR-73	I-405	MacArthur Boulevard
	Orange	I-405**	Los Angeles County Line	SR-55
	Orange	I-605	Los Angeles County Line	I-405
	Riverside	I-15**	San Bernardino County Line	SR-74
	Riverside	SR-91*	Orange County Line	I-15
	San Bernardino	I-10**	Los Angeles County Line	Ford Street
	San Bernardino	I-15**	High Desert Corridor	Riverside County Line
HOT DIRECT CONNECTORS	Los Angeles	I-405/I-110	I-405 NB to I-110 NB and I-110 SB to I-405 SB	
	Orange	I-5/SR-55	Existing HOV to proposed HOT direct connector	
	Orange	SR-91/SR-55	Existing HOV to proposed HOT direct connector	
	Orange	SR-91/SR-241	SR-241 NB to SR-91 EB and SR-91 WB to SR-241 SB	
	Orange	I-405/SR-55	Existing HOV to proposed HOT direct connector	
	Orange	I-405/SR-73	Planned HOV to proposed HOT direct connector	
	Orange	I-405/I-605	Existing HOV to proposed HOT direct connector	
Riverside	SR-91/I-15	SR-91 EB to I-15 SB and I-15 NB to SR-91 WB		

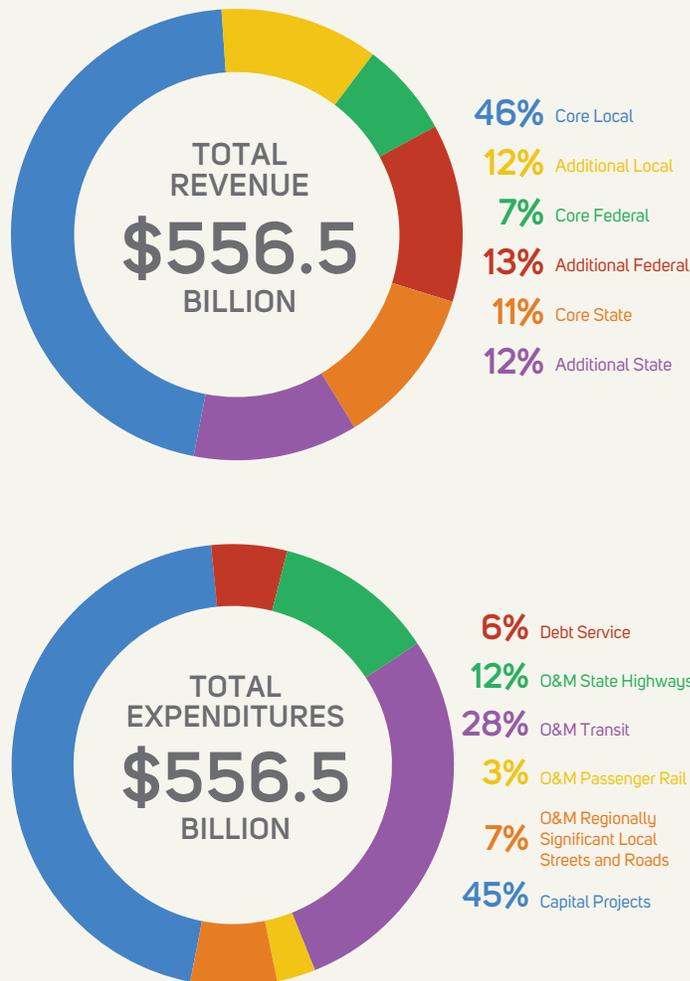
Notes: \* Dual Express lanes for entire length \*\* Dual Express lanes for a section \*\*\* May be either single or dual Express lanes

## FINANCING OUR FUTURE

To accomplish the ambitious goals of the 2016 RTP/SCS through 2040, SCAG forecasts expenditures of \$556.5 billion – of which \$274.9 billion is budgeted for operations and maintenance of the regional transportation system and another \$250.9 billion is reserved for transportation capital improvements.

Forecasted revenues comprise both existing and several new funding sources that are reasonably expected to be available for the 2016 RTP/SCS, which together total \$556.5 billion. Reasonably available revenues include short-term adjustments to state and federal gas excise tax rates and the long-term replacement of gas taxes with mileage-based user fees (or equivalent fuel tax adjustment). These and other categories of funding sources were identified as reasonably available on the basis of their potential for revenue generation, historical precedence and the likelihood of their implementation within the time frame of the Plan.

FIGURE 3 FY 2016–2040 SUMMARY OF REVENUE & EXPENDITURES (IN NOMINAL DOLLARS)



## WHAT WE WILL ACCOMPLISH

Overall, the transportation investments in the 2016 RTP/SCS will provide a return of \$2.00 for every dollar invested. Compared with an alternative of not adopting the Plan, the 2016 RTP/SCS would accomplish the following:

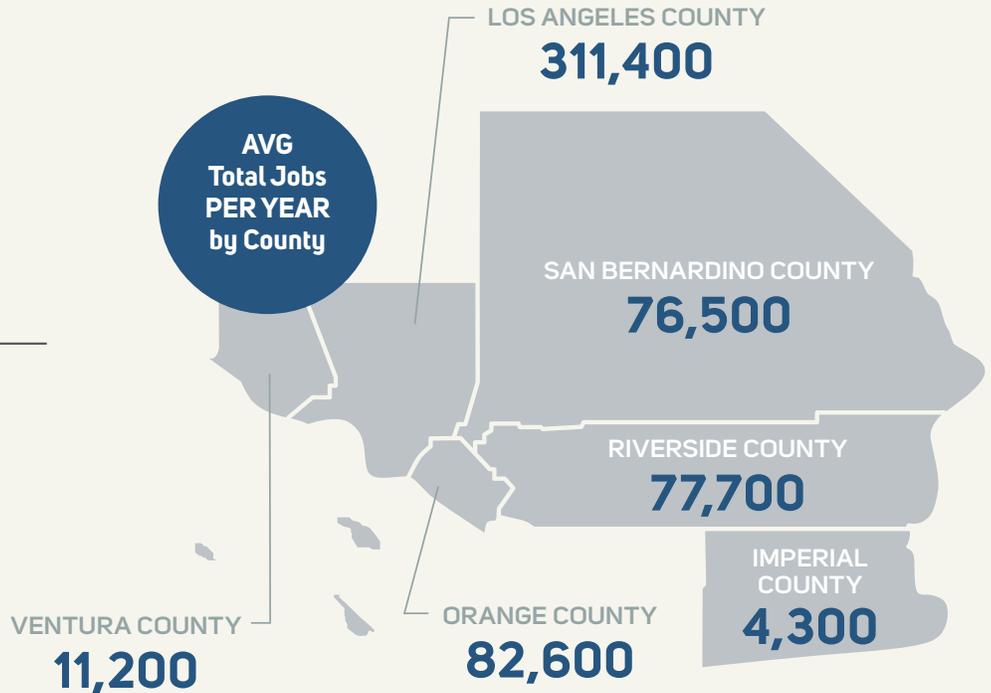
- The Plan would result in an eight percent reduction in greenhouse gas emissions per capita by 2020, an 18 percent reduction by 2035 and a 22 percent reduction by 2040 – compared with 2005 levels. This would exceed the state’s mandated reductions, which are eight percent by 2020 and 13 percent by 2035.
- Regional air quality would improve under the Plan, as cleaner fuels and new vehicle technologies help to significantly reduce many of the pollutants that contribute to smog and other airborne contaminants that may impact public health in the region.
- The combined percentage of work trips made by carpooling, active transportation and public transit would increase by about four percent, with a commensurate reduction in the share of commuters traveling by single occupant vehicle.
- The number of Vehicle Miles Traveled (VMT) per capita would be reduced by nearly ten percent and Vehicle Hours Traveled (VHT) per capita by 18 percent (for automobiles and light/medium duty trucks) as a result of more location efficient land use patterns and improved transit service.
- Daily travel by transit would increase by nearly one third, as a result of improved transit service and more transit-oriented development patterns.
- The Plan would reduce delay per capita by 45 percent, and heavy duty truck delay on highways by nearly 40 percent. This means we would spend less time sitting in traffic and our goods would move more efficiently.
- About 375,000 additional new jobs annually would be created, due to the region’s increased competitiveness and improved economic performance that would result from congestion reduction and improvements in regional amenities due to implementation of the Plan.
- The Plan would reduce the amount of previously undeveloped (greenfield) lands converted to more urbanized use by 23 percent. By conserving open space and other rural lands, the Plan provides a solid foundation for more sustainable development in the SCAG region.
- The Plan would result in a reduction in our regional obesity rate of 2.5 percent, and a reduction in the share of our population that suffers with high blood pressure of three percent. It would also result in a reduction in the total annual health costs for respiratory disease of more than 13 percent.

## CREATING JOBS IN THE SCAG REGION

# 563,700

AVG Total JOBS  
per year  
in the SCAG Region

Total jobs, all sources, construction, operations and maintenance, network benefits, from 2016 RTP/SCS, with 2012 shown for comparison, annual average jobs (relative to baseline)



## Daily Vehicle Miles Traveled (VMT)

per capita



## Daily Minutes of Delay

per capita



## HOW WE WILL ENSURE SUCCESS

Our Plan includes several performance outcomes and measures that are used to gauge our progress toward meeting our goals. These include:

- Location Efficiency, which reflects the degree to which improved land use and transportation coordination strategies impact the movement of people and goods.
- Mobility and Accessibility, which reflects our ability to reach desired destinations with relative ease and within a reasonable time, using reasonably available transportation choices.
- Safety and Health, which recognize that the 2016 RTP/SCS has impacts beyond those that are exclusively transportation-related (e.g., pollution-related disease).
- Environmental Quality, which is measured in terms of criteria pollutants and greenhouse gas emissions.
- Economic Opportunity, which is measured in terms of additional jobs created and the net contribution to Gross Regional Product achieved through improved regional economic competitiveness – as a result of the transportation investments provided through the 2016 RTP/SCS.
- Investment Effectiveness, which indicates the degree to which the Plan’s expenditures generate benefits that transportation users can experience directly.
- Transportation System Sustainability, which reflects how well our transportation system is able to maintain its overall performance over time in an equitable manner with minimum damage to the environment and without compromising the ability of future generations to address their transportation needs.

The 2016 RTP/SCS is designed to ensure that the regional transportation system serves all segments of society. The Plan is subject to numerous performance measures to monitor its progress toward achieving social equity and environmental justice. These measures include accessibility to parks and natural lands, roadway noise impacts, air quality impacts and public health impacts, among many others.

# PLAN PERFORMANCE RESULTS

### Spending Less Time on the Road

---

**19.7 miles**  
average daily vehicle miles driven per person



**10%**  
↓

**8.5 mins**  
daily delay per capita (extra time spent in traffic)



**45%**  
↓

### More Economic Opportunities

---



**\$1.00 = \$2.00**  
INVESTMENT      BENEFIT



**374,500**  
additional jobs supported by improving competitiveness

### Efficiency Cost Savings

---

HOUSEHOLD COSTS  
(transportation/energy/water use)

**\$14,000/yr**

**12%**  
↓

REDUCTION IN BUILDING ENERGY COSTS



**4%**  
↓

PASSENGER VEHICLE FUEL USE

**10%**  
↓

### Improved Air Quality

---

 <b>ROG</b> 48.5 TONS ↓ <b>9%</b> 44.3 TONS	 <b>CO</b> 334.7 TONS ↓ <b>10%</b> 302.9 TONS
 <b>NOx</b> 96.1 TONS ↓ <b>8%</b> 88.4 TONS	 <b>PM2.5</b> 13.2 TONS ↓ <b>6%</b> 12.5 TONS

**GHG REDUCTIONS**

2020	↓ <b>8%</b>
2035	↓ <b>18%</b>
2040	↓ <b>22%</b>

## LOOKING BEYOND 2040

The 2016 RTP/SCS is based on a projected budget constrained by the local, state and federal revenues that SCAG anticipates receiving between now and 2040. The Strategic Plan discusses projects and strategies that SCAG would pursue if new funding were to become available. The Strategic Plan discussion includes long-term emission reduction strategies for rail and trucks; expanding the region's high-speed and commuter rail systems; expanding active transportation; leveraging technological advances for transportation; addressing further regional reductions in greenhouse gas emissions; and making the region more resilient to climate change – among other topics. We anticipate that these projects and strategies may inform the development of the next Plan, the 2020 RTP/SCS.







## MAIN OFFICE

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

[www.scag.ca.gov](http://www.scag.ca.gov)

## REGIONAL OFFICES

Imperial County  
1405 North Imperial Avenue, Suite 1  
El Centro, CA 92243  
Phone: (760) 353-7800  
Fax: (760) 353-1877

Orange County  
OCTA Building  
600 South Main Street, Suite 906  
Orange, CA 92868  
Phone: (714) 542-3687  
Fax: (714) 560-5089

Riverside County  
3403 10th Street, Suite 805  
Riverside, CA 92501  
Phone: (951) 784-1513  
Fax: (951) 784-3925

San Bernardino County  
Santa Fe Depot  
1170 West 3rd Street, Suite 140  
San Bernardino, CA 92410  
Phone: (909) 806-3556  
Fax: (909) 806-3572

Ventura County  
950 County Square Drive, Suite 101  
Ventura, CA 93003  
Phone: (805) 642-2800  
Fax: (805) 642-2260



DRAFT DECEMBER 2015

[WWW.SCAGRTPSCS.NET](http://WWW.SCAGRTPSCS.NET)

This Page Intentionally Left Blank



# 2016 2040 RTPSCS

A PLAN FOR OUR FUTURE

December 3, 2015  
Regional Council Meeting

## Why Update the RTP/SCS?

- Move people & goods more efficiently
- Increase accessibility
- Meet all legal & statutory requirements
  - ARB targets
  - Transportation air quality conformity
- Enhance sustainability through integrating land use and transportation resulting in numerous co-benefits
- Align with major trends in demographics & technology



## Our Vision:

### Vibrant, livable communities that are...

- Healthy and safe
- Offer transportation options that provide easy access to schools, jobs, service, health care, and other basic needs
- Conducive to walking and bicycling
- Provide access to parks and natural lands
- Supportive of opportunities for business, investment and employment, fueling a more prosperous economy



3

## Major Transportation Strategies

- Expanding our regional transit system to give people more alternatives to driving alone
- Expanding passenger rail
- Promoting walking, biking and other forms of active transportation
- Preserving the transportation system we already have (Fix it First)



## Major Transportation Strategies

- Improving highways and arterials
- Managing demands on the transportation system
- Optimizing the performance of the transportation system
- Strengthening the regional transportation network for goods movement
- Leveraging technology
- Improving airport access



5

## Major Land Use Strategies

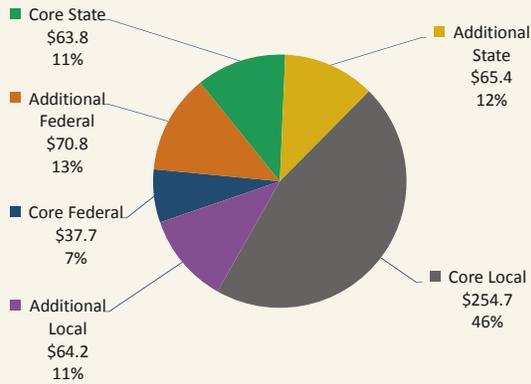
- Focusing new growth around transit
  - High Quality Transit Areas (HQTAs)
  - Livable Corridors
  - Neighborhood Mobility Areas
- Preserving Natural Lands



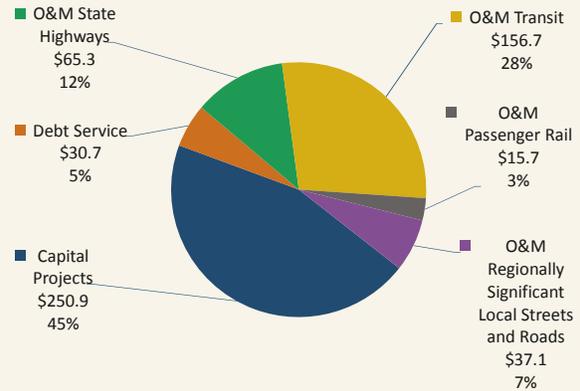
6

## 2016 RTP/SCS Financial Plan - \$556.5 Billion

### FY16-FY40 RTP/SCS Revenue Sources



### FY15-FY40 RTP/SCS Expenditures

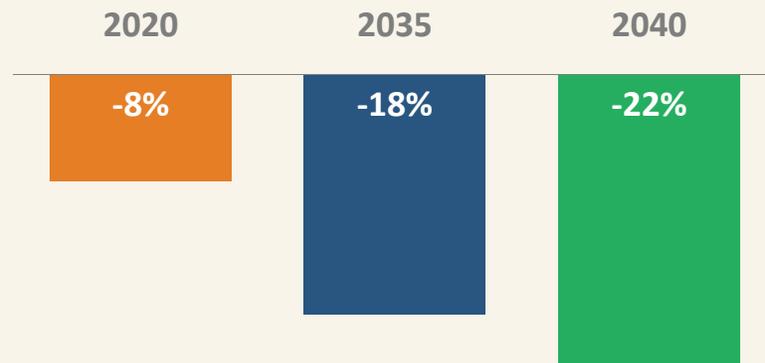


Note: numbers may not sum to total due to rounding

7

## Greenhouse Gas (GHG) Emissions

### Draft Plan Per Capita Reduction from 2005 (Draft)

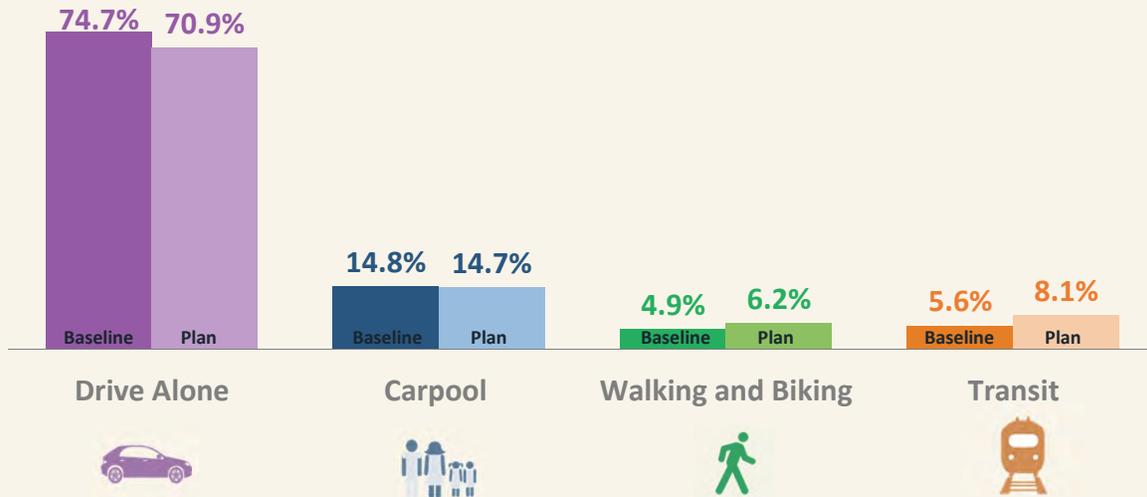


Meets State Targets & Promotes Sustainability



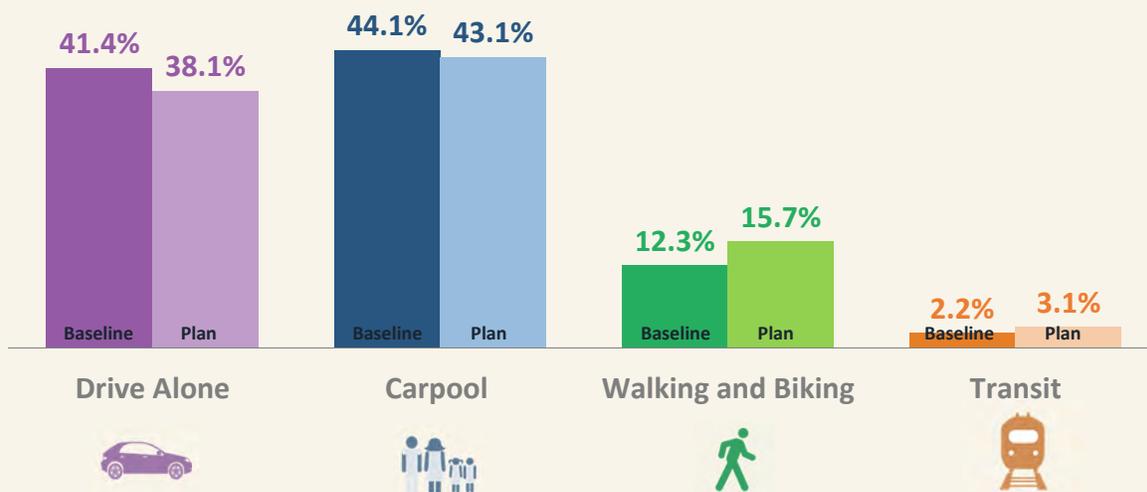
8

## Mode Choice – Work Trips Draft Plan vs. Trend Baseline (Draft)



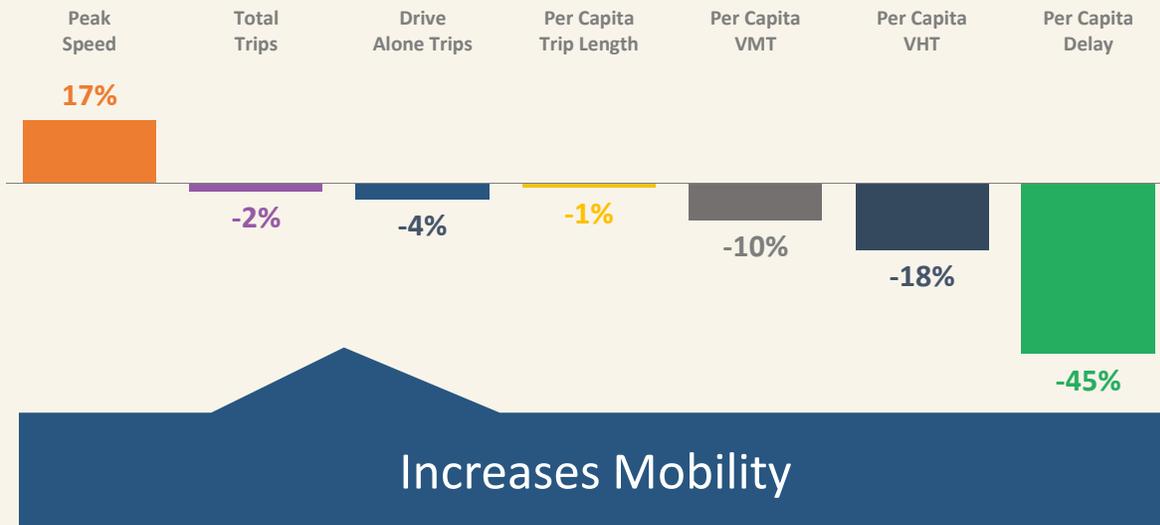
Note: These figures include additional improvements in walking and biking associated with the benefits of certain active transportation investments, which are analyzed as a supplement 9 to SCAG's Regional Trip Based Model

## Mode Choice – Total Trips Draft Plan vs. Trend Baseline (Draft)



Note: These figures include additional improvements in walking and biking associated with the benefits of certain active transportation investments, which are analyzed as a supplement 10 to SCAG's Regional Trip Based Model

## Roadway Results Draft Plan vs. Trend Baseline (Draft)



Note: Per Capita VMT takes into account improvements from new technologies and active transportation investments, which were analyzed in supplement to SCAG's Trip Based Model

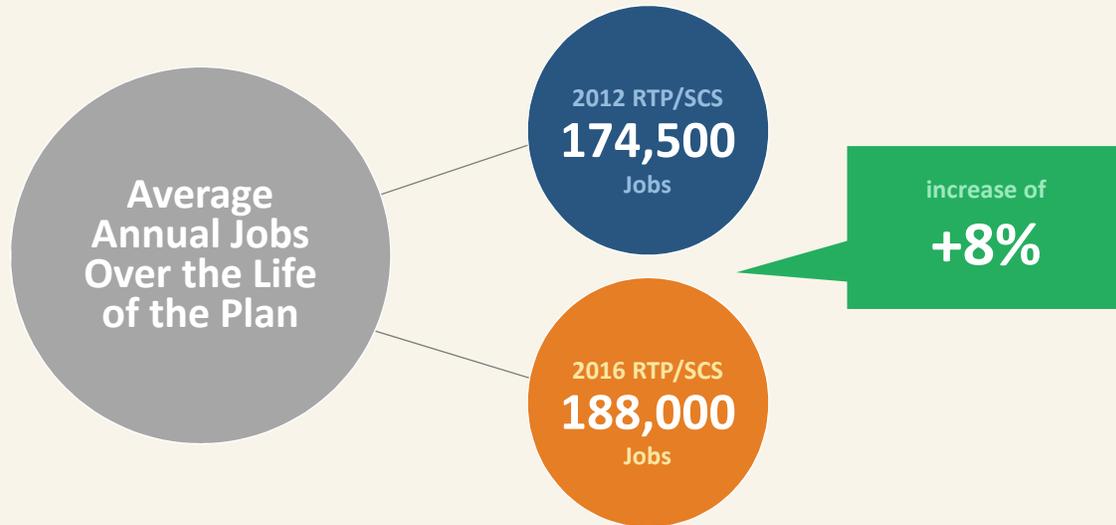
11

## Options for Our Future - RTP/SCS Scenario Overview SCS Co-Benefits – Reduction from Trend Baseline

SCS Co-Benefits	Trend Baseline	Scenario 2 2012 RTP/SCS Updated with Local Input	Draft 2016 RTP/SCS	Scenario 4 Exceeding Expectations
Land Consumption	N/A	-10 %	-23 %	-41 %
Respiratory Health Costs	N/A	-9 %	-13 %	-19 %
Local Infrastructure and Services Costs for New Residential Growth (O&M+ Capital)	N/A	-6 %	-8 %	-11 %
Building Energy Use, cumulative (2012-2040)	N/A	-2 %	-4 %	-5 %
Building Water Use, cumulative (2012-2040)	N/A	-0.4 %	-0.7 %	-1.0 %
Per Household Transportation Costs (fuel + auto)	N/A	-9 %	-13 %	-19 %
Per Household Utilities Costs (energy + water)	N/A	-4 %	-9 %	-11 %

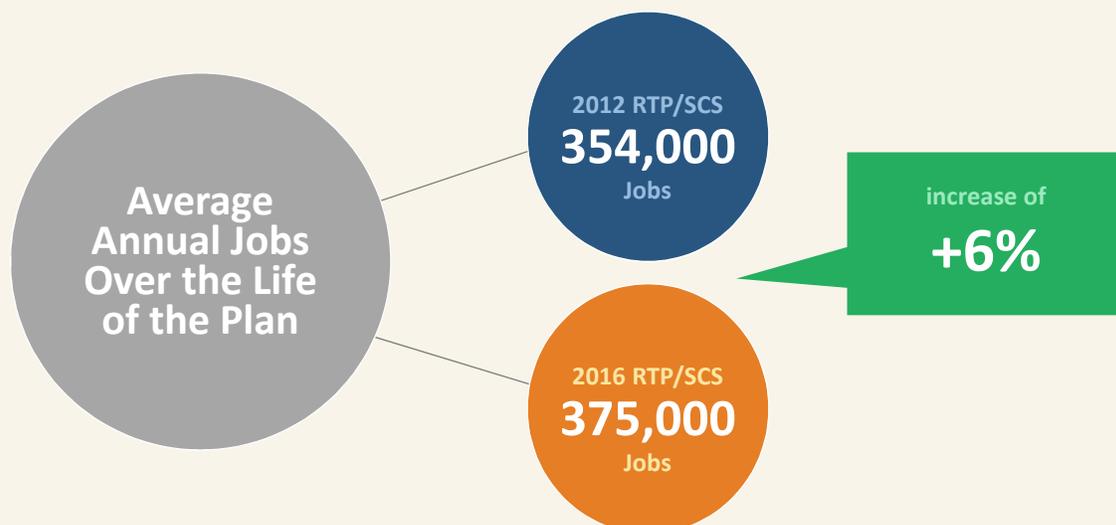
12

## Economic Benefits through 2040 Construction, Operations and Maintenance (Draft)



13

## Economic Benefits through 2040 Network Benefits (Draft)



14

## Upcoming Schedule

**2016 RTP/SCS  
Public Comment Period** Minimum 55 Days

**2016 RTP/SCS  
PEIR Public Comment Period** Minimum 45 Days

**Elected Officials Briefings** January 2016

**Public Hearings** January 2016

**Final Adoption of  
2016 RTP/SCS & PEIR** April 7, 2016



15

### RECOMMENDED ACTION

Based upon the joint recommendation of SCAG's three (3) Policy Committees, release the Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (hereinafter referred to either as the "2016 RTP/SCS" or the "Plan") for a 60-day public review and comment period, concurrent with the 60-day public review and comment period for the Draft 2016 RTP/SCS PEIR, beginning December 4, 2015 and ending February 1, 2016.

16

**DATE:** March 3, 2016

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

**FROM:** Hasan Ikhata, Executive Director, 213-236-1944, [ikhata@scag.ca.gov](mailto:ikhata@scag.ca.gov)

**SUBJECT:** Overview of Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) Comments and Revision Approach

**EXECUTIVE DIRECTOR'S APPROVAL:** 

---

**RECOMMENDED ACTION:**

For information and discussion only.

**EXECUTIVE SUMMARY:**

*The purpose of today's joint meeting is to inform and receive input from the Regional Council and Policy Committee members on staff's intended approach for responding to comments and preparing revisions to the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS.)*

**STRATEGIC PLAN:**

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

**BACKGROUND:**

Every four years, SCAG, as the Metropolitan Planning Organization (MPO) for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, is required by federal law (23 USCA §134 et seq.) to prepare and update a long-range (minimum of 20 years) Regional Transportation Plan (RTP) that provides for the development and integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG metropolitan planning area. The process for development of the RTP takes into account all modes of transportation and is accomplished by a "continuing, cooperative and comprehensive" (the 3 C's) planning approach, which is also performance-driven and outcome-based. In addition, because the SCAG region is designated as nonattainment for ozone or carbon monoxide under the Clean Air Act (42 U.S.C. §7401 et seq.), the RTP must conform to applicable air quality standards.

The passage of California Senate Bill 375 (SB 375) in 2008 requires that an MPO prepare and adopt a Sustainable Communities Strategy (SCS) that sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce greenhouse gas emissions from automobiles and light duty trucks (Govt. Code §65080(b)(2)(B)). The SCS outlines certain land use growth strategies that provide for more integrated land use and transportation planning, and maximize transportation investments. The SCS is intended to provide a regional land use policy framework that local governments may consider and build upon. Finally, the development of the RTP/SCS is subject to the California Environmental Quality Act (CEQA). Therefore, SCAG also prepares a Program Environmental Impact Report (PEIR) for the RTP/SCS that evaluates the potential environmental impacts associated with the Plan.

Through a continuing, cooperative, and comprehensive planning process with its stakeholders, SCAG developed the Draft 2016 RTP/SCS (also referred to herein as the “Plan”), which meets state and federal requirements and lays out a collective vision for improving the region’s mobility, economy, and sustainability. SCAG released the Draft 2016 RTP/SCS for a 60-day public comment period that began on December 4, 2015 and ended on February 1, 2016. The public review and comment period caps off more than three years of dialogue and consultation on this planning effort. During the public review and comment period, SCAG conducted a large-scale outreach campaign throughout the six-county region to educate and solicit feedback on the Plan. Throughout the month of January, SCAG held 14 elected official briefings and four public hearings, three of which were video-conferenced simultaneously to the regional offices to make them more accessible to residents throughout the region. In addition, SCAG held two PEIR workshops to inform interested parties about the comprehensive environmental analysis that accompanies the Plan. All of materials for the briefings, public hearings, and workshops were posted on SCAG’s website. During our outreach, many expressed their support of the Plan and offered feedback on how the Plan could be further improved. Most of the comments addressed broad themes, such as transportation investments, growth and development patterns, environmental issues (e.g., air quality), implementation of the Plan, and the role of local/regional government.

SCAG encouraged the public to comment on the Plan at the aforementioned outreach events and through the [www.scagrtpscs.net](http://www.scagrtpscs.net) online commenting form and regular mail. SCAG received 158 separate communications (both oral and written) containing approximately 1,000 comments on the Draft 2016 RTP/SCS. A total of 117 comments were received from agencies/organizations and 41 were received from individuals. A summary list of commenters is attached to this report (Attachment 1).

Based on staff’s review, the majority of comments regarding the Draft 2016 RTP/SCS were generally supportive of the Plan. At a summary level, comments can be combined into fifteen (15) major categories as described below. Staff seeks to inform the Regional Council and Policy Committee members and receive input on the intended approach for responding to comments



and preparing revisions. The major categories of RTP/SCS comments and requests for clarification, with a proposed approach described, are as follows.

## 1. ACTIVE TRANSPORTATION

Areas Seeking Clarification– While there were no comments requiring major revisions to the Active Transportation Appendix, many commenters, including advocacy groups and public health agencies and organizations, encouraged SCAG to increase the proposed funding for active transportation investments over the levels identified in the Draft 2016 RTP/SCS of \$12.9 billion. Many also encouraged SCAG to front-load or prioritize investments in active transportation over highway investments. Additionally, commenters wanted a greater emphasis on complete streets in all transportation projects.

Proposed Approach – SCAG will prepare appropriate responses regarding the proposed funding for active transportation in the Final 2016 RTP/SCS. SCAG will propose to pursue greater documentation of active transportation expenditures, and attempt to provide a more complete picture related to local efforts that are not fully captured in the regional plan. These include projects funded through lump-sum maintenance programs and active transportation components of larger multi-modal construction projects.

## 2. AVIATION

Areas Seeking Clarification – Numerous comments were received regarding the aviation demand forecast methodology and the forecast for LAX. The comments focused on SCAG’s justification for developing a forecast that was higher than the expired Settlement Agreement, which through a Gate Cap, limited the airport to 78.9 million annual passengers. Also in regards to LAX, there were questions about the inclusion of ground access projects that had not completed the environmental review process.

Proposed Staff Approach – Most of the comments surrounding the LAX portion of the forecast can be addressed through having a more detailed description on the process and methodology that SCAG went through for the aviation demand forecast. The process was conducted in an open and transparent manner that went before not only SCAG’s Transportation Committee but also the Aviation Technical Advisory Committee. The forecast for the 2016 RTP/SCS used a market based approach, understanding that airlines are deregulated and have the freedom to fly the routes that they want. Due to the nature of the comments, SCAG staff will spend more time in the Final 2016 RTP/SCS better explaining how the regional forecast and the airport specific forecasts were derived.

In terms of including ground access projects in the RTP/SCS that have not received full environmental clearance, there are no regulatory or statutory restrictions that prohibit inclusion of such projects in the RTP/SCS. In fact, inclusion of a project in the RTP/SCS can be viewed as the first step towards implementation of the project. Should the scope and nature of a project

change in the course of the environmental review process, such changes can be reflected in the future RTP/SCS either through the regular update process or through an amendment.

### 3. CONGESTION MANAGEMENT

Areas Seeking Clarification – Comments indicated preference or priority for one transportation strategy or mode over another (e.g., SCAG should invest in transit or active transportation rather than adding new carpool lanes or investing in other Transportation Demand Management/Transportation Systems Management strategies).

Proposed Approach – The 2016 RTP/SCS includes a wide variety of transportation strategies and investments, recognizing that improvements to all transportation modes are necessary in order to reduce congestion and improve the transportation system in the SCAG region. These include transportation demand management, transportation systems management, active transportation investments, land use strategies and multi-modal capital and operating improvements.

### 4. ENVIRONMENTAL JUSTICE

Areas Seeking Clarifications – Many respondents reported satisfaction with the expansion of the technical analysis in the Environmental Justice Appendix, which was well served from an extensive stakeholder engagement process. A number of comments have specifically expressed concern regarding gentrification and displacement as a result of transit investments from the Plan, and have suggested that SCAG expand its analysis in the Appendix. Others requested that SCAG track trends and foster coordination between advocacy groups and local jurisdictions to address these challenges.

Proposed Approach – Staff will expand the gentrification and displacement section of the Environmental Justice Appendix to include additional variables, such as an analysis on the cost burdens for renters and owners for neighborhoods that are within close proximity to rail transit stops. For future updates of the RTP/SCS, SCAG will also continue to work with stakeholders and jurisdictions to look at ways to address social equity challenges, particularly in terms of gentrification and displacement.

### 5. GOODS MOVEMENT

Areas Seeking Clarification – Many of the comments focused on the goods movement environmental strategy including availability and unresolved issues with zero- and near zero-emission technologies and the implementation of these technologies.

Proposed Approach – SCAG recognizes that there are numerous issues to resolve in order to achieve our regional objective of a zero-emissions goods movement system. Our proposed action plan outlined in the Goods Movement Appendix appropriately includes broad timeframes to accommodate different technology readiness levels and allows for technologies to be deployed as they meet necessary criteria.

## 6. HOUSING

Areas Seeking Clarification – Several comments requested that there be more emphasis in the RTP/SCS on housing affordability and the undermining impact unaffordability has on the goals of the RTP/SCS. Moreover, commenters suggested that SCAG track affordable housing building activity to measure local and regional progress.

Proposed Approach – SCAG is committed to working with its local jurisdictions to ensure that their housing elements are in compliance with State housing law and offers technical assistance for affordable housing grant programs. Additionally, SCAG is developing a pilot survey to determine affordable housing building activity in the region. Currently available data by jurisdiction is incomplete and inconsistent and SCAG will be working to increase the State-mandated annual progress report submittal rates in the region so as to provide more information regarding housing affordability in future RTP/SCS updates.

## 7. NATURAL/FARM LANDS

Areas Seeking Clarification – Many commenters expressed general support for policies in the Natural/Farm Lands Appendix, and a strong desire to see SCAG take a leadership role in implementation of a regional conservation program. Many commenters also expressed support for Regional Wildlife corridors and crossings and expressed a desire to see SCAG's recognition and promotion of conservation mechanisms other than Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCPs), such as the programs of local, regional, state and federal agencies and non-profit and non-governmental conservation organizations who help facilitate, coordinate and find funding for land conservation transactions.

Proposed Approach – In the coming years, SCAG will be working with local entities to assist in the cross-jurisdictional coordination of habitat conservation strategies. Conservation groups are encouraged to participate in the effort. In addition, SCAG intends to work with local entities to assist in the cross-jurisdictional coordination of habitat conservation. Suggestions for strategies and mechanisms in addition to HCPs and NCCPs will be encouraged and appreciated.

## 8. MOBILITY INNOVATIONS

Areas Seeking Clarification – Comments noted that the Plan identified specific examples of technology and that ultimately, the marketplace would determine dominant technologies. Commenters suggested that it should be noted that technologies referenced were only examples and that future technologies should not be ignored or excluded from meeting the goals of the RTP/SCS. Commenters also noted that the Plan should consider how to support autonomous vehicles.

Proposed Approach – SCAG's policies are technology neutral with regard to supporting zero and/or near-zero emissions vehicles. SCAG will continue to support natural gas fleet vehicles by

hosting and administering the Southern California Clean Cities Coalition. In addition, SCAG has met regularly with Hydrogen Fuel Cell industry partners. Plug-in Electric vehicles are specifically analyzed in the RTP/SCS due to the transportation/land use policy nexus regard station siting. Regarding car sharing, and ridesourcing, SCAG does not view these as specific technologies, but rather as emerging transportation modes. In the Mobility Innovations Appendix, SCAG identifies various new technologies that show promise in meeting the goals of the RTP/SCS.

In addition, SCAG staff are aware that automated vehicles will be available within the timeframe of the 2016 RTP/SCS. However, SCAG staff note that there is still significant uncertainty regarding the time, and the ownership model for these vehicles. SCAG staff will continue to assemble new sources of data and refine methodologies to analyze these emerging modes.

## 9. PASSENGER RAIL

Areas Seeking Clarification – A comment stated that the California High-Speed Rail Authority (CAHSRA) Draft 2016 Business Plan may include a new strategy to pursue an Initial Operating Segment connecting to the San Francisco Bay Area rather than to the SCAG region as previously envisioned. Another comment requested that clarifying language should be inserted in the RTP/SCS to indicate that SCAG’s support for the California High-Speed Train is contingent upon the MOU commitment of \$1 billion towards local rail improvements.

Proposed Approach – The CAHSRA has reiterated its commitment to the Southern California High-Speed Rail MOU, which calls for \$1 billion in investments in the Metrolink and Los Angeles-San Diego-San Luis Obispo (LOSSAN) systems in Southern California. The CHSRA Board is not expected to adopt the final 2016 Business Plan until after the Regional Council adopts the 2016 RTP/SCS. Consequently, staff proposes that any impacts to the RTP/SCS resulting from the final 2016 Business Plan be reflected through a future RTP/SCS amendment, if necessary. Chapter 5 of the Draft 2016 RTP/SCS already discusses in detail the MOU commitment towards investing \$1 billion in improvements to the Metrolink and LOSSAN systems in advance of the High-Speed Train project, as part of the "blended approach" to delivering high-speed rail service to the SCAG region that was adopted by the Regional Council as part of the 2012 RTP/SCS.

## 10. PUBLIC HEALTH

Areas Seeking Clarification – Many commenters, including advocacy groups and public health agencies and organizations, supported the inclusion of the Public Health Appendix in the Draft 2016 RTP/SCS. Additionally, comments encouraged SCAG to expand analysis of public health outcomes through improved modeling in collaboration with stakeholders for the 2020 RTP/SCS. Several comments suggested that the Plan did not go far enough to curb the use of automobiles and expand the use of transit and active transportation.

Proposed Approach – SCAG will prepare appropriate responses to address the comments received and will document suggestions for further analysis to be included in the 2020 RTP/SCS. These suggestions will be reviewed internally and with stakeholders to ensure that they are implemented in an appropriate manner. SCAG will also monitor the progress made in achieving the goals set in the 2016 RTP/SCS over the next four years and consider developing measurable goals and targets related to public health in future plan updates.

## 11. SUSTAINABLE COMMUNITIES STRATEGY

Areas Seeking Clarification – Comments were received on CEQA incentive eligibility, and other incentive and funding programs, and how to utilize SCAG’s Forecasted Development Type Maps (as shown in the SCS Background Documentation Appendix) to determine SCS consistency. There were some comments requesting for further detailed maps, and some requesting the maps not be utilized to determine any SCS consistency. Additionally, other commenters encouraged SCAG to address possible negative impacts on public health, lower income communities, housing affordability, and rural areas.

Proposed Approach – SCAG will provide clarifying responses to each of the comments submitted and will consider incorporating edits to the text in the Final 2016 RTP/SCS. For CEQA streamlining purposes, the consistency determination of a project with the SCS will be at the discretion of lead agencies. For other incentive and funding programs, SCS consistency will be determined as stated in the respective program’s guidelines.

## 12. TRANSIT

Areas Seeking Clarification – Comments were specific to individual projects, including questions regarding project alignments and termini, costs, technologies and service delivery strategies, and project completion dates. Comments criticized the geographic distribution of investments within the Plan or argued for project acceleration. Also, comments offered criticism of ongoing service realignments at local agencies.

Proposed Approach – SCAG will review and address project specific comments on a case-by-case basis. Generally, SCAG works with the county transportation commissions to identify specific transportation projects for inclusion in the RTP/SCS. In many cases, projects are funded through local option sales tax expenditure plans. Neither funds nor projects can be re-allocated from one county to another. Final determinations regarding transit technologies, project costs, project alignments, and project completion dates are the responsibility of the appropriate lead agency and determined through local planning and project development processes. Service realignments are local issues to be addressed by the appropriate lead agency, in conjunction with the relevant county transportation commission.

### 13. TRANSPORTATION FINANCE

Areas Seeking Clarification – Many of the comments focused on new revenue sources (e.g., mileage-based user fee) and the need for more evaluation, including assurances about the distribution of funds and consideration of the impacts of the fee on different segments of the population.

Proposed Approach – SCAG agrees that additional work is needed including but not limited to evaluating options for implementation, accountability and approaches for protecting privacy as well as addressing income and geographic (e.g., urban vs. rural) equity impacts before the mileage-based user fee (or road charge) would become effective—which is why the Plan does not assume revenues from this source before 2025. Further, state agencies will be conducting a 9 month long pilot test of road charging during the summer of 2016 to address some of these issues. SCAG, in collaboration with local, regional, state and federal stakeholders, will continue to actively participate in efforts to make transportation funding more sustainable in the long-run.

### 14. CONCERNS OR QUESTIONS ON INDIVIDUAL PROJECTS

Areas Seeking Clarification – Several commenters support or oppose, or seek clarification on, individual projects in the RTP/SCS. For example, SCAG received multiple comments supporting or opposing the SR-710 North Project.

Proposed Approach – SCAG will acknowledge and document all support and oppose positions submitted on individual projects as part of the ‘Comments and Responses’ documentation. SCAG will also make every effort to be responsive to all comments seeking clarification through our responses to the comments.

With regard to the SR-710 North Project, SCAG recognizes that the project is currently pending environmental review, and as with other projects included within the Plan’s Project List Appendix, when the SR-710 North Study environmental review process is complete and a locally preferred alternative (LPA) is identified in the final environmental document, SCAG will work with Metro to amend the RTP/SCS as necessary to update the project description and associated modeling analysis. The SR-710 North Project is currently modeled as four toll lanes in each direction. SCAG believes that modeling the SR-710 North Project as a toll lane is justified as it represents a conservative scenario (worst-case) with respect to potential environmental impacts and adequately serves as a placeholder benchmark to analyze the SR-710 North Project’s effect on the entire SCAG region.

### 15. OTHER

Areas Seeking Clarification – Other comments raise questions or concerns that do not fit into the above categories. For example, SCAG received several comments regarding the need to update the Plan to note the latest federal surface transportation legislation, the Fixing America’s Surface

Transportation Act, or “FAST Act,” which was signed into law on December 4, 2015, the day after the Draft 2016 RTP/SCS was approved for release.

Proposed Approach – SCAG will consider revisions to the RTP/SCS generated by other comments on a case-by-case basis. In general, staff will consider revisions where adequate justification has been provided by the commenter (e.g., factual errors). For example, the Plan has been updated to incorporate updated information regarding the FAST Act.

## **UPDATE TO THE DRAFT 2016 RTP/SCS**

In addition to refining the Draft 2016 RTP/SCS in response to the comments and input received through the public comment process, SCAG staff has also worked with each of the County Transportation Commissions (CTCs) to update the list of projects with most current information available. The nature of the updated project information included minor changes to the scope of existing projects, changes to completion years, and minor changes to project costs, etc. SCAG staff has also worked to update the growth forecast to reflect the most updated information, including jurisdictional level for the population and households for the Riverside County unincorporated area, March Joint Powers Authority (JPA) area, and sub-jurisdictional level adjustments for Los Angeles, Simi Valley and Oxnard. The updated information acquired during this time helped SCAG make additional adjustments to the Plan and further refine the Plan’s technical analysis. Accordingly, all of the technical analysis associated with the Draft 2016 RTP/SCS will be updated to reflect the most current information available for the Proposed Final 2016 RTP/SCS. Based on the review of the proposed changes to the projects, which are relatively minor in nature, staff does not anticipate deviating from any of the conclusions presented in the Draft 2016 RTP/SCS, including meeting the greenhouse gas emissions reduction targets pursuant to SB 375 and the Transportation Conformity requirements pursuant to the Federal Clean Air Act.

## **NEXT STEPS**

Staff will provide the proposed Final 2016 RTP/SCS and comment responses at the March 24, 2016 Special Joint Policy Committee meeting. At that meeting, staff will seek a recommendation from the Policy Committees to forward a recommendation to the Regional Council on April 7, 2016 to certify the Final PEIR and adopt the Final 2016 RTP/SCS.

## **FISCAL IMPACT:**

Work associated with this item is included in the Fiscal Year 2015-2016 Overall Work Program (WBS Number 15-010.SCG00170.01: RTP Support, Development, and Implementation).

## **ATTACHMENTS:**

1. Summary List of Commenters on the Draft 2016 RTP/SCS
2. PowerPoint Presentation on Draft 2016 RTP/SCS Public Comments

Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy  
Summary List of Commenters (See Note\*)

**Agencies/Organizations:**

- Albert Perdon and Associates
- Alliance for a Healthy Orange County
- Alliance for a Regional Solution to Airport Congestion
- Banning Ranch Conservancy
- Bel Air Skycrest Property Owner's Association
- Bolsa Chica Land Trust
- California Construction and Industrial Materials Association
- California Cultural Resources Preservation Alliance
- California Department of Transportation
- California High-Speed Rail Authority
- California Native Plant Society – Orange County Chapter
- California State Legislature (Senators Ed Hernandez & Tony Mendoza; Assemblymembers Ed Chau & Roger Hernandez)
- Center for Demographic Research
- City of Alhambra
- City of Anaheim
- City of Calimesa
- City of Claremont
- City of Diamond Bar
- City of Eastvale
- City of El Segundo
- City of Glendale
- City of Irvine
- City of Irwindale
- City of La Cañada Flintridge
- City of La Habra
- City of Laguna Niguel
- City of Lake Forest
- City of Los Angeles
- City of Los Angeles – Department of City Planning
- City of Los Angeles – Department of Transportation
- City of Mission Viejo
- City of Montclair
- City of Monterey Park
- City of Moreno Valley
- City of Rancho Mirage
- City of Riverside
- City of San Clemente
- City of San Gabriel
- City of Santa Clarita
- City of Santa Paula
- City of South Pasadena
- City of Tustin
- Climate Plan
- Cyrus Planning
- Eastern Coachella Valley Coalition
- Encino Neighborhood Council
- Endangered Habitats League
- Environmental Coalition Support for Natural and Farmland Policies
- Five Point Communities
- Friends of Harbors, Beaches, and Parks
- Gateway Cities Council of Governments
- Golden State Gateway Coalition
- Grants To You
- Highgrove Municipal Advisory Council
- Hills for Everyone
- Imperial County Transportation Commission
- Inland Action
- Inland Empire Biking Alliance
- John Wayne Airport
- La Habra 2025
- Laguna Canyon Foundation
- Laguna Greenbelt, Inc.
- Latham and Watkins LLP

\*Reflects comments received and logged as of February 16 and may not be complete. Provided for informational purposes at this time. Commenters wishing to confirm receipt of any comment not shown may contact SCAG staff.

Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy  
 Summary List of Commenters (See Note\*)

- Leadership Counsel for Justice and Accountability
- Letterly Environmental and Land Planning Management
- Local Agency Formation Commission for San Bernardino County
- Los Angeles Area Chamber of Commerce
- Los Angeles County Business Federation
- Los Angeles County – Department of Public Health
- Los Angeles County – Department of Regional Planning
- Los Angeles County – Metropolitan Transportation Authority
- Los Angeles World Airports
- Los Cerritos Wetlands Trust
- March Joint Powers Authority
- Metro Gold Line Foothill Extension Construction Authority
- Move LA
- National Trust for Historic Preservation
- Naturalist For You
- No 710 Action Committee
- Ontario Chamber of Commerce
- Orange County Bicycle Coalition
- Orange County Business Council
- Orange County Council of Governments
- Orange County Health Care Agency
- Orange County League of Conservation Voters
- Orange County Public Works
- Orange County Transportation Authority
- Port of Hueneme
- Port of Los Angeles
- PTS Staffing Solutions
- Public Health Alliance of Southern California
- Puente-Chino Hills Task Force Sierra Club
- Redlands Tea Party Patriots
- Riverside County Transportation Commission
- Rural Canyons Conservation Fund
- Saddleback Canyons Conservancy
- Safe Routes to School National Partnership
- San Bernardino Associated Governments
- San Gabriel Valley Council of Governments
- Sea and Sage Audubon Society
- Sequoyah School
- Sherman Oaks Homeowners Association
- Skirball Cultural Center
- South Bay Cities Council of Governments
- Southern California Gas Company
- Southern California Leadership Council
- SR 60 Coalition
- Transportation Corridor Agencies
- United States Environmental Protection Agency
- Ventura County 350 HUB
- Ventura Hillside Conservancy
- Ventura County Air Pollution Control
- Ventura County Planning Division
- Ventura County Public Works
- Western Riverside Council of Governments
- XpressWest
- 5-Cities Alliance

\*Reflects comments received and logged as of February 16 and may not be complete. Provided for informational purposes at this time. Commenters wishing to confirm receipt of any comment not shown may contact SCAG staff.

Draft 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy  
Summary List of Commenters (See Note\*)

**Contacts With No Affiliation:**

- Margarita Assael
- Enrique Ayala
- Fabricio Bautista
- Keshav Boddula
- Lana Butler
- Michael Cahn
- Tressy Capps
- Bruce Culp
- Sally Dhahbi
- Joyce Dillard
- Hank Fung
- Victor Gar
- John Paul Garcia
- Om Garg
- Jeffrey Giba
- Whitley Gilbert
- Terry Goller
- Ezequiel Gutierrez
- Eileen Harris
- Patricia Bell Hearst
- Richard Helgeson
- Robin Hvidston
- Anna Jaiswal
- Thomas Jatich
- Mark Jolles
- Dolly Leland
- Robert Newman
- Pat Nig
- Kirsty Norman
- Marven Norman
- Eva Okeefe
- Bill Oliver
- Betty Robinson
- Vivian Romero
- Irene Sandler
- Melody Segura
- Kristi Snyder
- Cari Swan
- Carol Teutsch
- Vicki Tripoli
- Jane West

\*Reflects comments received and logged as of February 16 and may not be complete. Provided for informational purposes at this time. Commenters wishing to confirm receipt of any comment not shown may contact SCAG staff.



# 2016 RTP/SCS

## Proposed Approach to Plan Revisions

March 3, 2016

### Draft 2016 RTP/SCS Public Comments

- December 4, 2015: Official release of the Draft 2016 RTP/SCS for a 60-day public comment period
- February 1, 2016: Close of the public comment period
- Public Comments Highlights
  - **158** separate communications (i.e., letters, online comments, public hearing statements, etc.)
  - **117** Agencies/Organizations
  - **41** Individuals
  - **1,000** public comments
  - Natural/Farm Lands, Land Use, Active Transportation, and Highways/Arterials categories received the most comments
  - Most comments supportive of the overall Plan



## 15 Major Categories of Public Comments Requesting Clarifications and Changes

- Active Transportation
- Aviation
- Congestion Management
- Environmental Justice
- Goods Movement
- Housing
- Natural/Farm Lands
- Mobility Innovations
- Passenger Rail
- Public Health
- Sustainable Communities Strategy
- Transit
- Transportation Finance
- Individual Projects
- Other



## Transportation Committee–related public comments

## Active Transportation

- Areas Seeking Clarification
  - Many commenters encourage SCAG to increase the proposed funding for active transportation investments over the levels identified in the Draft 2016 RTP/SCS.
  - Many encourage SCAG to front-load or prioritize investments in active transportation over highway investments.
  - Additionally, commenters wanted a greater emphasis on complete streets in all transportation projects.
- Proposed Approach
  - Propose to pursue greater documentation of active transportation expenditures, and attempt to provide a more complete picture related to local efforts that are not fully captured in the regional plan.

## Aviation

- Areas Seeking Clarification
  - Aviation demand forecast methodology and forecast for LAX.
  - Forecast higher than expired Settlement Agreement.
  - Question inclusion of ground access projects that have not gone thru environmental review process.
- Proposed Staff Approach
  - Provide additional clarification on how regional forecast and airport specific forecasts were derived.
  - Full environmental clearance not a criteria for inclusion in RTP/SCS.

## Congestion Management

- Areas Seeking Clarification
  - Comments indicated preference or priority for one transportation strategy or mode over another.
- Proposed Approach
  - Plan includes a wide variety of transportation strategies and investments, recognizing that improvements to all transportation modes are necessary in order to reduce congestion and improve the transportation system.

## Goods Movement

- Areas Seeking Clarification
  - Environmental strategy - availability and unresolved issues with zero- and near zero-emission technologies and implementation of technologies.
- Proposed Approach
  - Proposed action plan in the Goods Movement Appendix includes broad timeframes to accommodate different technology readiness levels and allows for technologies to be deployed as they meet necessary criteria.

## Mobility Innovations

- Areas Seeking Clarification
  - Comments noted that the Plan identified specific examples of technology and that ultimately, the marketplace would determine dominant technologies.
  - Commenters suggested that technologies referenced were only examples and that future technologies should not be ignored or excluded from meeting the goals of the RTP/SCS.
  - Commenters also noted that the Plan should consider how to support autonomous vehicles.
- Proposed Approach
  - SCAG's policies are technology neutral with regard to supporting zero and/or near-zero emissions vehicles.
  - SCAG staff are aware that automated vehicles will be available within the timeframe of the 2016 RTP/SCS. However, SCAG staff note that there is still significant uncertainty regarding the time, and the ownership model for these vehicles.
  - SCAG staff will continue to assemble new sources of data and refine methodologies to analyze these emerging modes.

## Passenger Rail

- Areas Seeking Clarification
  - CAHSRA Draft 2016 Business Plan may include a new strategy to pursue an Initial Operating Segment connecting to the San Francisco Bay Area rather than to the SCAG region as previously envisioned.
  - Requested that clarifying language should be inserted in the RTP/SCS to indicate that SCAG's support for the California High-Speed Train is contingent upon the MOU commitment of \$1 billion towards local rail improvements.
- Proposed Approach
  - CAHSRA has reiterated its commitment to the Southern California High-Speed Rail MOU, which calls for \$1 billion in investments in the Metrolink and LOSSAN systems in Southern California.
  - CHSRA Board not expected to adopt the final 2016 Business Plan until after the Regional Council adopts the 2016 RTP/SCS.
  - Staff proposes that any impacts to the RTP/SCS resulting from the final 2016 Business Plan be reflected through a future RTP/SCS amendment, if necessary.
  - Chapter 5 of the Draft 2016 RTP/SCS already discusses in detail the MOU commitment towards investing \$1 billion in improvements to the Metrolink and LOSSAN systems in advance of the High-Speed Train project, as part of the "blended approach" to delivering high-speed rail service to the SCAG region that was adopted by the Regional Council as part of the 2012 RTP/SCS.

## Transit

- Areas Seeking Clarification
  - Comments were specific to individual projects, including questions regarding project alignments and termini, costs, technologies and service delivery strategies, and project completion dates.
  - Comments criticized the geographic distribution of investments within the Plan or argued for project acceleration.
  - Comments offered criticism of ongoing service realignments at local agencies.
- Proposed Approach
  - SCAG will review and address project specific comments on a case-by-case basis.
  - Generally, SCAG works with the county transportation commissions to identify specific transportation projects for inclusion in the RTP/SCS.

## Transportation Finance

- Areas Seeking Clarification
  - Many comments focused on new revenue sources (e.g., mileage-based user fee) and need for more evaluation.
- Proposed Approach
  - Additional work needed including, but not limited to evaluating options for implementation, accountability and approaches for protecting privacy as well as addressing income and geographic (e.g., urban vs. rural) equity impacts before the mileage-based user fee (or road charge) would become effective.

## Individual Projects

- Areas Seeking Clarification
  - Several commenters support or oppose, or seek clarification on individual projects in the RTP/SCS.
  - Example: SR-710 North Project
- Proposed Approach
  - Acknowledge and document all support and oppose positions submitted on individual projects.
  - Make every effort to be responsive to comments seeking clarification through responses to the comments.

## Other

- Areas Seeking Clarification
  - Other comments raise questions or concerns that do not fit into the above categories.
  - Example: Inclusion of FAST Act
- Proposed Approach
  - SCAG will consider revisions to the RTP/SCS generated by other comments on a case-by-case basis.

## Community, Economic and Human Development Committee–related public comments

### Housing

- Areas Seeking Clarification
  - Requests for more emphasis in the RTP/SCS on housing affordability and the undermining impact unaffordability has on the goals of the RTP/SCS.
  - Suggested SCAG track affordable housing building activity to measure local and regional progress.
  
- Proposed Approach
  - SCAG is committed to working with its local jurisdictions to ensure that their housing elements are in compliance with State housing law and offering technical assistance for affordable housing grant programs.
  - SCAG is developing a pilot survey to determine affordable housing building activity in the region.
  - SCAG will be working to increase the State-mandated annual progress report submittal rates in the region.

## Natural/Farm Lands

- Areas Seeking Clarification
  - Many commenters expressed a strong desire to see SCAG take leadership role in implementation of a regional conservation program.
  - Many also expressed support for Regional Wildlife corridors and crossings.
  - Expressed a desire to see SCAG's recognition and promotion of conservation mechanisms other than Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCPs).
- Proposed Approach
  - SCAG will be working with local entities to assist in the cross-jurisdictional coordination of habitat conservation strategies.
  - SCAG intends to work with local entities to assist in the cross-jurisdictional coordination of habitat conservation.

## Sustainable Communities Strategy

- Areas Seeking Clarification
  - How to use SCAG's Forecasted Development Type Maps to determine SCS consistency.
  - Requests for further detailed maps.
  - Some requests that the maps not be used to determine any SCS consistency.
  - Others encouraged SCAG to address possible negative impacts on public health, lower income communities, housing affordability, and rural areas.
- Proposed Approach
  - For CEQA streamlining purposes, the consistency determination of a project with the SCS will be at the discretion of lead agencies.
  - For other incentive and funding programs, SCS consistency will be determined as stated in the respective program's guidelines.

## Energy and Environment Committee–related public comments

### Environmental Justice

- Areas Seeking Clarifications
  - A number of comments expressed concern regarding gentrification and displacement as a result of transit investments from the Plan, and requested that the analysis in the Appendix be expanded.
  - Suggested SCAG track trends and foster coordination between advocacy groups and local jurisdictions to address these challenges.
- Proposed Approach
  - SCAG will expand the gentrification and displacement section of the Appendix to include additional variables, such as the difference in housing cost burdens for renters and owners

## Public Health

- Areas Seeking Clarification
  - Encouraged SCAG to expand analysis of public health outcomes through improved modeling in collaboration with stakeholders for the 2020 RTP/SCS.
  - Suggested that the Plan did not go far enough to curb the use of automobiles and expand the use of transit and active transportation.
- Proposed Approach
  - Monitor progress made in achieving the goals set in the 2016 RTP/SCS over the next four years and consider developing measurable goals and targets related to public health in future plan updates.

## Next Steps

**Special Joint Policy Committee Meeting**  
Recommend Certification of the PEIR and  
Adoption of the Final 2016 RTP/SCS

March 24, 2016

**Regional Council**  
Certifies Final PEIR and Adopts  
Final 2016 RTP/SCS

April 7, 2016

**California Air Resources Board**  
Certifies Sustainable Communities Strategy

May 2016

**Deadline for Conformity Determination**  
By FHWA and FTA, in consultation with  
EPA

June 2016



## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### o Moving Forward Transportation Priorities

#### - **Transportation**

- System Preservation – Focus on performance-based regional transportation system management – work with CTCs and Caltrans
- Monitor and prepare for MAP-21 rulemaking on Performance Measures/Targets
- Support implementation of airport regionalization
- Potential New Sales Tax Measure in LA County – may need to initiate amendment to 2016 RTP/SCS shortly after adoption

#### - **Transit/Rail**

- Work on LA-San Bernardino inter-county transit planning studies
- Work on LA-Orange inter-county transit planning studies
- Continue monitoring progress of HSR MOU implementation
- Continue to research and monitor technology impacts to transit and rail

23

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### o Moving Forward Transportation Priorities

#### - **Goods Movement**

- Continue to refine and engage with partner agencies to advance the East-West Freight Corridor
- Collaborate on the implementation of FAST Act freight provisions
- Further encourage the development of clean truck technologies

#### - **Active Transportation**

- Cycle 3 for California Active Transportation Program (ATP)
- GoHuman Campaign

#### - **Mobility Innovations**

- Continue evaluating innovations and data regarding their usage/impacts

24

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ○ Maximizing our Investments

#### - **Economic Benefits**

- Monitor jobs in highway and rail construction, transportation and transit operations and maintenance resulting from the Plan
- With the Plan's guidance, promote and measure economic competitiveness in the region by making it a more attractive place to do business and to live

#### - **Transportation Finance**

- Continue refinement of key value pricing/transportation user fee initiatives
- Continue business case financial assessment of key goods movement initiatives

25

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ○ Building a Shared Vision

#### - **Sustainability**

- Encourage sustainable integration of land use and transportation at the local level through SCAG's New Call for Sustainability Grants
- Expand collaboration with local jurisdictions through Partners in Sustainability Planning Program
- Increase regional share of Cap and Trade grant funding through Round 2 of the Affordable Housing and Sustainable Communities (AHSC) Grants

#### - **Housing**

- Build on affordable housing strategies through SCAG's Upcoming Housing Summit
- Fulfill state's affordable housing initiative through administration of 6th Cycle of the Regional Housing Needs Assessment (RHNA)

26

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ○ Building a Shared Vision

#### - Demographics

- Continue technical collaboration with regional stakeholders and local jurisdictions through the upcoming Annual USC/SCAG Demographic Workshop

#### - GIS Services, Data/Modeling Support

- Further refinement of Trip Based Model and Activity Based Model
- Training for local jurisdictions on Scenario Planning Model (SPM)
- Integrate new technology and other mobility innovations into the technical framework for the 2020 RTP/SCS

27

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ○ Tracking Our Progress

#### - Air Quality

- Comply with federal requirements through the upcoming 2017 FTIP Air Quality Conformity Analysis

#### - Performance Monitoring

- Develop REVISION tool for monitoring SCS implementation both at the local and regional levels

28



Thank you!

Learn more by visiting [www.scagrtpsc.net](http://www.scagrtpsc.net).



This Page Intentionally Left Blank

**Main Office**

818 West 7th Street

12th Floor

Los Angeles, California

90017-3435

t (213) 236-1800

f (213) 236-1825

www.scag.ca.gov

**Officers**

President

Cheryl Viegas-Walker, El Centro

First Vice President

Michele Martinez, Santa Ana

Second Vice President

Margaret Finlay, Duarte

Immediate Past President

Carl Morehouse, San Buenaventura

**Executive/Administration  
Committee Chair**

Cheryl Viegas-Walker, El Centro

**Policy Committee Chairs**Community, Economic and  
Human Development  
Bill Jahn, Big Bear LakeEnergy & Environment  
Deborah Robertson, RialtoTransportation  
Alan Wapner, San Bernardino  
Associated Governments**RESOLUTION NO. 16-578-2**

**A RESOLUTION OF THE SOUTHERN CALIFORNIA  
ASSOCIATION OF GOVERNMENTS APPROVING THE  
2016-2040 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE  
COMMUNITIES STRATEGY (2016 RTP/SCS); RELATED  
CONFORMITY DETERMINATION; AND RELATED CONSISTENCY  
AMENDMENT #15-12 TO THE 2015 FEDERAL  
TRANSPORTATION IMPROVEMENT PROGRAM**

**WHEREAS**, the Southern California Association of Governments (SCAG) is a Joint Powers Agency established pursuant to California Government Code Section 6502 et seq.; and

**WHEREAS**, SCAG is the designated Metropolitan Planning Organization (MPO) for the counties of Los Angeles, Riverside, San Bernardino, Ventura, Orange, and Imperial, pursuant to Title 23, United States Code Section 134(d); and

**WHEREAS**, SCAG is responsible for maintaining a continuing, cooperative, and comprehensive transportation planning process which involves the preparation and update every four years of a Regional Transportation Plan (RTP) pursuant to Title 23, United States Code Section 134 et seq., Title 49, United States Code Section 5303 et seq., and Title 23, Code of Federal Regulations Section 450 et seq.; and

**WHEREAS**, SCAG is the multi-county designated transportation planning agency under state law, and as such, is responsible for preparing and adopting the FTIP (regional transportation improvement program, under state law) every two years pursuant to Government Code §§ 14527 and 65082, and Public Utilities Code §130301 et seq.; and

**WHEREAS**, pursuant to Senate Bill (SB) 375 (Steinberg, 2008) as codified in Government Code §65080(b) et seq., SCAG must also prepare a Sustainable Communities Strategy (SCS) that will be incorporated into the RTP and demonstrates how the region will meet its greenhouse gas (GHG) reduction targets as set forth by the California Air Resources Board (ARB); and

**WHEREAS**, ARB set the per capita GHG emission reduction targets from automobiles and light trucks for the SCAG region at 8% below 2005 per capita emissions levels by 2020 and 13% below 2005 per capita emissions levels by 2035; and

**WHEREAS**, pursuant to Government Code §65080(b)(2)(B), the SCS must: (1) identify the general location of uses, residential densities, and building intensities within the region; (2) identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth; (3) identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584; (4) identify a transportation network to service the transportation needs of the region; (5) gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (1) and (b) of the Government Code Sections 65080 and 65581; and (6) consider the statutory housing goals specified in Sections 65580 and 65581, (7) set forth a forecasted development pattern for the region which when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets, and (8) allow the RTP to comply with air quality conformity requirements under the federal Clean Air Act; and

**WHEREAS**, through the conduct of a continuing, comprehensive and coordinated transportation planning process in conformance with all applicable federal and state requirement, SCAG developed and prepared its latest RTP/SCS, the Final 2016-2040 RTP/SCS (“2016 RTP/SCS”); and

**WHEREAS**, the 2016 RTP/SCS sets forth the long-range regional plan, policies and strategies for transportation improvements and regional growth throughout the SCAG region through the horizon year of 2040; and

**WHEREAS**, the 2016 RTP/SCS includes a regional growth forecast that was developed by working with local jurisdictions using the most recent land use plans and policies and planning assumptions; and

**WHEREAS**, the 2016 RTP/SCS includes a financially constrained plan and a strategic plan. The constrained plan includes transportation projects that have committed, available or reasonably available revenue sources, and thus are probable for implementation. The strategic plan is an illustrative list of additional transportation investments that the region would pursue if additional funding and regional commitment were secured; and such investments are potential candidates for inclusion in the constrained RTP/SCS through future amendments or updates. The strategic plan is provided for information purposes only and is not part of the financially constrained and conforming Final 2016 RTP/SCS; and

**WHEREAS**, the 2016 RTP/SCS includes a financial plan identifying the revenues committed, available or reasonably available to support the SCAG region’s surface transportation investments. The financial plan was developed following basic principles including incorporation of county and local financial planning documents in the region where available, and utilization of published data sources to evaluate historical trends and augment local forecasts as needed; and

**WHEREAS**, the 2016 RTP/SCS includes a sustainable communities strategy which sets forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportations measures and policies, if implemented, will reduce the GHG emissions from automobiles and light trucks to achieve the regional GHG targets set by ARB for the SCAG region; and

**WHEREAS**, the 2016 RTP/SCS must be consistent with all applicable provisions of federal and state law including:

- (1) The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21, PL 112-141) and the metropolitan planning regulations at 23 U.S.C. §134 et seq., as was amended by the Fixing America's Surface Transportation Act (P.L. 114-94, December 4, 2015);
- (2) The metropolitan planning regulations at 23 C.F.R. Part 450, Subpart C;
- (3) California Government Code §65080 et seq.; Public Utilities Code §130058 and 130059; and Public Utilities Code §44243.5;
- (4) §§174 and 176(c) and (d) of the federal Clean Air Act [(42 U.S.C. §§7504 and 7506(c) and (d)] and EPA Transportation Conformity Rule, 40 C.F.R. Parts 51 and 93;
- (5) Title VI of the 1964 Civil Rights Act and the Title VI assurance executed by the State pursuant to 23 U.S.C. §324;
- (6) The Department of Transportation's Final Environmental Justice Strategy (60 Fed. Reg. 33896; June 29, 1995) enacted pursuant to Executive Order 12898, which seeks to avoid disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment;
- (7) Title II of the 1990 Americans with Disabilities Act (42 U.S.C. §§12101 et seq.) and accompanying regulations at 49 C.F.R. §27, 37, and 38; and
- (8) Senate Bill 375 (Steinberg, 2008) as codified in California Government Code §65080(b) et seq.;

**WHEREAS**, SCAG is further required to comply with the California Environmental Quality Act (CEQA) (Cal. Pub. Res. Code § 21000 et seq.) in preparing the 2016 RTP/SCS; and

**WHEREAS**, SCAG prepared a program environmental impact report (PEIR) for the 2016 RTP/SCS. The PEIR serves as a programmatic document that conducts a region-wide assessment of potential significant environmental effects of the 2016 RTP/SCS; and

**WHEREAS**, in non-attainment and maintenance areas for transportation-related criteria pollutants, the MPO, as well as the Federal Highways Administration (FHWA) and Federal Transit Administration (FTA), must make a conformity determination on any updated or amended RTP in accordance with the federal Clean Air Act to ensure that federally supported highway and transit project activities conform to the purpose of the State Implementation Plan (SIP); and

**WHEREAS**, transportation conformity is based upon a positive conformity finding with respect to the following tests: (1) regional emissions analysis, (2) timely implementation of Transportation Control Measures, (3) financial constraint, and (4) interagency consultation and public involvement; and

**WHEREAS**, on April 4, 2012, the SCAG Regional Council found the 2012 RTP to be in conformity with the State Implementation Plans for air quality, pursuant to the federal Clean Air Act and the Environmental Protection Agency (EPA) Transportation Conformity Rule. Thereafter, FHWA and FTA made a conformity determination on the 2012 RTP with said determination to expire on June 4, 2016; and

**WHEREAS**, on September 11, 2014, in accordance with federal and state requirements, the SCAG Regional Council approved the 2015/16 – 2020/21 Federal Transportation Improvement Program (2015 FTIP), which was federally approved on December 15, 2014. The 2015 FTIP represents a staged, multi-year, intermodal program of transportation projects which covers six fiscal years and includes a priority list of projects to be carried out in the first four fiscal years; and

**WHEREAS**, pursuant to Government Code §65080(b)(2)(F) and federal public participation requirements, including 23 C.F.R. §450.316(b)(1)(iv), SCAG must prepare the RTP/SCS by providing adequate public notice of public involvement activities and time for public review. On April 3, 2014, SCAG approved and adopted a Public Participation Plan, to serve as a guide for SCAG's public involvement process, including the public involvement process to be used for the 2016 RTP/SCS, and included an enhanced outreach program that incorporates the public participation requirements of SB 375 and adds strategies to better serve the underrepresented segments of the region; and

**WHEREAS**, pursuant to Government Code §65080(b)(2)(F)(iii), during the summer 2015, SCAG held a series of RTP/SCS public workshops throughout the region, including residents, elected officials, representatives of public agencies, community organizations, and environmental, housing and business stakeholders; and

**WHEREAS**, in accordance with the interagency consultation requirements, 40 C.F.R. 93.105, SCAG consulted with the respective transportation and air quality planning agencies, including but not limited to, extensive discussion of the Draft Conformity Report before the Transportation Conformity Working Group (a forum for implementing the interagency consultation requirements) throughout the 2016 update process; and

**WHEREAS**, the Transportation Conformity Report contained in the Final 2016 RTP/SCS makes a positive transportation conformity determination. Using the final motor vehicle emission budgets released by ARB and found to be adequate by the U.S. Environmental Protection Agency (EPA), this conformity determination is based upon staff's analysis of the applicable transportation conformity tests; and

**WHEREAS**, each project or project phase included in the FTIP must be consistent with the approved RTP, pursuant to 23 C.F.R. §450.324(g). Amendment #15-12 to the 2015 FTIP has been prepared to ensure consistency with the Final 2016 RTP/SCS; and

**WHEREAS**, conformity of Amendment #15-12 to the 2015 FTIP has been determined simultaneously with the 2016 Final RTP/SCS in order to address the consistency requirement of federal law; and

**WHEREAS**, on November 5, 2015, SCAG Policy Committees (comprising the Community, Economic and Human Development Committee; the Energy and Environment Committee; and the Transportation Committee) recommended that the Regional Council at its December 4, 2015 meeting authorize release of the Draft PEIR for a public review and comment period concurrent with the public review and comment period for the Draft 2016 RTP/SCS; and

**WHEREAS**, on December 3, 2015, the Regional Council approved release of the Draft 2016 RTP/SCS PEIR concurrent with release of the Draft 2016 RTP/SCS for a 60-day public review and comment period; and

**WHEREAS**, SCAG released the Draft 2016 RTP/SCS and the associated Draft Amendment #15-12 to the 2015 FTIP for a 60-day public review and comment period that began on December 4, 2015 and ended on February 1, 2016; and

**WHEREAS**, the SCAG also released the Draft PEIR for the 2016 RTP/SCS concurrently with the release of the Draft 2016 RTP/SCS, and issued a Notice of Availability for the same 60-day public review and comment period of December 4, 2015 to February 1, 2016; and

**WHEREAS**, SCAG followed the provisions of its adopted Public Participation Plan regarding public involvement activities for the Draft 2016 RTP/SCS and Draft PEIR. Public outreach efforts included publication of the Draft 2016 RTP/SCS and Draft PEIR on SCAG's web site, distribution of public information materials, held four (4) duly-noticed public hearings (three public hearings were video-conferenced to 4 regional offices in different counties), and 14 elected official briefings. within the SCAG region to allow stakeholders, elected officials and the public to comment on the Draft 2016 RTP/SCS and the Draft PEIR; and

**WHEREAS**, during the public review and comment period, SCAG received 162 verbal and written comment submissions on the Draft 2016 RTP/SCS and 81 comment submissions on the Draft PEIR; and

**WHEREAS**, SCAG staff presented an overview of the comments received on the Draft 2016 RTP/SCS and Draft PEIR, and a proposed approach to the responses, to the Policy Committees and Regional Council at a joint meeting on March 3, 2016; and

**WHEREAS**, comment letters and SCAG staff responses on the Draft 2016 RTP/SCS and Draft PEIR were posted on the SCAG web page on March 14, 2016, and included as part of the Final 2016 RTP/SCS, Public Participation and Consultation Appendix. SCAG also notified all commenters of the availability of the comments and responses; and

**WHEREAS**, on March 18, 2016, SCAG posted the proposed Final RTP/SCS and proposed Final PEIR on its website; and

**WHEREAS**, on March 24, 2016, SCAG's three Policy Committees held a public, special joint meeting to consider a recommendation to the Regional Council to approve and adopt the 2016 RTP/SCS and certify the proposed Final PEIR at the April 7, 2016 Regional Council meeting; and

**WHEREAS**, prior to the adoption of this resolution, the Regional Council certified the Final PEIR prepared for the 2016 - RTP/SCS to be in compliance with CEQA; and

**WHEREAS**, the Regional Council has had the opportunity to review the 2016 Final RTP/SCS and its related appendices as well as the staff report related to the 2016 Final RTP/SCS, and consideration of the 2016 Final RTP/SCS was made by the Regional Council as part of a public meeting held on April 7, 2016.

**NOW, THEREFORE BE IT RESOLVED**, the Regional Council hereby approves and adopts the Final 2016-2040 RTP/SCS.

**BE IT FURTHER RESOLVED** by the Regional Council that:

1. In adopting this Final 2016 RTP/SCS, the Regional Council finds as follows:
  - a. The Final 2016 RTP/SCS complies with all applicable federal and state requirements, including the metropolitan planning provisions as identified in the Code of Federal Regulations Title 23 Part 450 and Title 49, Part 613, and the SCS and other State RTP requirements as identified in California Government Code Section 65080. Specifically, the Final 2016 RTP/SCS fully addresses the requirements relating to the development and content of metropolitan transportation plans as set forth in 23 C.F.R.§450.322 et seq., including issues relating to: identification of transportation facilities that function as an integrated metropolitan transportation system; operational and management strategies; safety and security; performance measures; environmental mitigation; the need for a financially constrained plan; consultation and public participation; and transportation conformity;

- b. The Final 2016 RTP/SCS complies with the emission reduction targets established by the California Air Resources Board and meets the requirements of Senate Bill 375 (Steinberg, 2008) as codified in Government Code §65080(b) et seq. by achieving per capita GHG emission reductions relative to 2005 of 8% by 2020 and 18% by 2035; and
    - c. The Final 2016 RTP/SCS's preferred land use scenario and corresponding forecast of population, household and employment growth is adopted at the jurisdictional level, and any corresponding sub-jurisdictional level data and/or maps is advisory only.
  2. The Regional Council hereby makes a positive transportation conformity determination of the Final 2016 RTP/SCS and Amendment #15-12 to the 2015 FTIP. In making this determination, the Regional Council finds as follows:
    - a. The Final 2016 RTP/SCS and Amendment #15-12 to the 2015 FTIP passes the four tests and analyses required for conformity, namely: regional emissions analysis; timely implementation of Transportation Control Measures; financial constraint analysis; and interagency consultation and public involvement;
  3. In approving the Final 2016 RTP/SCS, the Regional Council also approves and adopts Amendment #15-12 to the 2015 FTIP, in compliance with the federal requirement of consistency with the RTP;
  4. That the foregoing recitals are true and correct and incorporated herein by this reference; and
  5. SCAG's Executive Director or his designee is authorized to transmit the Final 2016 RTP/SCS and its conformity findings to the FTA and the FHWA to make the final conformity determination in accordance with the Federal Clean Air Act and EPA Transportation Conformity Rule, 40 C.F.R. Parts 51 and 93.

**PASSED, APPROVED AND ADOPTED** by the Regional Council of the Southern California Association of Governments at its regular meeting on the 7th day of April, 2016.

[Signatures on Following Page]

---

Cheryl Viegas-Walker  
President, SCAG  
Councilmember, City of El Centro

Attest:

---

Hasan Ikhata  
Executive Director

Approved as to Form:

---

Joanna Africa  
Chief Counsel

DRAFT



# 2016 2040 RTPSCS

A PLAN FOR OUR FUTURE

March 24, 2016  
Special Joint Policy Committee Meeting

## Presentation Outline

- Why We Update the RTP/SCS
- Proposed Final 2016 RTP/SCS Updates
- Core Components & Comment/Response Summary
- Plan Outcomes and Benefits
- Looking Ahead - Beyond 2016 RTP/SCS Adoption
- Schedule
- Recommended Action

## Why Update the RTP/SCS?

- Move people & goods more efficiently
- Increase accessibility
- Meet all legal & statutory requirements
  - ARB targets
  - Transportation air quality conformity
- Allow any federally-funded or regionally-significant projects to maintain their eligibility for federal funding
- Enhance sustainability through integrating land use and transportation resulting in numerous co-benefits
- Align with major trends in demographics & technology



3

## Proposed Final 2016 RTP/SCS Updates

- Documented and responded to every comment received
- Worked with County Transportation Commissions to update Plan's list of projects
- Updated socio-economic data to reflect most current local input
- Re-ran travel demand model and analytical process to reflect the updated transportation network (projects) and socio-economic data
- Prepared an amendment to FTIP (Amendment No. 15-12) to ensure consistency with Final 2016 RTP/SCS
- Revised Plan to reflect updates occurring at the state and federal levels since the time the Plan was approved for release (e.g., FAST Act, CHSRA Draft 2016 Business Plan, etc.)

**Bottom line: With updates, Plan still meets state and federal requirements and helps the region achieve improved mobility, accessibility, and sustainability**

4

## Comment Summary on Draft 2016 RTP/SCS

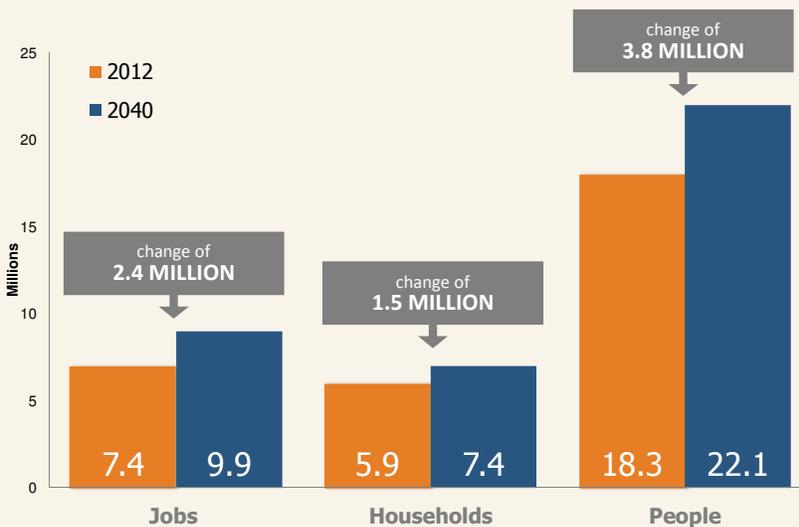
- December 4, 2015: Official release of the Draft 2016 RTP/SCS for a 60-day public comment period
- February 1, 2016: Close of the public comment period
- Public Comments Highlights
  - **162** separate communications (i.e., letters, online comments, public hearing statements, etc.)
  - **1,000** public comments
  - Natural/Farm Lands, Land Use, Active Transportation, and Highways/Arterials categories received the most comments



5

## Why Update the RTP/SCS? What's New Since 2012?

### Changes in Growth and Demography



#### EMERGING TRENDS

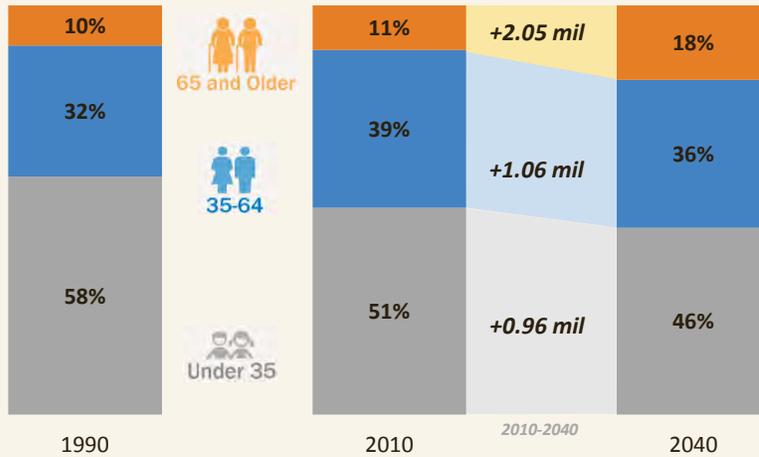
- **Slower Growth**
- Fewer Children
- A Soaring Senior Population
- Increased Demand for Multifamily Housing
- Rapid Technological Advancements

6

## Why Update the RTP/SCS? What's New Since 2012?

### Changes in Growth and Demography

#### Current & Future Population by Age Group in SCAG Region



#### EMERGING TRENDS

- Slower Growth
- **Fewer Children**
- **A Soaring Senior Population**
- Increased Demand for Multifamily Housing
- Rapid Technological Advancements

Source: US Census 1990, 2010; SCAG 2016 RTP/SCS Growth Forecast, 2016.

7

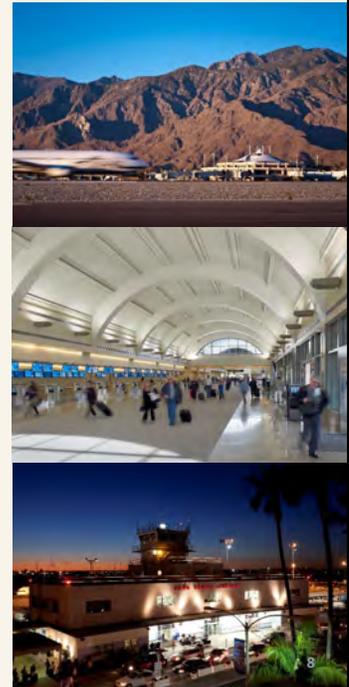
## Core Components: Aviation

### 2040 AIR PASSENGER FORECAST

Airport Specific Demand, Million Annual Passengers (MAP)

Midpoint of 2040 Total  
Regional Aviation Demand:

**136.2 MAP**



8

## Comment/Response Summary: Aviation

### Areas Seeking Clarification

- Aviation demand forecast methodology and forecast for LAX.
- Forecast higher than expired Settlement Agreement.
- Question inclusion of ground access projects that have not gone through environmental review process.

### Response

- SCAG clarified demand forecast methodology and airport capacity data.
- SCAG clarified that projects included in the Plan do not need to have received full environmental clearance.

9

## Core Components: Passenger Rail and Transit



Light and Heavy  
Rail Extensions



Bus Rapid Transit  
Expansion



Metrolink/  
LOSSAN  
Upgrades

10

## Comment/Response Summary: Passenger Rail

### California High-Speed Rail

#### Areas Seeking Clarification

- Comment regarding CHSRA Draft 2016 Business Plan including new Initial Operating Segment (IOS).
- Comment regarding SCAG's support of California High-Speed Train contingent on MOU commitment of \$1 billion towards local rail improvements.

#### Response

- Draft RTP/SCS discusses the MOU in detail, and staff is working with CHSRA and MOU agencies to reaffirm commitment to Southern California Rail MOU.
- Draft 2016 Business Plan does not alter completion date for Phase 1 to Los Angeles/Anaheim. Changes to IOS will be incorporated in a future RTP/SCS amendment.

11

## Core Components: Financial Plan \$556.5 Billion (in nominal dollars)



Note: numbers may not sum to total due to rounding

12

## Comment/Response Summary: Financial Plan

### Areas Seeking Clarification

- Many comments focused on new revenue sources (e.g., mileage-based user fee) and the need for more evaluation.

### Response

- SCAG concurs additional work is needed (e.g., evaluating options for implementation, accountability and approaches for protecting privacy, addressing income and geographic equity impacts).
- Plan does not assume revenues from this source before 2025.

13

## Core Components: Highway and Arterials

- Focus on System Preservation
  - State Highway Preservation \$65.8 billion
  - Regionally Significant Local Roads \$37.3 billion
- Capital Investment
  - State Highway System \$35.8 billion
  - Regionally Significant Local Roads \$18.4 billion



14

## Comment/Response Summary: Highways and Arterials

### Areas Seeking Clarification

- Multiple comments concerning the number of highways projects included within the Plan and the need for investments in other modes (e.g., transit, active transportation, etc.).

### Response

- Plan is grounded in a multi-modal approach towards addressing congestion and provides individuals with various options ranging from transit, bicycling, and walking as a means towards reducing single occupancy demand (SOV) demand on highways and local arterials

15

## Core Components: Project List

- Bottoms up approach – Six County Transportation Commissions (CTCs) provided extensive input.
- Projects included deemed regionally significant and/or anticipate to receive (or already receiving) federal and state funds.
- Project List includes approximately 4,000 projects (including FTIP projects) and range from highway improvements, railroad grade separations, bicycle lanes, and new transit hubs.
- Examples of projects: High Desert Corridor, Metro Purple Line Westside Extension, Perris Valley Line Extension, OC Streetcar, and SR-98 widening improvements.



16

## Comment/Response Summary: Project List

### Areas Seeking Clarification

- Several commenters support or oppose, or seek clarification on specific projects, such as SR-710 North Project

### Response

- SCAG recognizes projects must go through environmental review process at project level and respects the local process to identify locally preferred alternative (LPA).
- When environmental review is completed and a LPA is identified, SCAG will work with the sponsoring CTC to amend the RTP/SCS as necessary to update the project description and modeling analysis.

17

## Core Components: Goods Movement

Over **\$70 Billion**

- East-West Freight Corridor
- Port access
- Freight rail capacity
- Grade separations
- Truck bottleneck projects
- Intermodal facilities
- Emission reduction strategies



18

## Comment/Response Summary: Goods Movement

### Areas Seeking Clarification

- Environmental strategy - availability and unresolved issues with zero- and near zero-emission technologies and implementation of technologies.

### Response

- Action plan in the Goods Movement Appendix includes broad timeframes to accommodate different technology readiness levels and allows for technologies to be deployed as they meet necessary criteria.

19

## Core Components: Environmental Justice

### Summary of Performance Areas

- Low income and minority groups will benefit from the Plan more than they pay
- Accessibility to jobs, shopping, and parks will improve as well
- Roadway, transit, and bike lane improvements will proportionately serve low income and minority neighborhoods
- Emissions reductions from the Plan will occur at the regional level, as well as in all “areas of concern”



20

## Comment/Response Summary: Environmental Justice

### Areas Seeking Clarification

- A number of comments expressed concern regarding gentrification and displacement as a result of transit investments from the Plan, and requested that the analysis in the Appendix be expanded.

### Response

- SCAG expanded gentrification and displacement section of the Environmental Justice Appendix to include additional ethnicity variables and median housing prices for owners in TOD areas.
- SCAG also incorporated expanded discussion on affordable housing.

21

## Core Components: Sustainable Communities Strategy

### Focusing new growth around transit

- Anticipates market trends
- Expands transportation & housing choices
- Reinforces jobs/housing connection
- New households (46%) and jobs (55%) within ½ mile of a transit stop or a transit corridor
- Diverts growth away from natural lands to areas with services and infrastructure

### Concepts

- High Quality Transit Areas (HQTAs)
- Livable Corridors
- Neighborhood Mobility Areas



22

## Comment/Response Summary: Sustainable Communities Strategy

### Areas Seeking Clarification

- How to use SCAG's Forecasted Development Type Maps and corresponding data to determine SCS consistency.
- Requests for further detailed maps.
- Some requests that the maps not be used to determine any SCS consistency.
- Others encouraged SCAG to address possible negative impacts on public health, lower income communities, housing affordability, and rural areas.

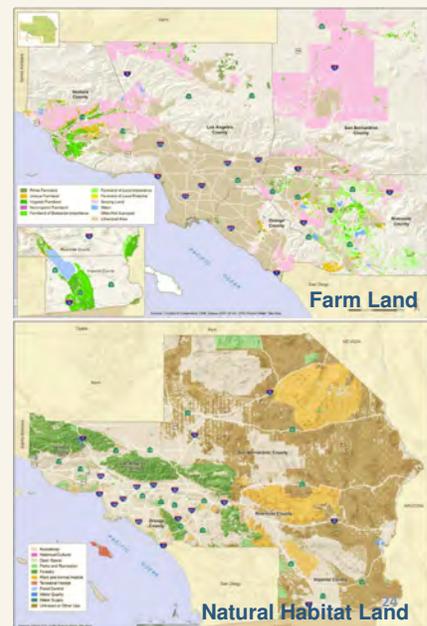
### Response

- For CEQA purposes, the consistency determination of a project with the SCS will be at the discretion of lead agencies.
- Plan will be adopted at jurisdictional level, any data at a geography smaller than the jurisdictional level is advisory only.
- Plan supports ARB guideline consistency regarding location of sensitive uses.

23

## Core Components: Natural Farm Lands

- Expand upon the Open Space Conservation Database and Framework
- Encourage CTCs to develop advance mitigation programs and/or include them in future transportation measures
- Align with funding opportunities and pilot programs to begin implementation of the Natural Lands Conservation Plan through acquisition and restoration
- Provide incentives to jurisdictions that cooperate across county lines to protect and restore natural habitat corridors, especially where corridors cross county boundaries.
- 36 square miles less greenfield land is consumed with the 2016 RTP/SCS.



## Core Components: Active Transportation

Invests nearly \$13 billion to:

- Improve bicyclist/pedestrian safety
- Make better connections with transit
- Improve walkability in neighborhoods
- Make it more convenient to walk or bike to destinations
- Connect the region with bikeways, river paths and bike paths (Greenways)



25

## Core Components: Technology and Mobility Innovation

Potential Significant GHG Reductions from Mobility Innovations by 2040

- Zero-Emissions Vehicle (ZEV)
- Neighborhood Electric Vehicle
- Carsharing/Ridesourcing

Continue to monitor development of driverless and connected vehicles



26

# FOCUS PLAN PERFORMANCE RESULTS

## Spending Less Time on the Road

**20.5 miles**  
average daily vehicle miles driven per person



**9.2 mins**  
daily delay per capita (extra time spent in traffic)



## More Economic Opportunities



**\$1.00 = \$2.00**  
INVESTMENT BENEFIT



**351,000**  
additional jobs supported by improving competitiveness

## Efficiency Cost Savings

HOUSEHOLD COSTS (transportation/energy/water use)

**\$14,000/yr**



REDUCTION IN BUILDING ENERGY COSTS



PASSENGER VEHICLE FUEL USE



## Improved Air Quality



**GHG REDUCTIONS**



# PLAN PERFORMANCE RESULTS IN THE SCAG REGION

## Daily Minutes of Delay per capita



Baseline to Plan Comparison: **-39%**  
Base Year to Plan Comparison: **-22%**

## Daily Vehicle Miles Traveled (VMT) per capita



Baseline to Plan Comparison: **-7.4%**  
Base Year to Plan Comparison: **-10.2%**

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ▪ Moving Forward Transportation Priorities

#### ▪ **Transportation**

- System Preservation – Focus on performance-based regional transportation system management – work with CTCs and Caltrans
- Monitor and prepare for MAP-21 rulemaking on Performance Measures/Targets
- Support implementation of airport regionalization
- Potential New Sales Tax Measure in LA County – may need to initiate amendment to 2016 RTP/SCS shortly after adoption

#### ▪ **Transit/Rail**

- Work on LA-San Bernardino inter-county transit planning studies
- Work on LA-Orange inter-county transit planning studies
- Continue monitoring progress of HSR MOU implementation
- Continue to research and monitor technology impacts to transit and rail

29

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ▪ Moving Forward Transportation Priorities

#### ▪ **Goods Movement**

- Continue to refine and engage with partner agencies to advance the East-West Freight Corridor
- Collaborate on the implementation of FAST Act freight provisions
- Further encourage the development of clean truck technologies

#### ▪ **Active Transportation**

- Cycle 3 for California Active Transportation Program (ATP)
- GoHuman Campaign

#### ▪ **Mobility Innovations**

- Continue evaluating innovations and data regarding their usage/impacts

30

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ▪ Maximizing our Investments

#### ▪ **Economic Benefits**

- Monitor jobs in highway and rail construction, transportation and transit operations and maintenance resulting from the Plan
- With the Plan's guidance, promote and measure economic competitiveness in the region by making it a more attractive place to do business and to live

#### ▪ **Transportation Finance**

- Continue refinement of key value pricing/transportation user fee initiatives
- Continue business case financial assessment of key goods movement initiatives

31

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ▪ Building a Shared Vision

#### ▪ **Sustainability**

- Encourage sustainable integration of land use and transportation at the local level through SCAG's New Call for Sustainability Grants
- Expand collaboration with local jurisdictions through Partners in Sustainability Planning Program
- Increase regional share of Cap and Trade grant funding through Round 2 of the Affordable Housing and Sustainable Communities (AHSC) Grants

#### ▪ **Housing**

- Build on affordable housing strategies through SCAG's Upcoming Housing Summit
- Fulfill state's affordable housing initiative through administration of 6th Cycle of the Regional Housing Needs Assessment (RHNA)

32

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ▪ Building a Shared Vision

#### ▪ **Demographics**

- Continue technical collaboration with regional stakeholders and local jurisdictions through the upcoming Annual USC/SCAG Demographic Workshop

#### ▪ **GIS Services, Data/Modeling Support**

- Further refinement of Trip Based Model and Activity Based Model
- Training for local jurisdictions on Scenario Planning Model (SPM)
- Integrate new technology and other mobility innovations into the technical framework for the 2020 RTP/SCS

33

## Looking Ahead - Beyond 2016 RTP/SCS Adoption

### ▪ Tracking Our Progress

#### ▪ **Air Quality**

- Comply with federal requirements through the upcoming 2017 FTIP Air Quality Conformity Analysis

#### ▪ **Performance Monitoring**

- Develop REVISION tool for monitoring SCS implementation both at the local and regional levels

34

**RECOMMENDED  
ACTION**

**Recommend that the Regional Council approve and adopt the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS), including the associated conformity determination and the associated Consistency Amendment No. 15-12 to the 2015 Federal Transportation Improvement Program (FTIP), by adopting Resolution No. 16-578-2.**

35



**2016  
2040 RTPSCS**

**PROGRAM ENVIRONMENTAL  
IMPACT REPORT**

March 24, 2016  
Special Joint Policy Committee Meeting

## What is Program Environmental Impact Report (PEIR)?

- A programmatic Environmental Impact Report (EIR) prepared pursuant to CEQA
- Analyzes significant environmental effects of the 2016 RTP/SCS as a whole and discusses ways to mitigate the effects (CEQA Guidelines Section 15362)
- **The Final PEIR must first be certified by the Regional Council prior to approving the 2016 RTP/SCS (CEQA Guidelines §15090)**

37

## Process – Outreach:

- Two scoping meetings for the Notice of Preparation (NOP) (March 2015):
  - Scoping Meeting 1: March 17, 2015
  - Scoping Meeting 2: March 18, 2015
- Outreach for the Draft PEIR (April-November 2015):
  - Stakeholders and agencies meetings: July-August 2015
  - Two Native American consultation workshops: October 2015
  - SCAG Policy Committees and Technical Working Group review and feedback: July-November 2015
- Outreach for the Proposed Final PEIR (December 2015-March 2016):
  - Stakeholders and agencies meetings: December 2015-February 2016
  - SCAG Policy Committees and Technical Working Group review and feedback: January-March 2016

38

### **Process – Release of the Draft PEIR:**

- **December 4, 2015:** Official release of the Draft 2016 RTP/SCS PEIR for a 60-day public review and comment period
- **January 19, 2016:** Two public workshops on the Draft 2016 RTP/SCS PEIR
- **February 1, 2016:** Close of the public comment period

39

### **Five Major Components of the Proposed Final PEIR:**

1. Chapters 1 – 7 of the Draft PEIR, inclusive of the appendices
2. Chapter 8 of the Final PEIR – Comments on the Draft PEIR and Response to Comments on the Draft PEIR
3. Chapter 9 of the Final PEIR – Clarifications and Revisions to the Draft PEIR
4. Findings of Fact and a Statement of Overriding Considerations (Exhibit A attached to the Resolution)
5. Mitigation Monitoring and Reporting Program (MMRP) (Exhibit B attached to the Resolution)

40

## 1<sup>st</sup> Component of the Proposed Final PEIR – Draft PEIR (Chapters 1-7)

1. Executive Summary
2. Chapter 1 – Introduction
3. Chapter 2 – Project Description
4. Chapter 3 – Environmental Impact Analysis and Mitigation Measures (18 Resource Categories)
  - 1) Definitions
  - 2) Regulatory Framework
  - 3) Existing Conditions
  - 4) Methodology
  - 5) Impact Analysis (including Significance Thresholds, and analysis of Direct, Indirect and Cumulative Impacts)
  - 6) Performance Standards-based Mitigation Measures
  - 7) Level of Significance after Mitigation
5. Chapter 4 – Alternatives
6. Chapter 5 – Long Term CEQA Conditions
7. Chapter 6 – Persons and Sources Consulted
8. Chapter 7 – Glossary
9. Appendices (including the Health Risk Assessment Technical Report)

41

## 2<sup>nd</sup> Component of the Proposed Final PEIR – Chapter 8: Draft PEIR Comments and Responses to Comments

### Draft PEIR Public Comments Highlights

- 81 comment letters\*
- Approximately 250 comments
- On both the Draft 2016 RTP/SCS and the Draft PEIR
- Substantively similar or duplicative Draft PEIR comments with recurring themes
- Comments were generally constructive
- Comments requested clarifications and revisions to the Draft PEIR

\* Includes seventy-five (75) timely submission of comment letters and six (6) comment letters that were received after the comment period ended. \*\* Includes two (2) letters from the same state agency.  
\*\*\* Includes two (2) letters from the same SCAG member jurisdiction.

42

## **2<sup>nd</sup> Component of the Proposed Final PEIR – Addressing Recurring Themes**

### **Theme 1 – Addressing Comments related to the Draft 2016 RTP/SCS:**

- Master Response No. 1:
  - Responses to comments in the Proposed Final PEIR focused on CEQA topics and environmental issues analyzed in the Draft PEIR
  - Responses to Draft Plan comments are documented through a distinct submission ID and responded to through the Draft Plan review and response process
  - Uses submission ID to refer back to Draft Plan responses

43

## **2<sup>nd</sup> Component of the Proposed Final PEIR – Addressing Recurring Themes**

### **Theme 2 – Program EIR vs. Project EIR:**

- Master Response No. 2:
  - Comments on air quality, greenhouse gas emissions, and noise impacts requested site- and/or project-specific analysis (e.g., LAX, SR-710 North Project Study and others)
  - This PEIR has a programmatic focus on the regional scale of the 2016 RTP/SCS as a whole (CEQA Guidelines Section 15168)
  - Does not analyze specific site or individual project impacts

44

## **2<sup>nd</sup> Component of the Proposed Final PEIR – Addressing Recurring Themes**

### **Theme 3 – Technical Process and Modeling:**

- Master Response No. 3:
  - Comments requested additional information on technical modeling underlying Draft PEIR analysis
  - Explains technical modeling process and computer tools that were used for air quality and greenhouse gas emissions analysis
  - Clarifies that technical modeling has a regional focus and produces regional modeling results

45

## **2<sup>nd</sup> Component of the Proposed Final PEIR – Addressing Recurring Themes**

### **Theme 4 – Performance Standards-based Mitigation Measures:**

- Master Response No. 4:
  - Comments requested modifications to the Draft PEIR mitigation measures
  - Performance standards-based mitigation measures are provided in the PEIR in accordance with the Guiding Principles and performance standards-based approach to mitigation measures approved by the EEC in October 2015
  - Distinguish SCAG’s mitigation measures and project level mitigation measures
  - This distinction recognizes SCAG’s limited authority and CEQA obligations as lead agency, and maintains local flexibility

46

### 3<sup>rd</sup> Component of the Proposed Final PEIR

#### Chapter 9: Clarifications and Revisions to the Draft PEIR

- Reviewed the updates of transportation modeling and socio-economic data;
- Conducted CEQA assessment to determine that the updates do not change the findings in the Draft PEIR (CEQA Guidelines Section 15088.5 (b));
- Revised the Draft PEIR and supporting appendices to incorporate clarifications and revisions, where appropriate, in response to comments, and staff-initiated text revisions.

**Bottom line: With public comments and updates, the conclusions regarding the significance of the impacts in the Draft PEIR were not affected.**

47

### 4<sup>th</sup> Component of the Proposed Final PEIR

#### Findings of Fact and a Statement of Overriding Considerations (Exhibit A to the Resolution)

- They are prepared pursuant to applicable CEQA Guidelines Sections
- Findings of Fact describes facts, discussions, and conclusions reached in the environmental review relative to impacts, mitigation measures, and selection of an alternative
- A Statement of Overriding Considerations describes that the benefits of the 2016 RTP/SCS outweigh and override the significant and unavoidable environmental impacts associated with the Plan

48

## **5<sup>th</sup> Component of the Proposed Final PEIR**

### **Mitigation Monitoring and Reporting Program (MMRP) (Exhibit B to the Resolution)**

- It is prepared pursuant to applicable CEQA Guidelines Sections
- It is a table that lists each impact, SCAG's mitigation measure, performance standards-based project level mitigation measures, the implementing agency, and the implementing date

49

## **Looking Ahead – Beyond 2016 RTP/SCS Program Environmental Impact Report**

- Helping local jurisdictions reduce the burdens for CEQA work at project level
- Fulfilling SCAG's Mitigation Measures Responsibilities
- Facilitating CEQA reviews for 2016 RTP/SCS amendments

50

## Upcoming Schedule

Considers certification of the Final PEIR  
Final Adoption of 2016 RTP/SCS

April 7, 2016

Reviewing Agencies Approve 2016 RTP/SCS & PEIR

June 2016

51

**RECOMMENDED  
ACTION**

**Recommend that the Regional Council certify the Final Program Environmental Impact Report (PEIR) for the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) and adopt Findings of Fact, a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program associated with the Final PEIR, by adopting Resolution No. 16-578-1.**

52



Thank you!

Learn more by visiting [www.scag.ca.gov](http://www.scag.ca.gov). Contact SCAG at: [2016PEIR@scag.ca.gov](mailto:2016PEIR@scag.ca.gov)

