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MEETING OF THE

REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE

***Monday, September 30, 2019
10:00 a.m. – 12:00 p.m.***

SCAG OFFICES

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

VIDEOCONFERENCE AVAILABLE

VIDEOCONFERENCE <https://scag.zoom.us/j/220315897>
CONFERENCE NUMBER 669-900-6833
MEETING ID 220 315 897

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Steve Fox at (213) 236-1855 or via email at fox@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) 236-1908. We request at least 72 hours (three days) notice to provide reasonable accommodations and will make every effort to arrange for assistance as soon as possible.

**REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE
AGENDA
Monday, September 30, 2019**

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.

1.0 CALL TO ORDER
(Gary Hewitt, OCTA, 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 <u>RECEIVE AND FILE</u>	<u>Time</u>	<u>Page</u>
3.1 <u>Minutes of the July 31, 2019 RTTAC Meeting</u>		4
3.2 <u>ADA Paratransit Demand Forecast</u>		8
3.3 <u>Tactical Transit Study</u>		11

4.0 <u>INFORMATIONAL ITEMS</u>		
4.1 <u>Transit Asset Management Performance Target Setting</u> <i>(Herb Higginbotham, Project Manager, Cambridge Systematics)</i>	20	12
4.2 <u>Redlands Rail Arrow Project</u> <i>(Carrie Schindler, Director, Transit and Rail, SBCTA)</i>	20	30
4.3 <u>Regional Housing Needs Assessment (RHNA) Update</u> <i>(Ping Chang, Manager, Compliance and Performance Monitoring, SCAG)</i>	20	42
4.4 <u>Draft Connect SoCal Transit/Rail Element</u> <i>(Philip Law, Manager, Transit/Rail, SCAG)</i>	20	59

**REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE
AGENDA
Monday, September 30, 2019**

5.0 STAFF REPORT

- | | | |
|-----|--|---|
| 5.1 | <u>CARB Innovative Clean Transit – Upcoming Regional Meetings</u>
<i>(Philip Law, Manager, Transit/Rail, SCAG)</i> | 5 |
| 5.2 | <u>Integrated Rail Forecast Study</u>
<i>(Steve Fox, Senior Regional Planner, SCAG)</i> | 5 |

6.0 ADJOURNMENT

The next Regional Transit Technical Advisory Committee meeting is tentatively scheduled for Wednesday, January 29, 2020.

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

Wednesday, July 31, 2019

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 Vice Chair, Joyce Rooney, Redondo Beach Transit.

Members Present:

Joyce Rooney (Vice Chair)	Redondo Beach Transit
Lori Huddleston	LACMTA
Scott Green	LACMTA
Teresa Wong	LACMTA
Rory Vaughn	Metrolink
Danielle Dirksen	Metrolink
Joel Lessard-Clouston	Metrolink
Tracy Beidleman	Long Beach Transit
Stephanie Sampson	Los Angeles World Airports
Glenda Silva	Los Angeles World Airports
Evelyn Quintanilla	Los Angeles World Airports

Videoconference:

Geraldina Romo	Antelope Valley Transportation Authority
Martin Tompkins	Antelope Valley Transportation Authority

Teleconference and Web Meeting:

Tim McCormick	Big Blue Bus
Medford Auguste	LACMTA
James Lee	Torrance Transit
Martha Masters	Riverside County Transportation Commission
Alex Porlier	Santa Clarita Transit
Caitlin Zane	Culver City Bus
Herb Higginbotham	Cambridge Systematics

SCAG Staff:

Philip Law	Stephen Fox
Stephen Fox	Hiroshi Ishikawa
Marisa Laderach	Tom Vo
Javiera Cartegena	Rachael Wagner

1.0 CALL TO ORDER

Joyce Rooney, Redondo Beach Transit, called the meeting to order at 10:02 a.m.

2.0 PUBLIC COMMENT PERIOD

No members of the public requested to comment.

3.0 RECEIVE AND FILE

- 3.1 Minutes of the April 29 and May 29, 2019 RTTAC Meetings
- 3.2 Connect SoCal: Emerging Transit Technologies
- 3.3 Partnerships Between Transit Agencies and Transportation Network Companies
- 3.4 Lessons Learned from the Pinellas Suncoast Transit Authority's Direct Connect Pilot
- 3.5 2019 RTTAC Agenda Look Ahead

4.0 INFORMATION ITEMS

4.1 Connect SoCal Outreach

Javiera Cartagena, SCAG staff, provided an update on public outreach efforts for the 2020 Regional Transportation Plan/Sustainable Communities Strategy which is titled, "Connect SoCal." Ms. Cartagena stated that 28 public workshops have been conducted to dialogue with the public to discuss regional issues and explore potential solutions. She noted there were greater than 500 participants in the workshops who were engaged and encouraged to share their views on the future of the region through a structured process including a formal survey. In addition, a tele-town hall meeting was conducted reaching over 200 – 700 participants throughout the call. Further, there was outreach to community based organizations particularly those who have been underrepresented in the past. This reached an additional 1,600 members of the public. In addition, an advertising effort was conducted to reach out to the public.

Ms. Cartagena reviewed survey results noting that 4,000 responses were received throughout the region using a web based technology. She stated housing affordability and traffic congestion were the top challenges reported in the survey. Transportation improvements such as safer streets, reduced travel times, improved access to transit were noted as top concerns. Additionally, growth near job centers and within cities particularly near transit were preferred by survey respondents.

Joyce Rooney, Redondo Beach Transit, asked how bilingual participation was conducted for the town hall tele-meetings. Ms. Cartagena responded that bilingual staff was available to translate the questions and responses.

4.2 LAX LAMP and APM

Glenda Silva, Los Angeles World Airports (LAWA), reported on LAWA's Landside Access Modernization Program (LAMP). Ms. Silva stated that LAX served 87.5 million air passengers in 2018 and is currently in the midst of a \$14.3 billion capital improvement program designed to improve traffic congestion and

passenger experience. She noted LAMP includes several components including an Automated People Mover (APM), Consolidated Rent-a-Car Facility (ConRAC), Intermodal Transportation Facility (ITF-W) as well as roadway improvements. She noted the Automated People Mover is a 2.25 mile elevated guideway that will be free to passengers that will access 3 stations outside the central terminal area and 3 stations inside of it. Further, each train can transport 200 passengers and it will take 10 minutes. An additional component is the APM Maintenance & Storage Facility which will contain a control system, test tracks, vehicle storage and a train wash.

Ms. Silva reviewed the Intermodal Transportation Facility which will provide a new pick-up and drop-off and parking location away from the terminal area. She noted the 1.7 million square foot facility will have 4,500 parking spaces offering short and long term parking in addition to a meet and greet area. Additionally, an Airport Metro Connector (AMC) Station will connect with the Crenshaw/LAX and Green Line Stations where passengers can take the APM to the terminal area. She next reviewed the Consolidated Rent-A-Car Facility (ConRAC) which will house all rental vehicle activity in a 5.3 million square foot facility with 17,000 parking stalls which will also link with the APM. Ms. Silva reviewed the construction schedule and the different communication tools to inform airport users during construction.

Lori Huddleston, LACMTA, asked about the previous use of the property on which the ConRAC will be built. Ms. Silva stated the land has been owned by LAWA for years and with this expansion effort it is now being completely turned over to them.

Tim McCormick, Big Blue Bus, asked about planning for municipal bus providers. Ms. Silva responded that those bus providers will be able to access the ITF in order to connect their riders with the Automated People Mover.

4.3 Bus/Rail Interface Plans for LAX

Scott Greene, LACMTA, reported on bus and rail interface plans for LAX. Mr. Greene stated that the LAX City Bus Center at 96th Street slightly east of Sepulveda Blvd. has been open since 2018. He noted currently the area is served by numerous bus lines averaging 1,200 weekday boardings. Further, this is an interim facility as all bus service will be consolidated at the Metro Airport Connector bus hub on Aviation Blvd. which will link to the Crenshaw/LAX light rail service and to the APM when it is opened. The Century/Aviation Station will also have stops for Big Blue Bus, Culver City Bus and Beach Cities Transit in addition to 4 Metro bus lines.

Joyce Rooney, Redondo Beach Transit, asked if the Century Aviation Station would have a direct pathway to the shuttle pick up area or would passengers need to walk along Century Blvd. where the sidewalks are narrow. Mr. Greene stated that customers would be required to walk along Century Blvd. and this would only be a 3-year temporary situation until the APM is opened.

4.4 Environmental Justice & Connect SoCal

Tom Vo, SCAG staff, gave an update on Environmental Justice Accessibility Performance Metrics. Fundamental principles of Environmental Justice (EJ) include ensuring the full and fair participation by all potentially affected communities in the transportation decision-making process and preventing the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. Mr. Vo then described SCAG’s EJ Assessment Process, which has a robust public participation process. Mr. Vo also went over SCAG’s EJ policy, which is similar to the federal policy. This policy will be incorporated in to Connect SoCal. Connect SoCal has an Environmental Justice technical report. The draft Connect SoCal document will be released in early November, and the final will be approved in April 2020.

4.5 Transit Asset Management Performance Target Setting

Herb Higgenbotham, project manager with Cambridge Systematics (CS), gave an update on the Transit Asset Management (TAM) target setting process. He stated SCAG is about a third of the way through this process. This effort is based on new FTA rules requiring MPOs to set regional targets through the RTP/SCS process. These targets will be incorporated in to 2020 Connect SoCal, then every four year RTP/SCS process. Earlier this month, training sessions were held in Los Angeles, Riverside, San Bernardino and Ventura counties. CS has also queried other MPOs to see how they are fulfilling these new federal requirements.

Targets will be set for both the short-term and the long-term, coinciding with Connect SoCal’s 2045 horizon year. Several funding scenarios will be considered, including a baseline, a constrained, based on the state-of-good-repair funding that is reasonably expected to be available, and an unconstrained scenario. TAM targets and funding figures are obtained from a bottom-up approach from transit operators and the county transportation commissions.

5.0 STAFF REPORTS

5.1 ADA Paratransit Study

Steve Fox, SCAG staff, noted that as a follow-up to an item discussed at the May 2019 meeting, SCAG has begun an ADA Paratransit Study with the goal to develop an ADA forecasting tool in addition to examining existing conditions and the use of new technology on ADA paratransit services. He noted meetings will be conducted with different transit agencies. He encouraged interest and participation from member agencies.

6.0 ADJOURNMENT

Joyce Rooney, Redondo Beach Transit, adjourned the meeting at 11:58 a.m.

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017

Agenda Item No. 3.2
September 30, 2019

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Steve Fox, Senior Regional Planner, fox@scag.ca.gov

Subject: ADA Paratransit Demand Forecast

SUMMARY:

The Americans with Disabilities Act (ADA) mandates that providers of public transportation provide alternative curb-to-curb service for seniors and the disabled within three-fourths of a mile of their fixed route transit network. In May 2019, SCAG commenced work on the ADA Paratransit Demand Forecast. This report updates RTTAC members on the study's progress to date.

BACKGROUND:

Following the passage of the Americans with Disabilities Act of 1990, The FTA adopted four regulations to implement that statute, as well as the Rehabilitation Act of 1973. In particular, 49 CFR 37 mandated the provision of complementary paratransit for qualified individuals by providers of public transportation. This rule mandates that paratransit service shall be provided according to the following criteria:

- (a) Service Area—(1) Bus. (i) The entity shall provide complementary paratransit service to origins and destinations within corridors with a width of three-fourths of a mile on each side of each fixed route. The corridor shall include an area with a three-fourths of a mile radius at the ends of each fixed route.
- (ii) Within the core service area, the entity also shall provide service to small areas not inside any of the corridors but which are surrounded by corridors.
- (iii) Outside the core service area, the entity may designate corridors with widths from three-fourths of a mile up to one and one half miles on each side of a fixed route, based on local circumstances.
- (iv) For purposes of this paragraph, the core service area is that area in which corridors with a width of three-fourths of a mile on each side of each fixed route merge together such that, with few and small

exceptions, all origins and destinations within the area would be served.

Therefore, public transportation providers are mandated to provide complimentary paratransit service for trips within three-fourths of a mile of their fixed route service. This typically is provided by a dedicated paratransit vehicle picking the passenger up directly at their origin and dropping them off directly at their destination, from curb to curb. The mandate does not specify that the vehicle operator escort the passenger to or from the doorstep.

In addition to satisfying the ADA mandate, ADA Paratransit is also an important component of the Region's integrated mobility system. This service provides mobility for seniors and the disabled, many of whom cannot provide for themselves. However, since it typically operates at a rate of one vehicle operator to one passenger, this service is very resource intensive, resulting in very low productivity and very high costs per passenger hour and mile. For example, in FY2015-16, ADA Paratransit and other demand response services resulted in 18.1% of all public transit revenue vehicle hours, but less than 2% of all unlinked passenger trips in the region. In addition, average paratransit trip lengths have doubled between FY1991-92 and FY 2015-16.

DISCUSSION:

The ADA Paratransit Demand Forecast project includes the development of a forecasting tool to provide estimates of long-term demand for ADA paratransit trips, and also includes the production of an initial trip demand forecast for the years 2030 and 2045. The project includes significant outreach to partner agencies, and representatives of the elderly and disabled communities. Additionally, the study addresses the role of new mobility services in providing service to the elderly and disabled communities. The specific project tasks are:

Task 1 – Project Management

Task 2 – Stakeholder Engagement, including stakeholder interviews and focus groups

Task 3 – Data Collection, including an eligibility rules analysis, an existing conditions analysis and a review of technology and mobility innovations impacting paratransit

Task 4 - ADA Paratransit Demand Forecast Tool Development, including a forecasting tool instruction manual

Task 5 – Next Steps Analysis

Task 6 – ADA Paratransit Demand Costs, including cost estimates and long-term resource needs

Task 7 – Final Report

Study Progress to Date

A project kick-off meeting was held on April 30, 2019. Since that time, a stakeholder engagement plan was finalized, and stakeholder outreach has begun and is in process, including a stakeholder invitation letter and interviews with various transit agencies. Transit agencies interviewed or scheduled to be interviewed include Access Services, Gold Coast Transit District (GCTD), Imperial County Transportation Commission (ICTC), Los Angeles County Metropolitan Transportation Authority (LACMTA), Omnitrans, Orange County Transportation Authority (OCTA), Riverside Transportation Authority (RTA), and SunLine Transit Agency.

The consultant team has also begun a review of ADA paratransit demand forecast methodologies used by other paratransit providers in the industry. These include Massachusetts Bay Transportation Authority (MBTA), Miami-Dade Transit, Washington Metropolitan Area Transit Authority (WMATA) and Virginia Department of Rail & Public Transportation.

NEXT STEPS:

SCAG staff will periodically update RTTAC members during the course of the study. The project is expected to conclude in September 2020.

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017

Agenda Item 3.3
September 30, 2019

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Philip Law, Transit/Rail Manager, 213-236-1841,
law@scag.ca.gov

Subject: *Fast-Tracked: A Tactical Transit Study*

SUMMARY:

A pre-publication draft of Transit Cooperative Research Program (TCRP) Research Report 207 is now available at <http://www.trb.org/main/blurbs/179576.aspx>.

In this forthcoming TCRP report, researchers Anthony Garcia and Dana Wall document the current state of the practice of “tactical transit” projects, which apply a quick-build tactical urbanism approach to implementing short-term projects on a faster timeline and at low cost. The report examines 20 bus and streetcar projects across the country that involve both physical and operations improvements. Two of the pilots are located in the SCAG region: Go Ave 26 in Los Angeles, led by the nonprofit group LA Más, and the Los Angeles Bus Boarding Platforms on First St. and Figueroa St. in Downtown LA, led by the City of Los Angeles Department of Transportation.

The researchers provide a framework that identifies partnership models, broad categories of intended outcomes, and challenges and solutions. Partnership models include city lead with transit agency support, city and transit agency sharing equal responsibilities, and a third entity lead with city and/or transit agency support. Categories of outcomes include speed and reliability improvements, access and safety improvements, and rider experience improvements.

For each pilot project examined, the report summarizes four characteristics: project impetus, internal process and partnerships, procurement and implementation, and triumphs and lessons learned.

Suggestions or “pro tips” are provided for a set of eight challenges:

1. Assembling the team
2. Designing the project
3. Public outreach
4. Establishing metrics
5. Procuring materials
6. Implementation
7. Public support
8. Responding to challenges

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Agenda Item No. 4.1
September 30, 2019

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Steve Fox, Senior Regional Planner, fox@scag.ca.gov

Subject: 2020 Connect SoCal Transit Asset Management Target Setting

SUMMARY:

This report updates RTTAC members on progress towards regional Transit Asset Management (TAM) target setting for 2020 Connect SoCal.

BACKGROUND:

The Federal Transit Administration (FTA) issued the Transit Asset Management Final Rule (49 CFR 625), effective October 1, 2016, to implement the asset management provisions of the Moving Ahead for Progress in the 21st Century Act (MAP-21). This Final Rule mandates the development of a National Transit Asset Management System, defines “state of good repair,” and requires transit providers to develop asset management plans. It further requires states, metropolitan planning organizations (MPOs), and transit providers to develop locally coordinated performance targets, and to report on progress towards meeting the targets to the National Transit Database. Transit operators were required to establish initial TAM targets by January 1, 2017, and SCAG was required to establish initial regional TAM targets within 180 days, or by July 1, 2017.

DISCUSSION:

SCAG staff has briefed the RTTAC regularly on the TAM target setting development process since the final rule was published. The RTTAC was last briefed at the July 2019 RTTAC meeting and progress on the TAM target setting process is detailed below.

County Transportation Commission (CTC) and Transit Agency Engagement. SCAG procured a consultant team led by Cambridge Systematics to assist with the data collection and target setting, using their web-based asset management software application called TransAM. There were four TransAM training workshops held over the summer in Los Angeles, Riverside, San Bernardino and Ventura counties. Also, SCAG has convened a Project Advisory Group (PAG) comprised of CTCs and large transit agencies from all six SCAG counties to provide guidance on the target setting process. At its September 16th meeting, the PAG reviewed the draft TAM target setting methodology, and their input is incorporated into the draft TAM targets presented today (Attachment 1).

Data Collection. The data collection and input process has been very successful with 37 operators providing data into TransAM, and the L.A. County Group Plan has been inputted as well. Per federal regulation, four asset categories are reported on: Equipment (non-revenue vehicles), Facilities, Infrastructure and Rolling Stock (revenue vehicles). Assets and their cost data are based on CTC and operator inputs.

Regional Target Setting Methodology. Individual operator targets are rolled up with weighted averages calculated by county for each asset type. This includes the six SCAG counties plus Metrolink as an additional geography. Then, county and Metrolink averages are rolled up into regional targets. The forecasted targets use three-year averages for a given point in time to even out fluctuations such as those caused by asset acquisitions. For example, the 2045 target is based on the average for years 2043, 2044 and 2045. For the 2019 current year, a single year average is used due to the lack of consistent historical data for 2017 and 2018.

Target Setting Scenarios. Three scenarios are analyzed: Baseline, Constrained and Unconstrained. The Baseline scenario represents the funding required to maintain the current 2019 state of good repair (SOGR) performance targets through the Connect SoCal 2045 horizon. The Constrained scenario represents targets that could be achieved with the SOGR funding available from Connect SoCal's financial forecast, which is based on CTC input. The Unconstrained scenario represents the funding required for a full SOGR in 2045, meaning for example there would be 0% of vehicles at or past their useful life.

The draft TAM targets are in accordance with the Baseline scenario—reflecting a desire to maintain current conditions through the life of the plan. These are optimistic targets, in that there is not sufficient funding available in the financial forecast to cover the Baseline scenario. However, the data from the target setting analysis can be used to support regional efforts to advocate for additional revenue to meet our SOGR needs.

NEXT STEPS:

The draft TAM targets will be presented to SCAG's Transportation Committee on October 3, 2019. The Draft 2020 Connect SoCal document will be released in early November 2019, and the next PAG meeting is scheduled for December 9, 2019. SCAG will continue coordination efforts with the CTCs and transit operators leading up to final Connect SoCal adoption in April 2020.

ATTACHMENTS:

1. PowerPoint Presentation



Transit Asset Management Target Setting

Draft Regional Targets

presented to

Regional Transit Technical Advisory Committee (RTTAC)

presented by

Cambridge Systematics, Inc.



Think  Forward

Project Background

From these Inputs

Operators:

- Asset Inventories
- Planned Investments
- Performance Targets

SCAG:

- 25-Year Funding Scenarios

Applied with these Decision Steps

- Performance Targets
- Asset Investments
- Scenario Analysis

We get to these Outputs

For Each Scenario:

- 25-Year County & Region Performance Targets
- 25-Year County & Region Forecast Investments
- Feeds into RTP



Data Collection

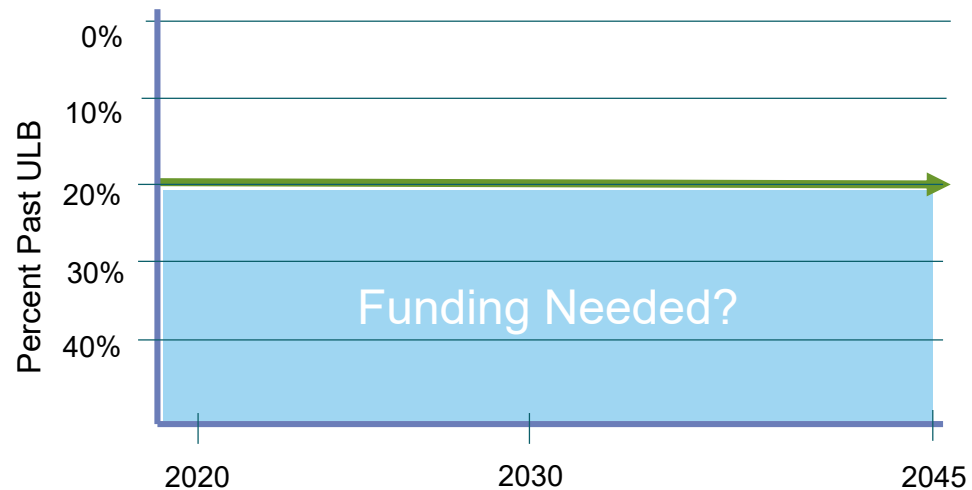
- Five database training workshops help in June and July
- Operators uploaded data into database
 - » 37 individual operators provided data
 - » Data from 34 agencies entered through combined upload (LA County Group Plan)

Target Setting Approach

- Current Targets: Operator Targets Rolled Up:
 - » Weighted averages calculated, by county, for each asset type
 - » Averages rolled up to class and category
 - » County averages rolled up to SCAG regional targets

1) Baseline Scenario:

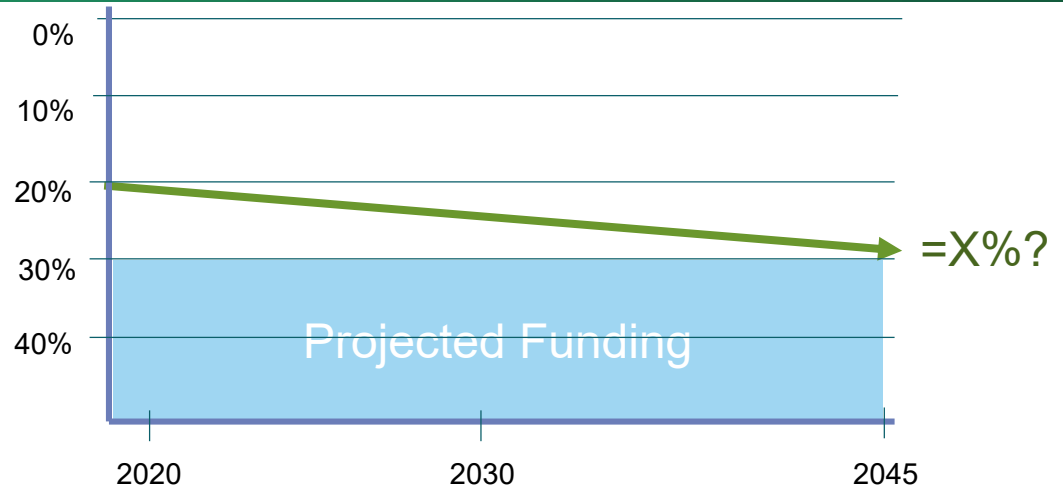
To maintain current target, how much funding is required?



Target Setting Approach

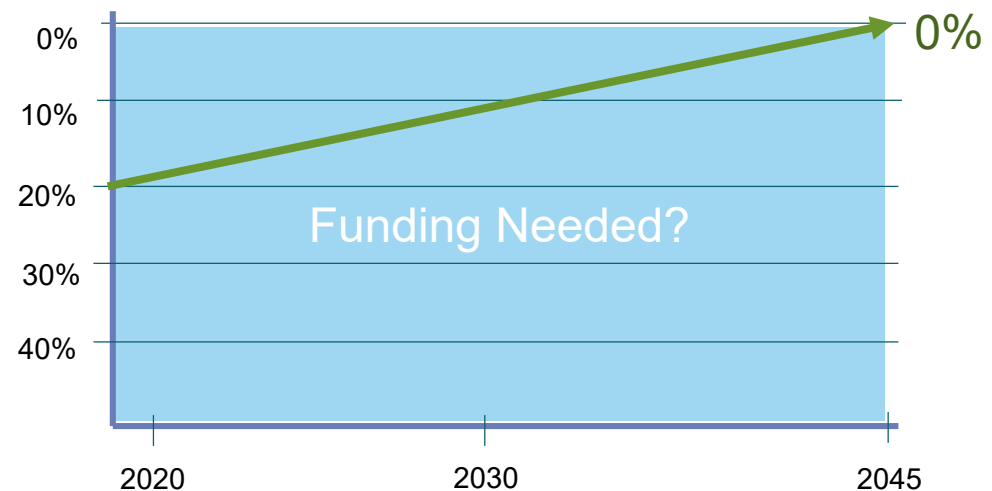
2) Constrained Scenario:

Based on the available funding, what target are we likely to achieve?



3) Unconstrained Scenario:

What is the total funding needed to replace all assets past their useful life?



Analysis Methodology

➤ Scenarios analyzed

- » Three scenarios: Unconstrained, Baseline, and Constrained
- » Four asset categories: Rolling stock, Equipment (service vehicles), Facilities, and Infrastructure
- » Seven geographies: Six counties plus Metrolink

➤ Input Data

- » Asset inventory and cost data from operator inputs
- » ULBs and performance targets from TAM plans and NTD reports

➤ Funding Assumptions

- » Unconstrained = funding need to clear current and future backlog
- » Constrained = funding assumed to match SCAG's RTP financial forecast (based on CTC input). Funding split between categories based on unconstrained need
- » Baseline = funding based on what is required to maintain 2019 performance targets

➤ Forecasted Targets

- » Three-year averages

2019 Targets

Geography	2019 Targets			
	Rolling Stock <i>(Pct of revenue vehicles > ULB)</i>	Equipment <i>(Pct of non-revenue vehicles > ULB)</i>	Facilities <i>(Pct of facilities < TERM scale 3)</i>	Infrastructure <i>(Pct of track segments with restrictions)</i>
Imperial	0.0%	n/a	n/a	n/a
Los Angeles	16.0%	27.7%	6.4%	1.5%
Orange	11.7%	18.6%	0.0%	n/a
Riverside	3.8%	17.9%	22.1%	n/a
San Bernardino	22.2%	27.7%	26.3%	n/a
Ventura	6.3%	25.0%	0.0%	n/a
Metrolink	10.0%	22.7%	33.3%	15.0%
SCAG Region	14.8%	26.1%	10.3%	11.5%

Unconstrained Scenario

Geography	Scenario Funding (\$M)	2019 Targets			
		Rolling Stock <i>(Pct of revenue vehicles > ULB)</i>	Equipment <i>(Pct of non-revenue vehicles > ULB)</i>	Facilities <i>(Pct of facilities < TERM scale 3)</i>	Infrastructure <i>(Pct of track segments with restrictions)</i>
Imperial	\$ 45	0%			
Los Angeles	\$ 21,404				
Orange	\$ 1,146				
Riverside	\$ 580				
San Bernardino	\$ 600				
Ventura	\$ 263				
Metrolink	\$ 4,358				
SCAG Region	\$ 28,397				

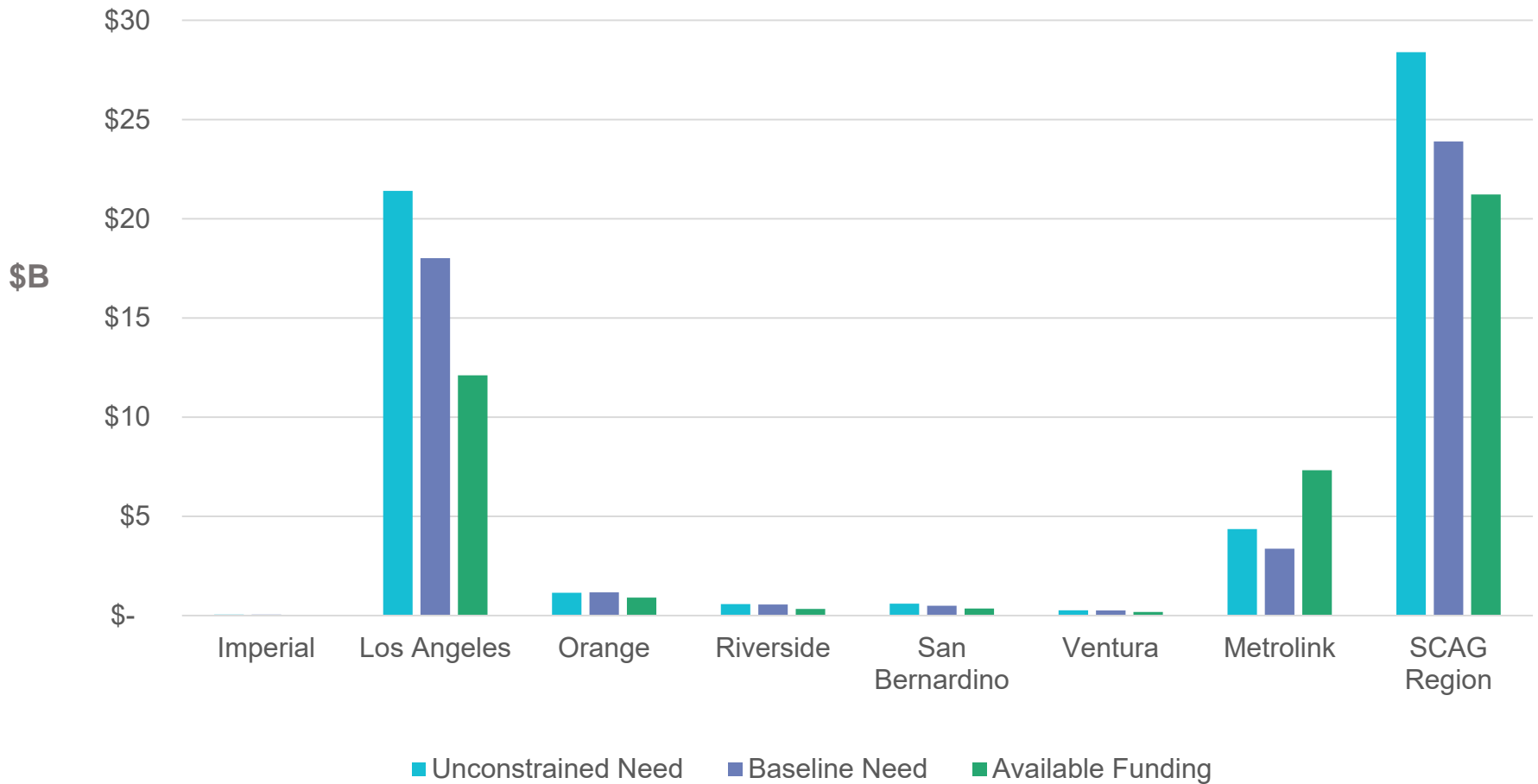
Baseline Scenario

Geography	Scenario Funding (\$M)	2019 Targets			
		Rolling Stock <i>(Pct of revenue vehicles > ULB)</i>	Equipment <i>(Pct of non-revenue vehicles > ULB)</i>	Facilities <i>(Pct of facilities < TERM scale 3)</i>	Infrastructure <i>(Pct of track segments with restrictions)</i>
Imperial	\$ 45	0.0%	n/a	n/a	n/a
Los Angeles	\$ 17,943	16.0%	27.7%	6.4%	1.5%
Orange	\$ 1,114	11.7%	18.6%	0.0%	n/a
Riverside	\$ 546	3.8%	17.9%	22.1%	n/a
San Bernardino	\$ 485	22.2%	27.7%	26.3%	n/a
Ventura	\$ 248	6.3%	25.0%	0.0%	n/a
Metrolink	\$ 3,372	10.0%	22.7%	33.3%	15.0%
SCAG Region	\$ 23,753	14.8%	26.1%	11.0%	11.5%

Constrained Scenario

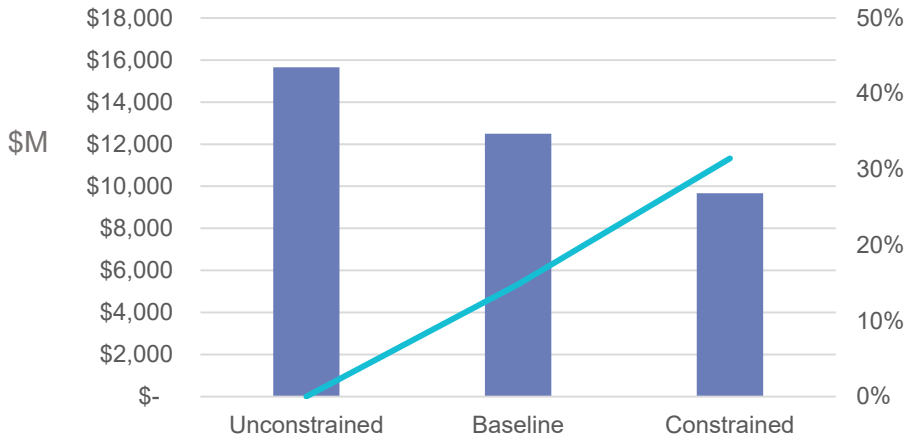
Geography	Scenario Funding (\$M)	2019 Targets			
		Rolling Stock <i>(Pct of revenue vehicles > ULB)</i>	Equipment <i>(Pct of non-revenue vehicles > ULB)</i>	Facilities <i>(Pct of facilities < TERM scale 3)</i>	Infrastructure <i>(Pct of track segments with restrictions)</i>
Imperial	\$ 11	71%	NA	NA	NA
Los Angeles	\$ 12,110	31%	22%	34%	3%
Orange	\$ 905	20%	14%	2%	NA
Riverside	\$ 336	47%	60%	24%	NA
San Bernardino	\$ 357	54%	44%	16%	NA
Ventura	\$ 177	28%	6%	0%	NA
Metrolink	\$ 7,326	0%	0%	0%	0%
SCAG Region	\$ 21,222	31%	25%	25%	1%

Scenario Funding Needs

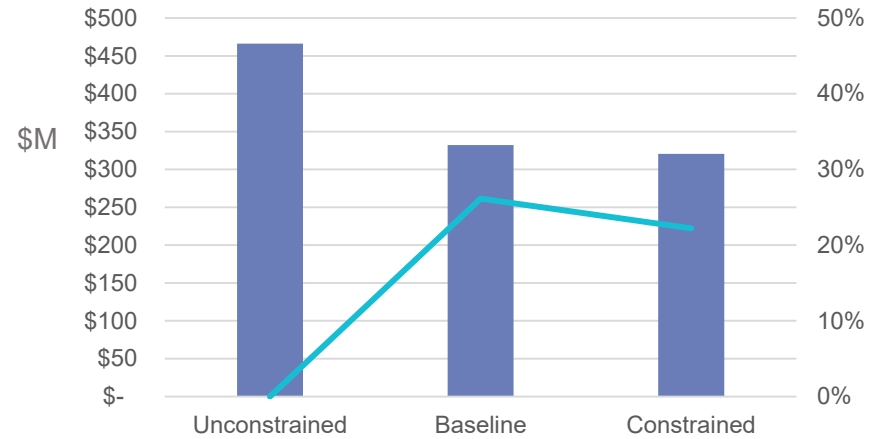


SCAG Region – Funding vs Targets

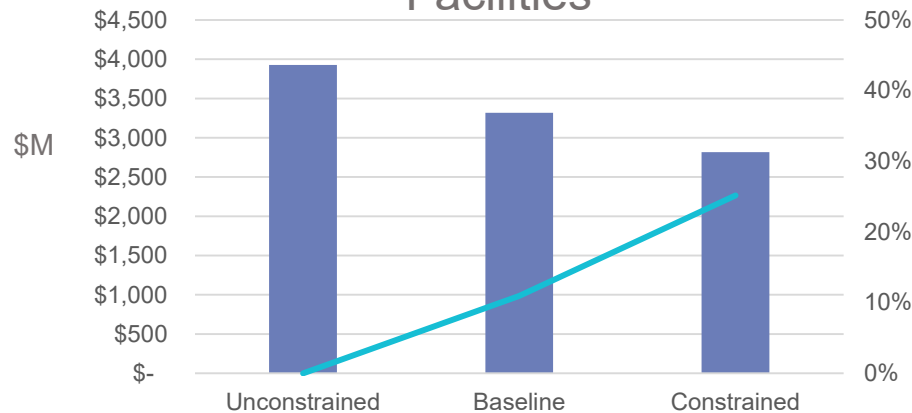
Rolling Stock



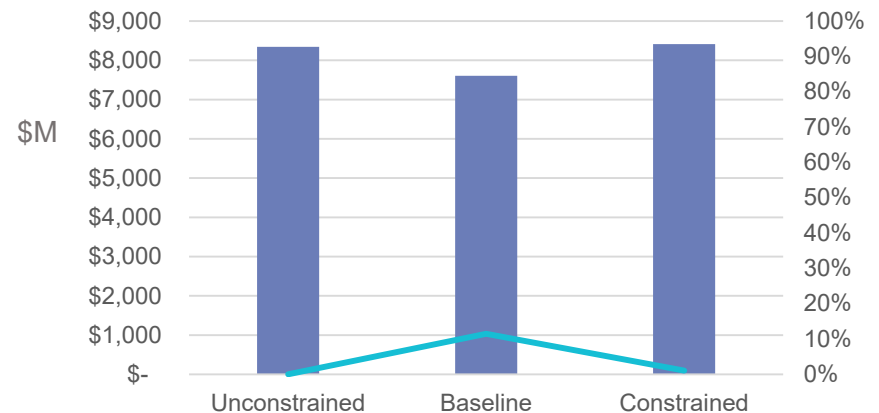
Equipment



Facilities

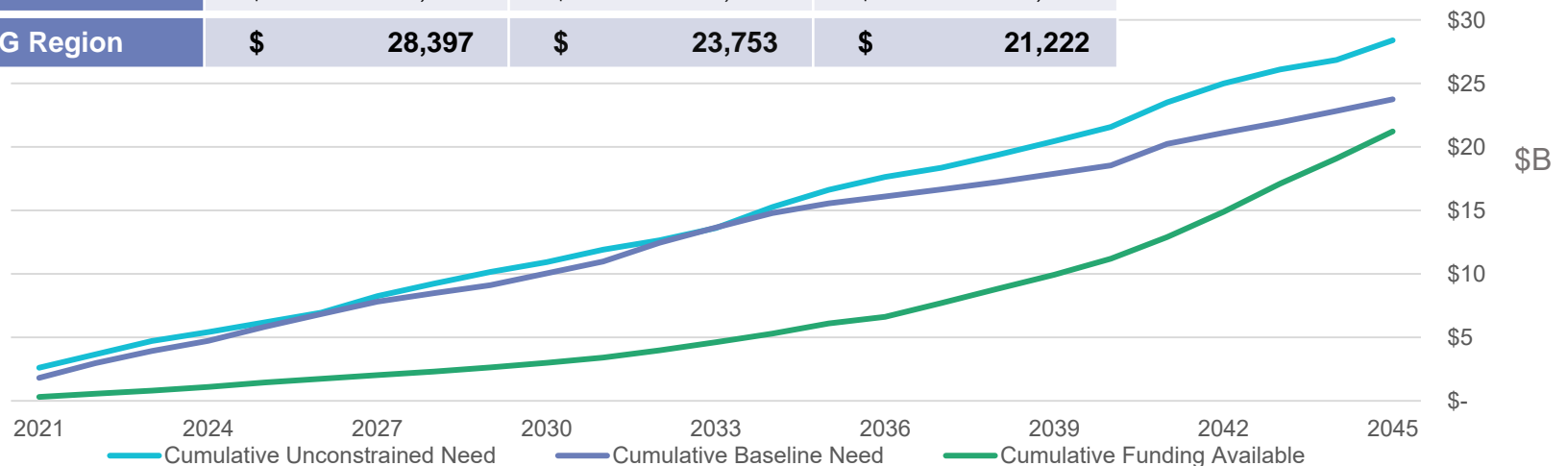


Infrastructure



Funding Summary

Geography	Unconstrained Need (\$M)	Baseline Funding Need (\$M)	Constrained Funding (\$M)
Imperial	\$ 45	\$ 45	\$ 11
LA County	\$ 21,404	\$ 17,943	\$ 12,110
Orange	\$ 1,146	\$ 1,114	\$ 905
Riverside	\$ 580	\$ 546	\$ 336
San Bernardino	\$ 600	\$ 485	\$ 357
Ventura	\$ 263	\$ 248	\$ 177
County Subtotal	\$ 24,039	\$ 20,381	\$ 13,896
Metrolink	\$ 4,358	\$ 3,372	\$ 7,326
SCAG Region	\$ 28,397	\$ 23,753	\$ 21,222



Project Advisory Group Feedback

- Reviewed draft targets on 9/16 with PAG
 - » Six CTCs plus Metrolink, Access Services, Omintrans, RTA, and Gardena
- Use 2019 Targets for Near and Long-Term
 - » Maintaining current targets made most sense for 2045 long-term targets
- Share scenarios as part of RTP
 - » Telling story of unmet need (baseline versus constrained) is important in the RTP
- PAG data request
 - » Advisory group asked to see more detail behind the analysis

Next Steps

- Sept 30th
 - » RTTAC Presentation
- October 3rd
 - » Transportation Committee Presentation
- November
 - » Draft RTP release

Questions?

- ➔ Stephen G. Fox, SCAG Project Manager
fox@scag.ca.gov / 213-236-1855
- ➔ Philip Law, SCAG Transit Manager
law@scag.ca.gov / 213-236-1841
- ➔ Herb Higginbotham, CS Project Manager
hhigginbotham@camsys.com / 213-372-3029
- ➔ Jon Overman, CS Deputy Project Manager
joverman@camsys.com / 213-372-3028

Bringing you the **NEXT GENERATION** of transit.



PLAN. BUILD. MOVE.

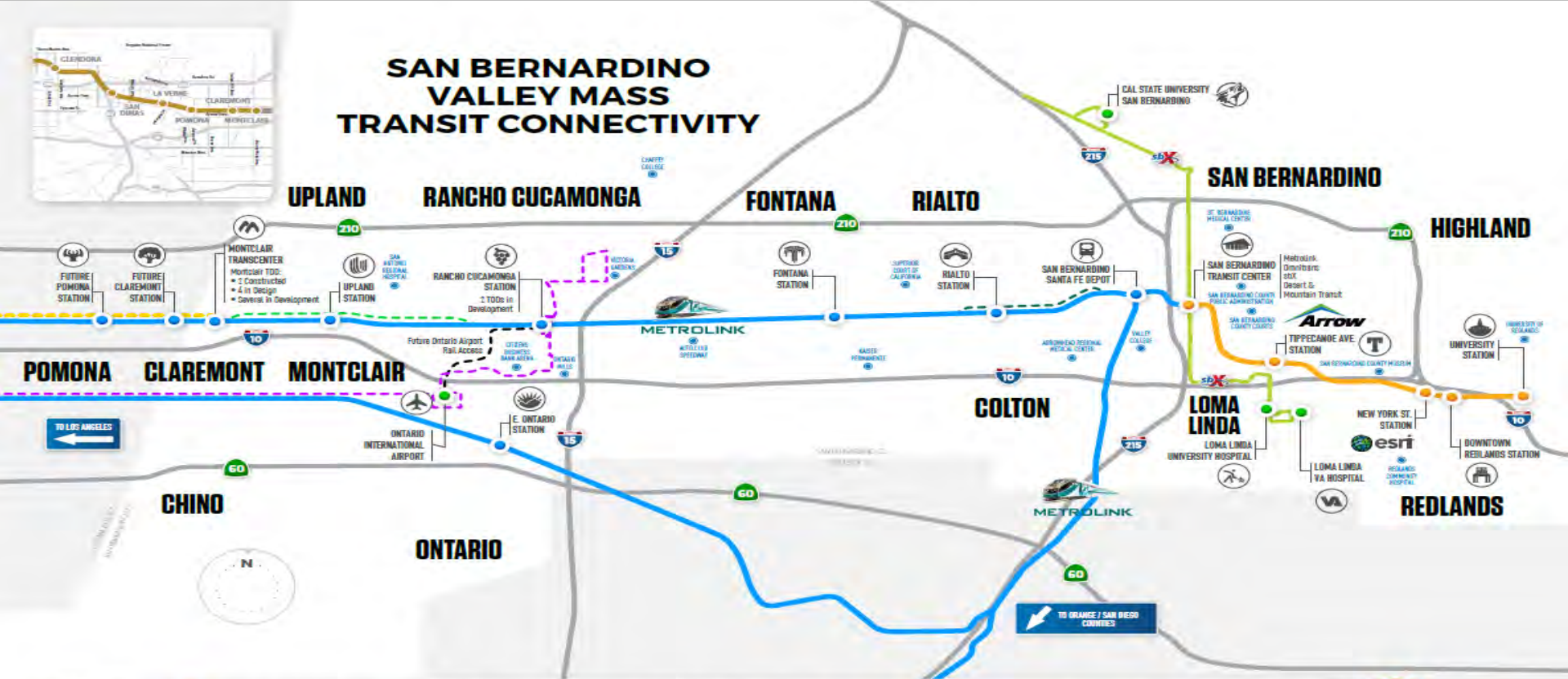


cta

San Bernardino County
Transportation Authority

Carrie Schindler, PE
Director of Transit & Rail

SAN BERNARDINO VALLEY MASS TRANSIT CONNECTIVITY



LEGEND

- Redlands Passenger Rail (Future Arrow Service)
- Metrolink
- sbX Bus Rapid Transit
- TOD** Transit Oriented Development
- Ontario Airport Rail Access (Future)
- Gold Line (Future)
- Omnitrans West Valley Connector - Phase I
- Central to Archibald Double Track (Future)
- Rancho to Lilac Double Track (Future)



Rail and Bus Connectivity



SAN BERNARDINO



HIGHLAND



SAN BERNARDINO
SANTA FE DEPOT

ST. BERNARDINE
MEDICAL CENTER

SAN BERNARDINO
TRANSIT CENTER

Metrolink
OmniTrans
sbX
Desert &
Mountain Transit

SAN BERNARDINO COUNTY
PUBLIC ADMINISTRATION

SAN BERNARDINO
COUNTY COURTS



TIPPECANOE AVE.
STATION



SAN BERNARDINO COUNTY MUSEUM



UNIVERSITY
STATION

UNIVERSITY OF
REDLANDS

ARROWHEAD REGIONAL
MEDICAL CENTER

VALLEY
COLLEGE



LOMA LINDA

LOMA LINDA
UNIVERSITY HOSPITAL



LOMA LINDA
VA HOSPITAL

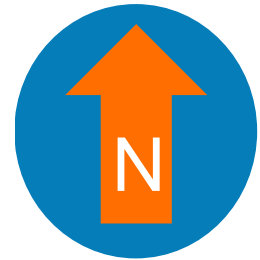


ESRI
STATION

REDLANDS
COMMUNITY
HOSPITAL



DOWNTOWN
REDLANDS STATION



METROLINK



REDLANDS

Redlands Passenger Rail Project

University Station



Redlands Passenger Rail Project

Downtown Redlands Station



Redlands Passenger Rail Project

Esri Station



Redlands Passenger Rail Project



Quiet Zones

Positive Train
Control

System
Interoperability



Project Elements

Diesel Multiple Unit Conversion



TIRCP Grant Award \$30M

- SBCTA received funding from Transit and Intercity Rail Capital Program (TIRCP) to complete research and development on zero or low emissions rail vehicles (ZEMU)

Funding for:

- Research on the conversion of Diesel Multiple Unit to Zero Emission Multiple Unit
- Development of suitable technology and procurement of the zero emission unit and testing on the Arrow corridor

SBCTA ZEMU Program Approach

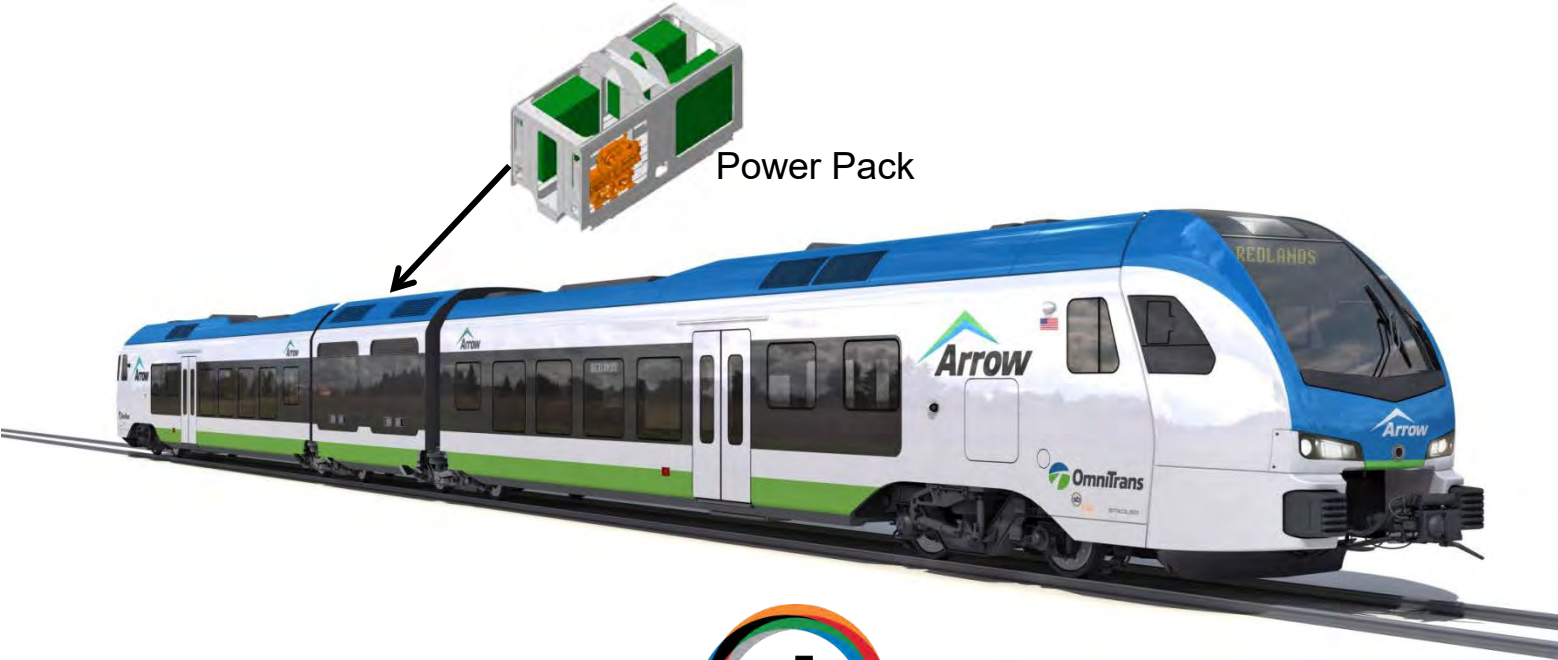
Phase 1 –
Planning

Phase 2 –
Design & Engineering

Phase 3 –
Project Implementation and
Construction



Diesel Multiple Unit Conversion



Power Pack

Selection of Preferred Technology



Cost



Capital, Operations & Maintenance

Infrastructure



Right-of-Way, Charging & Fueling, Utilities

Environmental Considerations



Land use, GHGs, Aesthetics, Noise, Socio-Economic

Operations



Range, Scalability, Reliability, Operations, Life Span

Regulatory Compliance



FRA , NFPA, CPUC

Implementation Schedule



Timeline for Planning, Design, Construction phases

Risk Analysis



Identify and document risks for further analysis



Evaluation Criteria

Plan. Build. Move.

www.goSBCTA.com
909.884.8276



@goSBCTA



Determining Housing Need for Cities: *The Regional Housing Needs Assessment (RHNA)*

Ping Chang

Manager, Compliance & Performance Monitoring
Southern California Association of Governments

September 30, 2019



SCAGTM

INNOVATING FOR A BETTER TOMORROW

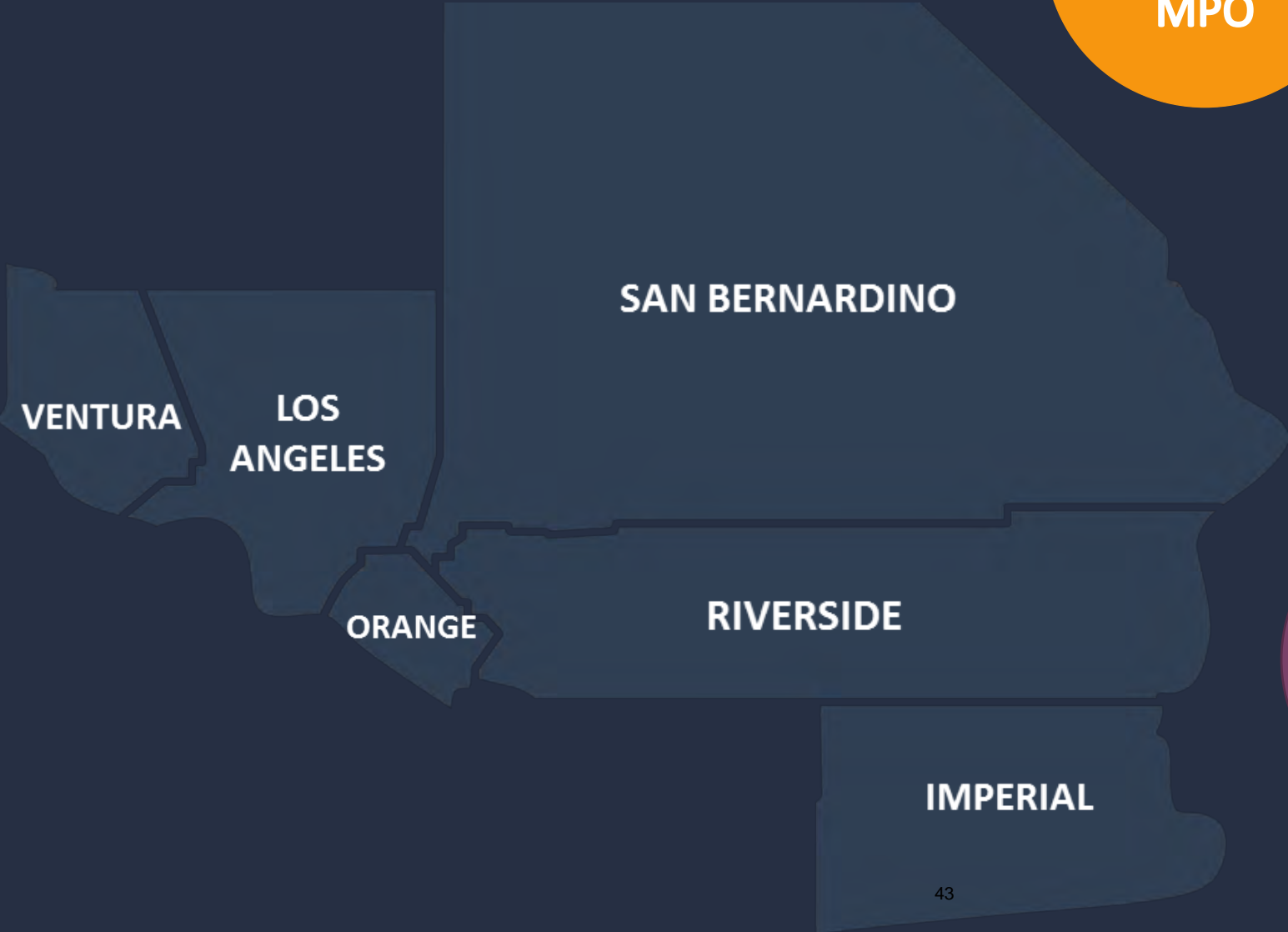
The SCAG Region

Nation's
Largest
MPO

191
Cities
6
Counties

18.9
Million
People

16th
Largest
Economy
in the
World



Different Causes of the Housing Crisis

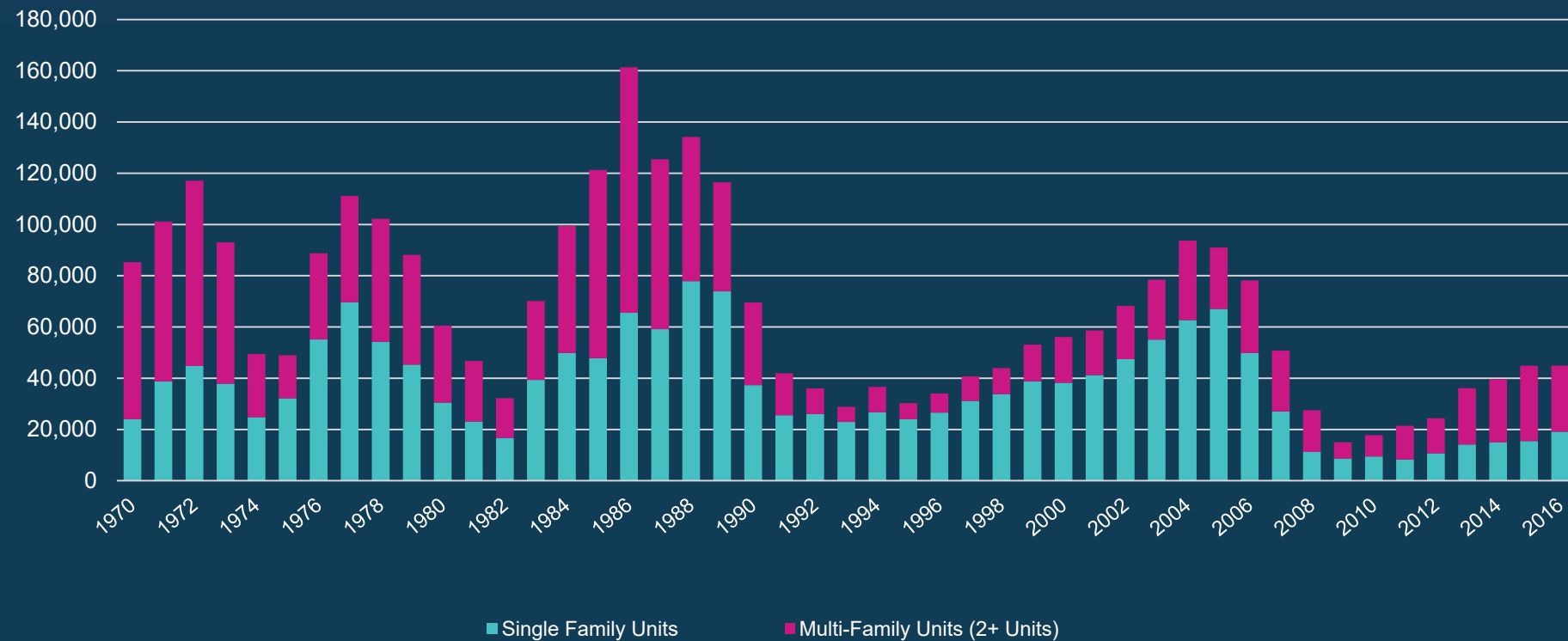
- Unpredictable discretionary permitting process
 - California Environmental Quality Act (CEQA)
- Lack of funding for developers, builders, and cities
- Construction costs
- High cost of land

....the problem is still the same, we're not building enough housing

The Housing Crisis is Caused by a Lack of Housing Supply



Building Permits, SCAG Region 1970-2016



Purpose of RHNA

A DROP IN HOME BUILDING



1970-1980



1 NEW UNIT
PER



1.74 PERSONS ADDED

1990-2000



1 NEW UNIT
PER

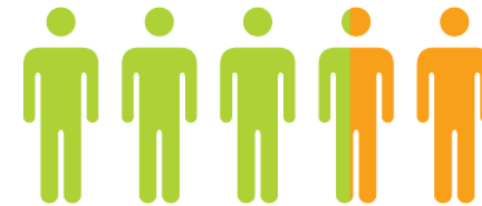


4.52 PERSONS ADDED

2010-2018



1 NEW UNIT
PER



3.32 PERSONS ADDED

The Cost of Not Housing



Overcrowding



Outmigration and Loss of Talent



Health and Safety Issues



Economic Impacts

Regional Housing Needs Assessment

- State housing law requirement to determine regional housing needs
- 8 year planning period
- 5th cycle: 2013-2021
- 6th cycle: 2021-2029
- Final allocation adoption October 2020



Objectives of RHNA

- 1) To increase the housing supply and mix of housing types, tenure and affordability within each region in an equitable manner
- 2) Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns

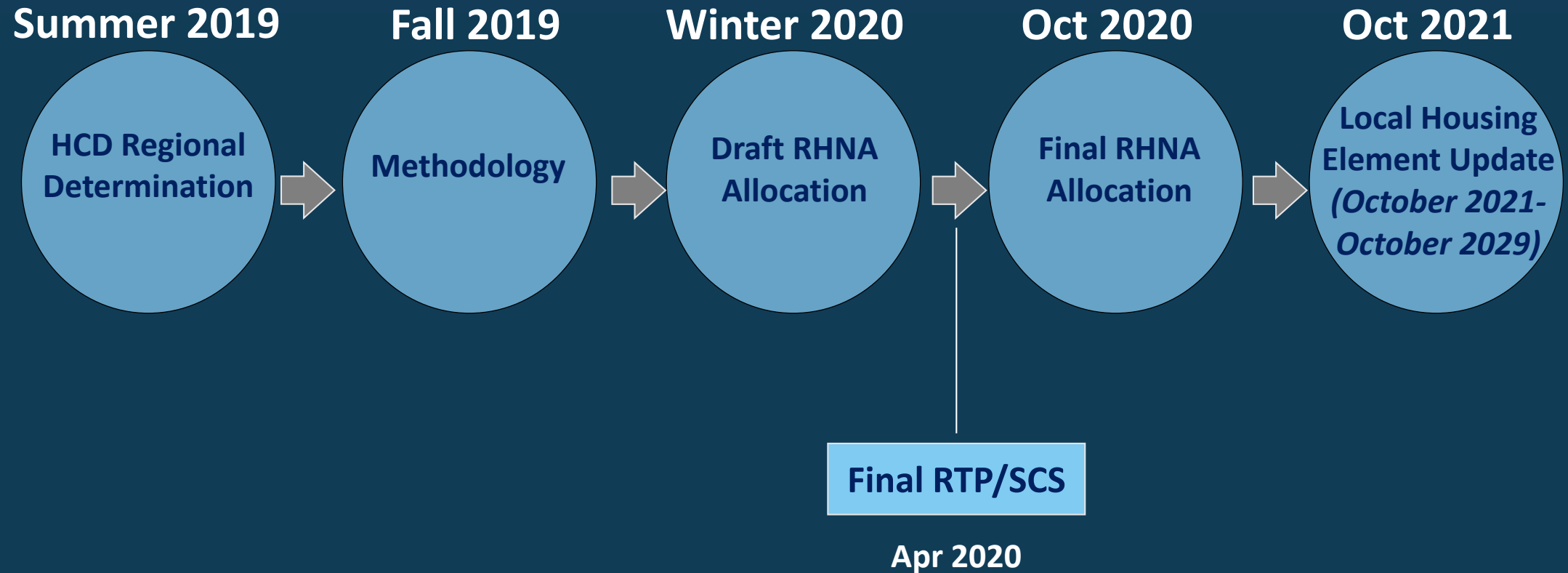


Objectives of RHNA

- 3) Promoting an improved intraregional relationship between jobs and housing
- 4) Allocating a lower proportion of housing need in income categories in jurisdictions that have a disproportionately high share in comparison to the county distribution
- 5) Affirmatively furthering fair housing



The RHNA Process



Regional Determination Process



- HCD provides a regional determination in consultation with SCAG and the Department of Finance (DOF)
- 4th Cycle regional determination (2006-2014)
 - 699,368
- 5th Cycle regional determination (2013-2021)
 - 412,137
- 6th Cycle regional determination (2021-2029)
 - 1,344,740 (pending HCD Final Written Determination in response to SCAG's objection)

How should we distribute regional housing need?



- Local input on household growth?
- High quality transit areas?
- Job accessibility?
- Household income distribution?
- Social equity considerations?

Public Review

- Full proposed methodology available online:
www.scag.ca.gov/rhna
- Four public hearings in August and extensive outreach throughout the SCAG region
- Over 300 written comments on the methodology were received by the September 13 comment deadline

Draft RHNA Methodology: Review Process



After reviewing all comments, SCAG staff will recommend one option as the draft RHNA methodology

Public Workshop of Draft Methodology	September 23
RHNA Subcommittee	October 7
CEHD Policy Committee	October 21
Regional Council	November 7

HCD Review

- HCD reviews and provides comments on draft RHNA methodology, 60 days

- After the distribution of the draft RHNA allocation, jurisdictions may file an appeal within 45 days
 - HCD and other jurisdictions may file an appeal to any jurisdiction's draft RHNA allocation
- Appeals cannot be based on
 - Voter-approved measures that restrict residential permits issued
 - Underproduction of units based on the prior RHNA allocation
 - Stable population numbers based on the last RHNA cycle
- Additional 45 day comment period for jurisdictions and HCD to review submitted appeals before public hearing

Final RHNA Adoption



- Successful appeals are reallocated back to the region
- Must be consistent with the Connect SoCal (Sustainable Communities Strategy) development pattern
- Final RHNA Allocation adoption October 2020

Thank you!

To learn more about what we do,
please visit:

www.scag.ca.gov





Connect SoCal – Transit and Rail

Philip Law

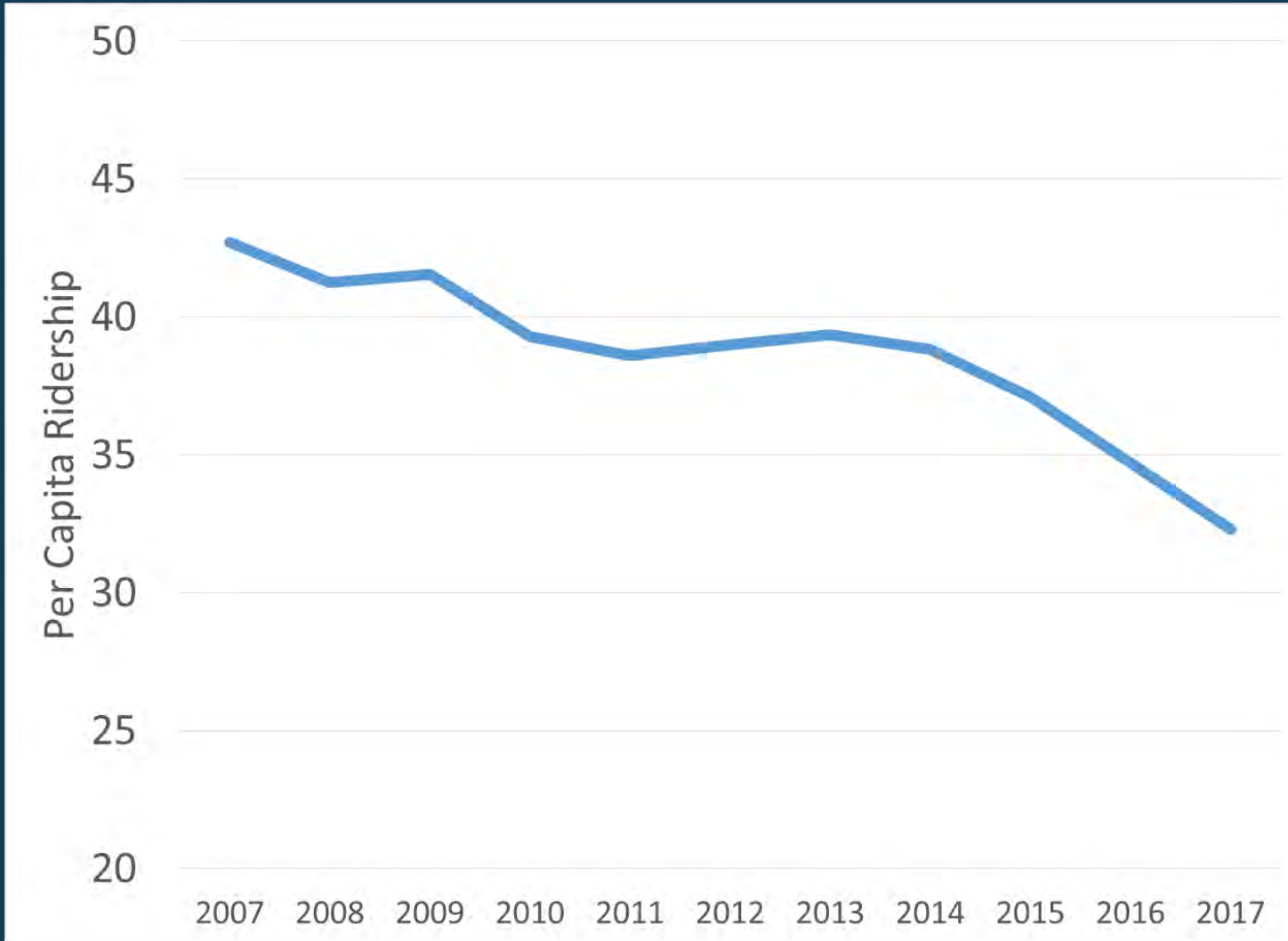
Transit/Rail Manager

September 30, 2019

www.scag.ca.gov



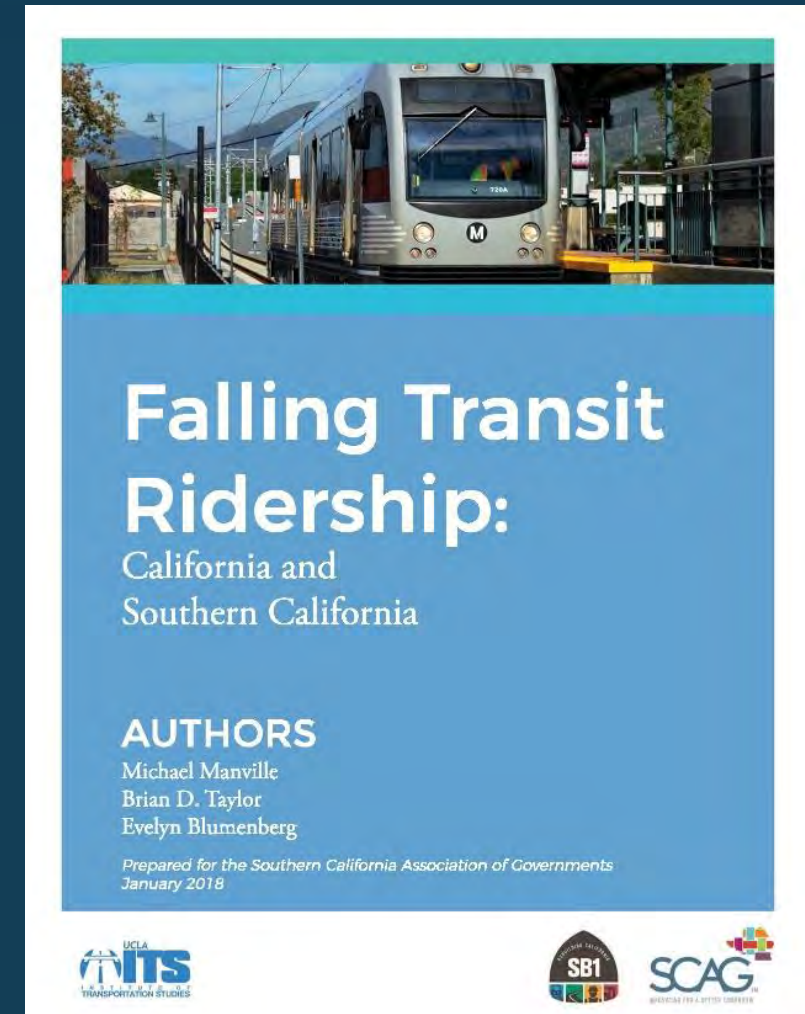
SCAG Region Per Capita Ridership Down Since 2007



- Preliminary data for 2018 suggests the decline is continuing
- Rate of decline for bus ridership may be slowing
- Metro data show decline in total Metro Rail ridership in 2018
 - Ridership “bump” from Expo Line and Foothill Gold Line extensions has disappeared

SCAG & UCLA Identify Rising Vehicle Ownership as Cause

- 2000 to 2015 – SCAG region added 2.3 million people & 2.1 million cars, or 0.95 vehicles/new resident (4X the rate of the 1990s)
- Vehicle ownership increased disproportionately among groups most likely to take transit
- The regional pool of transit users is changing
 - Fewer heavy-use “transit dependents” over time
 - More “discretionary riders” with access to cars
- No easy answers
 - Broaden the base of occasional riders
 - Manage automobile use



Impact of Transportation Network Companies (TNCs)

- San Francisco County Transportation Authority found that TNCs accounted for roughly 50% of the increase in traffic congestion between 2010 and 2016
- Various studies report that between 43% and 61% of TNC trips substitute for transit, walk or bike travel, or would not have been made at all
- University of Kentucky found Uber and Lyft decrease rail ridership by 1.3% per year and bus ridership by 1.7% per year



Strategies: Adjust to Market Demand and Changing Needs

- Support transit operator efforts to re-design the regional bus system to better support travelers' needs
 - Metro NextGen Bus Study
 - OC Bus 360 and OCTA Transit Master Plan
 - Long Beach Transit – Systemwide Transit Analysis & Reassessment
- Address critical gaps in networks and services
 - Airport Metro Connector
 - Riverside Transit Agency First and Last Mile Mobility Plan



Strategies: Leverage Technology

- Ensure technology innovations support regional goals by partnering with private providers to complement and support fixed route transit service
 - Improve first/last mile connections
 - Provide shared on-demand service where/when fixed route transit isn't cost-effective
 - Share best practices and promote regional coordination and consistency



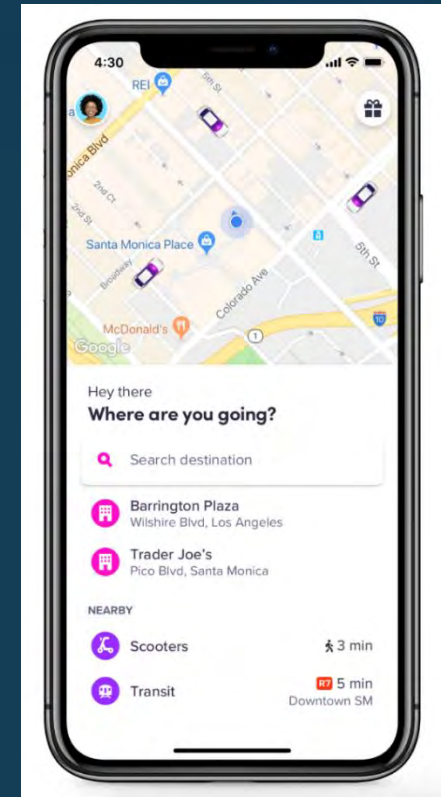
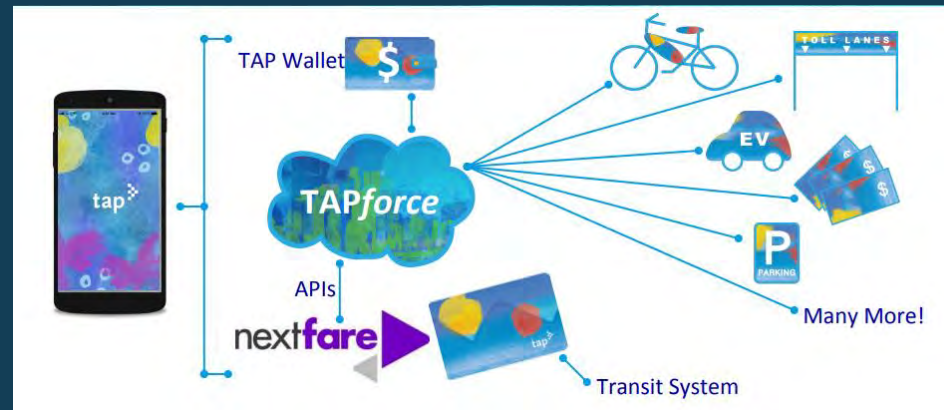
Source: Via



**SUPPORTING
YOUNG-AT-HEART SENIORS
BY MAKING YOUR TRAVEL
EASIER, FASTER, AND MORE CONVENIENT!**

Strategies: Mobility as a Service

- Develop integrated multi-modal trip planning and payment systems, laying groundwork for “mobility as a service” with transit as backbone
 - Metro TAP system upgrade
 - California Integrated Travel Project



Strategies: Beyond Transit

- Be bold with policy levers including parking management and congestion pricing
- Support local jurisdictions in planning for curb space management, dedicated transit lanes
- Plan for growth near transit investments including high quality transit areas
- Support investments in clean transportation fueling infrastructure and accelerate deployment of zero emission vehicles

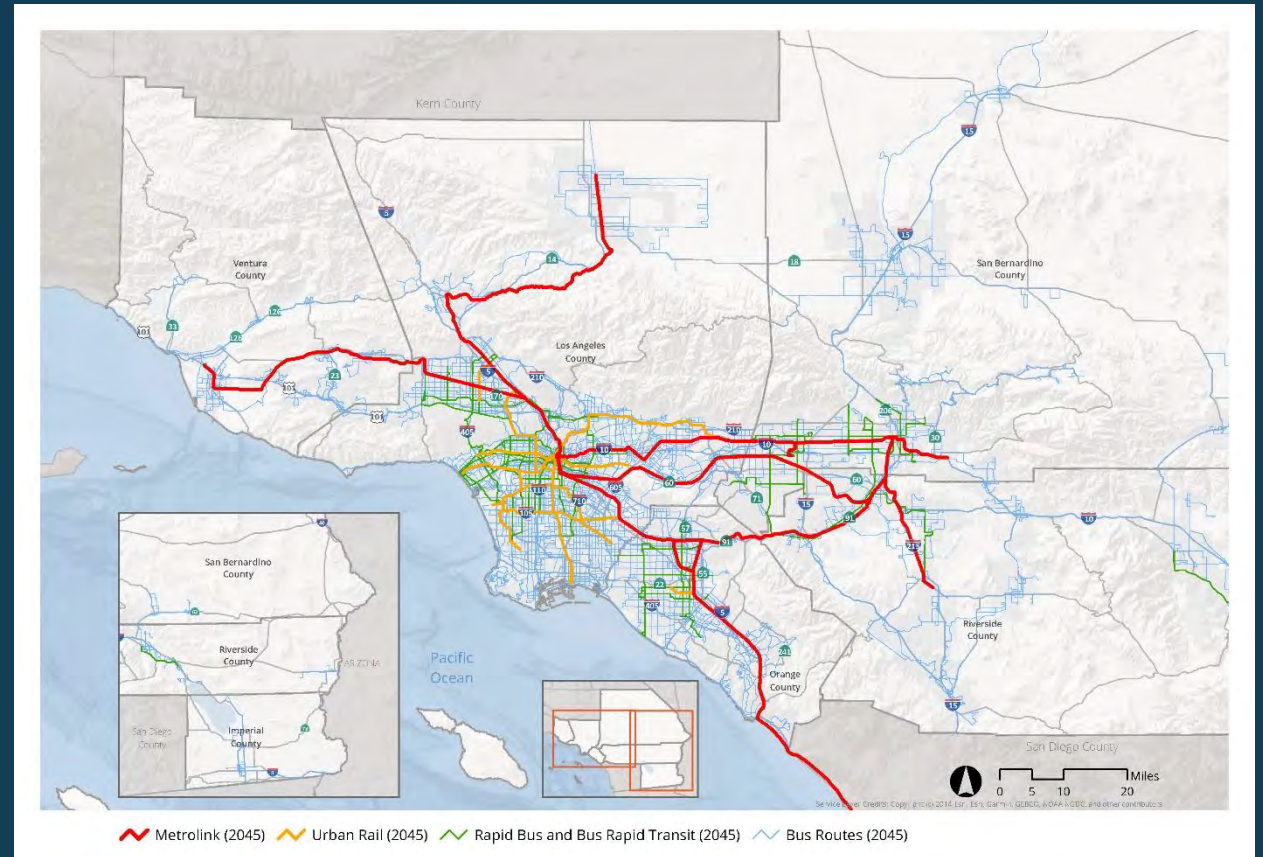


Photo by Terry Pierson, The Press-Enterprise/SCNG



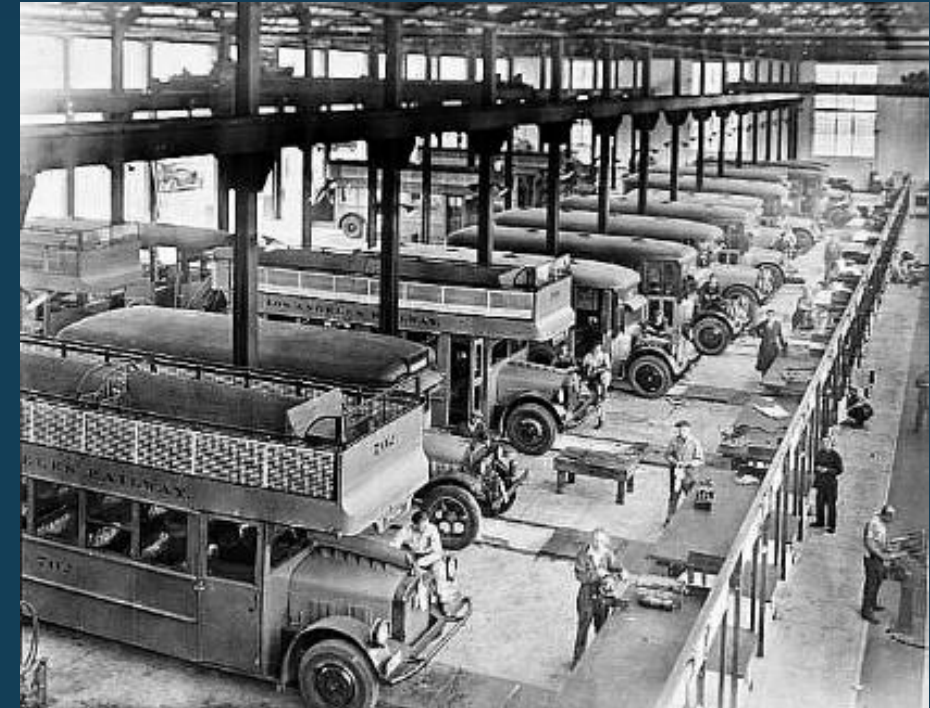
Transit Capital Projects

- Bus Rapid Transit and High Quality Transit Corridors
- Urban Rail Expansion and Fixed Guideway Gap Closures
 - Metro Rail Expansion (extensions and new lines)
 - OC Streetcar
 - Arrow / Redlands Rail
- Metrolink – Southern California Optimized Rail Expansion (SCORE)



Transit Asset Management (TAM)

- In 2012, Congress established performance-based planning requirements, including for TAM
- In 2016, the TAM Final Rule became effective, requiring transit operators to develop TAM plans, establish annual targets, and report on performance
- In July 2017, the Regional Council established initial regional targets and directed staff to work with transit operators to:
 - Obtain the operator TAM plans (due Oct. 2018) and associated data
 - Update the target methodology
 - Develop regional targets for the 2020 RTP update



Los Angeles Railway (LARy), 16th Street Bus Repair Area (interior), 1928
 Photo from Metro Library and Archive
<https://creativecommons.org/licenses/by-nc-sa/2.0/legalcode>

Draft TAM Targets for Connect SoCal



		Rolling Stock (% of revenue vehicles \geq ULB)	Equipment (% of non-revenue vehicles \geq ULB)	Facilities (% of facilities $<$ TERM scale 3)	Infrastructure (% of track segments with restrictions)
County	Imperial	0.0%	NA	NA	NA
	Los Angeles	14.4%	27.3%	5.8%	1.5%
	Orange	8.2%	18.6%	0.0%	NA
	Riverside	0.2%	11.4%	22.1%	NA
	San Bernardino	21.0%	24.1%	26.6%	NA
	Ventura	5.7%	21.1%	0.0%	NA
Metrolink		10.0%	22.7%	33.3%	15.0%
SCAG Region		12.7%	25.2%	12.2%	9.4%

Notes: ULB = Useful Life Benchmark; TERM = Transit Economic Requirements Model; NA = Not Applicable

TAM Target Setting – Next Steps

- Continue coordination with transit operators to refine targets
- Return to TC with final TAM targets prior to April 2020 Connect SoCal adoption
- Continue to improve methodology, data collection and analysis for future RTP updates
- Report on progress towards meeting targets in future RTPs and Federal Transportation Improvement Programs (FTIPs)
- Use the data generated in this analysis to call for increased funding for TAM



Division 12 Pacific Electric at Fairbanks Yard
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Thank You

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