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Agenda - Final

Thursday, September 17, 2020

11:30 AM

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Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

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CALL TO ORDER**ROLL CALL****APPROVE Consent Calendar Item: 7.**

Consent Calendar items are approved by one motion unless held by a Director for discussion and/or separate action.

CONSENT CALENDAR**7. SUBJECT: EXPRESSLANES FINANCIAL ADVISORY SERVICES [2020-0552](#)****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer (CEO) to:
EXECUTE Modification No. 1 to Task Order No. 17 to Contract No. PS 130521031 to exercise two (2), one-year options with Sperry Capital Inc. to serve as financial advisor on the Metro ExpressLanes, in the not-to-exceed amount of \$337,725 for Option Year 1, and in the not-to-exceed amount of \$270,180 for Option Year 2, increasing the not to-exceed Task Order value from \$1,243,065 to \$1,850,970 and extending the contract term from October 17, 2020, to October 17, 2022.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - Contract Modification/Change Order Log](#)
 [Attachment C - DEOD Summary](#)

NON-CONSENT**15. SUBJECT: 2020 LONG RANGE TRANSPORTATION PLAN REQUEST FOR ADOPTION [2020-0465](#)****RECOMMENDATION**

CONSIDER:

APPROVING the following:

- A. ADOPT the 2020 Long Range Transportation Plan; and
- B. APPROVE the development of a Short Range Transportation Plan, to include a strategic project list.

Attachments: [Attachment A - 2020 Long Range Transportation Plan](#)
 [Attachment B - 2020 LRTP Technical Document](#)
 [Attachment C - LRTP Public Comment Response Matrix](#)
 [Attachment D - Summary of LRTP Revisions](#)

(ALSO ON PLANNING AND PROGRAMMING COMMITTEE)

29. **SUBJECT: STATE AND FEDERAL REPORT** [2020-0570](#)

RECOMMENDATION

RECEIVE AND FILE September 2020 State and Federal Legislative Report.

30. **SUBJECT: UPDATE ON TAP MOBILE APP** [2020-0619](#)

RECOMMENDATION

RECEIVE oral report on Tap Mobile App.

Attachments: [Presentation](#)

31. **SUBJECT: FARE CAPPING** [2020-0565](#)

RECOMMENDATION

RECEIVE AND FILE this report on the evaluation of fare capping for Metro, update on the review of EZ transit pass pricing, and potential changes to the current fare structure.

Attachments: [Presentation](#)

32. **SUBJECT: LOS ANGELES AERIAL RAPID TRANSIT PROJECT UPDATE** [2020-0048](#)

RECOMMENDATION

RECEIVE oral report on the Los Angeles Aerial Rapid Transit Project.

33. **SUBJECT: MOVING BEYOND SUSTAINABILITY** [2020-0439](#)

RECOMMENDATION

ADOPT Moving Beyond Sustainability as Metro's strategic plan for sustainability over the next ten years.

Attachments: [Attachment A-MBS Report](#)
[Attachment B-Public Comment Matrix](#)

34. **SUBJECT: OFFICE OF THE INSPECTOR GENERAL REPORT ON METRO PERSONNEL HIRING PROCESS STUDY** [2020-0426](#)

RECOMMENDATION

RECEIVE AND FILE Office of Inspector General ("OIG") report on Metro Personnel Hiring Practices Study

Attachments: [Attachment A - Personnel Hiring Process Study
Presentation](#)

SUBJECT: GENERAL PUBLIC COMMENT

[2020-0603](#)

RECEIVE General Public Comment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

COMMENTS FROM THE PUBLIC ON ITEMS OF PUBLIC INTEREST WITHIN COMMITTEE'S
SUBJECT MATTER JURISDICTION

Adjournment



Board Report

File #: 2020-0552, File Type: Contract

Agenda Number: 7.

EXECUTIVE MANAGEMENT COMMITTEE SEPTEMBER 17, 2020

SUBJECT: EXPRESSLANES FINANCIAL ADVISORY SERVICES

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer (CEO) to:

EXECUTE Modification No. 1 to Task Order No. 17 to Contract No. PS 13052103I to exercise two (2), one-year options with Sperry Capital Inc. to serve as financial advisor on the Metro ExpressLanes, in the not-to-exceed amount of \$337,725 for Option Year 1, and in the not-to-exceed amount of \$270,180 for Option Year 2, increasing the not to-exceed Task Order value from \$1,243,065 to \$1,850,970 and extending the contract term from October 17, 2020, to October 17, 2022.

ISSUE

Task Order No. 17 currently provides for financial advisory services on the Metro ExpressLanes. The Task Order will expire on October 17, 2020. Staff is requesting a contract modification to exercise both Option Year 1 and Option Year 2, extending the contract term from October 17, 2020, to October 17, 2022, to provide financial advisory services, including TIFIA and bond financing advisory services, to support the delivery of Metro's ExpressLanes network, particularly the I-105 ExpressLanes Project.

BACKGROUND

To expand ExpressLanes in Los Angeles County and to construct the Tier 1 and Tier 2 projects identified in the 2017 ExpressLanes Strategic Plan (ELSP), Metro needs to determine how these projects will be funded and whether it is feasible to accelerate them. The ELSP assumes that virtually all the ExpressLanes projects will need to be funded by toll revenue-based financing mechanisms. The ELSP identified the I-105 ExpressLanes project as a Tier 1 (near-term) project.

While some of the projects in the plan receive funding through Measure M including \$175 million for the I-105 and \$260 million for the I-405, a significant funding gap exists on the I-105 and a significant funding gap is anticipated on the I-405. Furthermore, no other funding has been identified for the remainder of the projects included in the plan, resulting in a large funding shortfall. To bridge the financial gap, staff will evaluate and attempt to secure other sources of revenue including state and

federal grants, toll revenue bonds, Transportation Infrastructure Financing and Innovation Act (TIFIA) loans, Public Private Partnerships or similar innovative financing mechanisms and if authorized, toll revenue loans from other ExpressLanes. In order to consider the appropriate financing options and implement the most cost-effective strategies for accelerated development of Metro's ExpressLanes network, Metro needs to consult with its financial advisor.

DISCUSSION

Metro awarded Task Order No. 17 for Sperry Capital Inc. to serve as financial advisor on the Metro ExpressLanes project in October 2017. Execution of Contract Modification No. 1 will enable the contractor to continue to support activities necessary to close the funding gap for the I-105 ExpressLanes project and support the development of other projects identified in the ELSP.

Staff is currently working alongside its financial advisor to prepare the financing plan for I-105 ExpressLanes Project (105 Project). Metro is considering submission of a letter of interest (LOI) for TIFIA financing and considering pursuing bond financing to bridge the funding gap for the 105 Project. Staff will seek Board approval prior to entering into any agreements or loan commitments. Metro released the draft environmental impact report for the 105 Project in May 2020. The environmental impact report is expected to be finalized in December 2020. While construction for the 105 Project is not expected to begin until 2022, the financing process, including an application for TIFIA, is expected to take 18-24 months which is why staff is requesting both option years be exercised.

Key activities in support of pursuing a TIFIA loan as part of the financing plan for the I-105 Project include:

- Preparation of a preliminary schedule for obtaining TIFIA credit assistance
- Drafting and submitting a LOI
- Obtaining a preliminary credit rating opinion letter
- Developing a TIFIA- and project-specific financial model
- Making an oral presentation to TIFIA
- Submitting a TIFIA application, if invited to do so by TIFIA
- Negotiating terms of the credit agreement with TIFIA

If TIFIA financing is secured, the remaining 105 Project funding gap would be financed through toll revenue-backed obligations, such as toll revenue bonds. Key activities in support of pursuing bond financing as part of the financing plan for the I-105 Project include:

- Preparation of a preliminary schedule for bond financing
- Obtaining credit ratings

- Drafting disclosure documents
- Selection of an underwriting syndicate
- Developing financial models and transaction structure

Based on the expected schedule for project development and the expertise needed to pursue both TIFIA and bond financing, staff anticipates ongoing support from its financial advisors will be required to assure successful and timely financing for the I-105 Project.

DETERMINATION OF SAFETY IMPACT

This action will have no impact on safety for Metro.

FINANCIAL IMPACT

This Task Order is allocated to Cost Center 2220 (Congestion Reduction), Project 307001 and Project 307002. To date in FY 2021, \$90,621 has been encumbered and \$20,450 has been expended, with \$215,800 remaining in the budget. Since this is a multi-year contract, the Cost Center Manager and Executive Officer, Congestion Reduction Programs, will be responsible for budgeting in future years.

Impact to Budget

This action does not impact bus and rail operating or capital funding.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Metro Vision 2028 Strategic Plan identifies five goals to guide Metro's work and initiatives. This Board action supports the following goals.

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling.

The purpose of the I-105 ExpressLanes project, as well as the existing I-110 and I-10 ExpressLanes and other projects identified in the ELSP, is to actively manage traffic through dynamic pricing of roadway capacity to optimize traffic flow and provide faster, more reliable trips. Allowing Metro's ExpressLanes financial advisor to continue their work and evaluate financing options for the project will enable Metro to pursue expedited project delivery, to identify potential project savings, and to ensure project performance throughout its lifecycle.

Goal 2: Deliver outstanding trip experiences for all users of the transportation system.

A key benefit of Metro's ExpressLanes is improved corridor performance through a reduction in recurring peak period congestion and travel times, as well as an increase in average speeds,

throughput, and reliability for freight shipments and travelers.

Goal 5. Provide responsive, accountable, and trustworthy governance within the Metro organization.

TIFIA has been shown to achieve more flexible financing terms and better costs, supporting Goal 5.2 to exercise good public policy judgment and sound fiscal stewardship.

ALTERNATIVES CONSIDERED

The Board could decide not to approve the recommended contract modification. This alternative is not recommended, as this would impact the preparation of the financing plan for the project and delay the overall project schedule.

NEXT STEPS

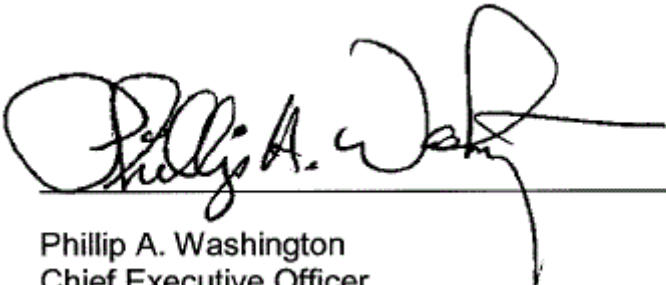
Upon Board approval, staff will execute Modification No. 1 to Task Order No. 17, for both options years, with Sperry Capital Inc. to continue to serve as financial advisor on the Metro ExpressLanes project.

ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - Contract Modification/Change Order Log
- Attachment C - DEOD Summary

Prepared by: Mark Linsenmayer, Deputy Executive Officer, (213) 922-5569

Reviewed by: Shahrzad Amiri, Executive Officer, (213) 922-3061
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

EXPRESSLANES FINANCIAL ADVISORY SERVICES
PS13052103I-TASK ORDER NO. 17

1.	Contract Number: PS13052103I-Task Order No. 17			
2.	Contractor: Sperry Capital, Inc.			
3.	Mod. Work Description: Exercise Option Years 1 and 2			
4.	Contract Work Description: Financial advisory services in support of the Metro ExpressLanes project			
5.	The following data is current as of: August 31, 2020			
6.	Contract Completion Status		Financial Status	
	Task Order Awarded:	October 17, 2017	Task Order Award Amount:	\$1,243,065
	Notice to Proceed (NTP):	N/A	Total of Modifications Approved:	\$0
	Original Complete Date:	October 17, 2020	Pending Modifications (including this action):	\$607,905
	Current Est. Complete Date:	October 17, 2022	Current Task Order Value (with this action):	\$1,850,970
7.	Contract Administrator: DaValory Donahue		Telephone Number: 213.922.4726	
8.	Project Manager: Mark Linsenmayer		Telephone Number: 213.922.5569	

A. Procurement Background

This Board Action is to approve Modification No. 1 to authorize two, one-year option terms on Contract No. PS13052103I - Task Order No. 17.

All Task Orders and Modifications are handled in accordance with Metro's Acquisition Policy. Contract type is a firm fixed unit price.

This task order modification will allow the continuation of financial advisory services to support the delivery of Metro's ExpressLanes network through October 17, 2022.

Refer to Attachment B – Contract Modification/Change Order Log.

B. Price Analysis

The recommended price for this modification is determined to be fair and reasonable based upon previously negotiated fixed hourly rates.

Proposal Amount	Metro ICE	Modification Amount
\$607,905	\$607,905	\$607,905

CONTRACT MODIFICATION/CHANGE ORDER LOG

EXPRESSLANES FINANCIAL ADVISORY SERVICES
PS13052103I-TASK ORDER NO. 17

TO Mod. No.	Description	Status (approved or pending)	Date	Amount
1	Execute Option Year 1 and 2 and extend period of performance in accordance with SOW	Pending	Pending	\$607,905
	Modification Total:			\$607,905
	Original Task Order Total:		10/17/17	\$1,243,065
	Task Order Total:			\$1,850,970

**DEOD SUMMARY
EXPRESSLANES FINANCIAL ADVISORY SERVICES
PS13052103I - TASK ORDER NO. 17**

A. Small Business Participation

The Diversity & Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise (SBE) participation goal for this procurement. However, Sperry Capital became SBE certified after contract award. Sperry Capital’s current SBE participation is 75.6%.

Small Business Commitment	0% SBE	Small Business Participation	75.6% SBE
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	SBE Contractors	% Committed	Current Participation¹
1.	Sperry Capital (Prime)	0%	75.6%
	Total	0%	75.6%

¹Current Participation = Total Actual amount Paid-to-Date to SBE firms ÷ Total Actual Amount Paid-to-date to Prime.

B. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

C. Living Wage Service Contract Worker Retention Policy Applicability

A review of the current service contract indicates that the Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) was not applicable at the time of award. Therefore, the LW/SCWRP is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.



Board Report

File #: 2020-0465, **File Type:** Plan

Agenda Number: 15.

**PLANNING AND PROGRAMMING COMMITTEE
SEPTEMBER 16, 2020
EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 17, 2020**

SUBJECT: 2020 LONG RANGE TRANSPORTATION PLAN REQUEST FOR ADOPTION

ACTION: APPROVE ADOPTION OF 2020 LONG RANGE TRANSPORTATION PLAN

RECOMMENDATION

CONSIDER:

APPROVING the following:

- A. ADOPT the 2020 Long Range Transportation Plan; and
- B. APPROVE the development of a Short Range Transportation Plan, to include a strategic project list.

ISSUE

The 2020 Long Range Transportation Plan (“2020 LRTP”, Attachment A) details how Metro plans, builds, operates, maintains and partners for improved mobility in the next 30 years. Given the challenges facing Los Angeles County, there is also a compelling opportunity to demonstrate the long-term benefits of bold policies to address the need for improved access to opportunity and a more sustainable future.

BACKGROUND

Metro must adopt a financially constrained LRTP in order to remain eligible to receive federal and state funding. In September 2017, staff began work to update the 2009 LRTP, following the passage of Measure M, and in alignment with the Southern California Association of Governments (SCAG) process for updating the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Metro’s LRTP demonstrates how Los Angeles County transportation projects conform with the state and federal air quality mandates for funding eligibility. The technical detail for the 2020 LRTP is included in the 2020 LRTP Technical Document (Attachment B).

DISCUSSION

Strategies

The main strategy areas for the 2020 LRTP are: Better Transit; Less Congestion; Complete Streets; and Access to Opportunity. The projects, programs and policies that support and advance these strategies are detailed within the document. Together, these efforts will increase transit ridership and improve air quality.

The 2020 LRTP is a funded plan and forecast that examines how Metro's future transportation investments can be leveraged to achieve maximum mobility benefits for all of Los Angeles County. Building infrastructure will create economic benefits, but the LRTP also looks to maximize the mobility benefits, the environmental benefits, and the benefits of improved opportunities access. To do this, the LRTP emphasizes bold policies and close partnerships to incentivize more efficient use of the transportation system.

Public Engagement

The Board approved the release of the Draft 2020 Long Range Transportation Plan (Draft 2020 LRTP) for public review and comment in May 2020. The forty-five (45) day public comment period ended July 13, 2020.

Staff conducted extensive public outreach in unprecedented pandemic conditions. All public meetings were virtual, and a live webinar was also recorded for on-demand streaming. Additional efforts were made to reach the public as directly as possible. The public engagement effort, detailed in Attachment B (p.6) includes:

- Metro's most successful Telephone Town Hall, which contacted 100,000 individual telephone numbers;
- More than 23,000 postcards mailed to Equity Focus Communities;
- More than 15 million social media and online advertising impressions, the majority of which targeted underserved communities;
- Almost 2.5 million direct emails; and
- Printed posters on all bus and rail lines.

These efforts resulted in more than 130,000 visits to the 2020 LRTP and related information at OurNext.LA. The comments received through the website or submitted directly to Metro have been addressed and incorporated where appropriate. The comments received and corresponding responses are included as Attachment C.

The majority of public comments can be summarized in the following topic areas:

- Strong support for expanded transit;
- Safety and security recommendations;
- Homelessness concerns;
- Support for roadway enhancements;
- Support for active transportation and complete streets;

- Concern about the implications and unknowns surrounding COVID-19;
- Many project-specific comments and requests (e.g., projects completed sooner, alignment comments, etc.);
- Comments about modal prioritization and regional prioritization of funding;
- Comments about equity; and
- Comments about fare policy and congestion pricing.

Comments from public agencies were similar, but were primarily focused on:

- Future funding questions; and
- Future strategic project recommendations.

LRTP Supplemental Information

In response to the comments received, the LRTP was revised to include additional detail and refinements. An index of those changes is included as Attachment D.

Technical Document

The LRTP Technical Document (Attachment B) contains a variety of data and additional detail for the actions and assumptions in the 2020 LRTP. Some of the elements the Technical Document provides include: public engagement metrics; project and program descriptions; subregional demographics and travel patterns; travel demand model analysis and assumptions; performance measures; and financial forecast details and assumptions.

Equity Platform

The 2020 LRTP was developed through extensive public engagement based on the “Listen and Learn” pillar of the Equity Platform. The LRTP was drafted during 2 years of continuous public engagement, which included more than 100 community events and public meetings, and more than 60,000 survey responses and priority rankings. Following the release of the draft LRTP, staff continued to engage stakeholders throughout the County (Attachment B, p. 12).

The remaining three pillars are all addressed within the 2020 LRTP, including but not limited to: Define and Measure, through the Equity Focus Community metrics; Focus and Deliver, through the program and project actions; and Train and Grow, in Metro’s ongoing efforts to expand opportunities for access across all facets of Metro’s roles (e.g., employer, builder, partner, funder, etc.). The 2020 LRTP also introduced Metro’s definition of Equity, and related action items, as part of the public comment period for the draft LRTP.

DETERMINATION OF SAFETY IMPACT

This item does not have a direct impact on safety, but it does address Metro’s commitment to improve safety.

FINANCIAL IMPACT

This item has no fiscal impact to the agency.

Impact to Budget

Activities associated with completing the LRTP update are budgeted in the current fiscal year and are within budget. The financially constrained plan is aligned with the FY21 budget and will be recalibrated with future Board actions.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The 2020 LRTP includes and advances all five goals of Vision 2028, which calls for the LRTP to “operationalize” its strategic plan initiatives. The LRTP relationship to Vision 2028 is described in Figure 7 of the 2020 LRTP (Attachment A, p.25). Most specifically, the LRTP advances the performance outcome from the Strategic Plan of increasing all non-solo driving mode share. The LRTP provides strategies that would increase transit trips up to 81%.

ALTERNATIVES CONSIDERED

The Metro Board can choose to delay adoption of the 2020 LRTP and continue to use the 2009 LRTP. However, to ensure that the public engagement effort remains relevant, timely with SCAG’s RTP/SCS development, and consistent with stakeholder input and the Equity Platform, the Board should consider adopting as soon as possible. This would allow staff to move forward and focus on the development of a shorter term action plan, based on the LRTP priorities.

NEXT STEPS

After the recommended adoption of the 2020 LRTP, staff will begin work on an action plan, in the form of a Short Range Transportation Plan (SRTP). The SRTP would recommend near-term implementation steps over a ten-year timeframe and allow for any needed recalibrations from the current COVID-19 pandemic.


One of the comments received from several agencies was the need to add strategic projects (Attachment C). The first steps of the SRTP effort will be reassessing the financial forecast for the short-term horizon, and engaging partners on their strategic project needs to create a strategic project list.

ATTACHMENTS

Attachment A - 2020 Long Range Transportation Plan
Attachment B - 2020 LRTP Technical Document
Attachment C - LRTP Public Comment Response Matrix
Attachment D - Summary of Draft LRTP Revisions

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Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920



Phillip A. Washington
Chief Executive Officer

Attachment A

2020 Long Range Transportation Plan



Metro[®]

**We have a plan for
OUR NEXT LA*.**

2020 Long Range Transportation Plan



DRAFT

Conceptual Illustration of Plan Elements

**By LA, we mean all 88 cities, unincorporated areas and hundreds of neighborhoods, in LA County.*



We have a Plan
for a future
where we spend
less time in traffic,
and less of us
drive alone.

OUR NEXT LA*
provides a
detailed roadmap
for the journey.

Improving mobility is complicated.

That's why our plan weaves efforts across four priorities:

We envision *better transit*, with seamless trips for riders travelling across LA to learn, work or play.

Our vision is *less congestion*, where traffic flows more freely and travel times are more certain.





All these solutions work together,
but we cannot achieve them alone.
We need every Angeleno to partner
with us in this effort.

DRAFT

North Hollywood

*Together, we can
make real change.*

DRAFT



Letter from the CEO

Dear Friends,

The Long Range Transportation Plan (LRTP) provides the funding plan and bold policies needed to move us forward to a future LA County that is environmentally and economically sustainable, while continuing to reduce congestion. We are still learning from the current pandemic, but the need for specific long-term and near-term action plans has never been more apparent.

We must seize this opportunity to pursue a more sustainable future by taking steps now to manage the capacity and improve the effectiveness of our transportation system. Metro's LRTP details how Metro will work toward elevating the quality of our services and the reach of our transportation system, to make them better for everyone.

The benefits of improved mobility are greater access to opportunities for all, including jobs, education, housing and health care – essential elements for a higher quality of life. The responsibility for improving mobility in our region is at the core of Metro's 30-year LRTP, as is our commitment to improving equity through these efforts.

The LRTP provides a balanced, comprehensive approach by considering the mobility needs of everyone in LA County, and matches those access needs with Metro's expected resources to transform our transportation future. As Metro continues to implement the largest transportation expansion program in the country – thanks to Measure M – we also face the need to improve the quality of our existing services and leverage all modes in our system for more reliable, convenient and safe travel anywhere in the county.

Southern California's transportation challenges require bold leadership and action. Metro's LRTP establishes unprecedented levels of commitment to mobility improvement and innovative approaches to address our current and future needs. Solutions for complex problems require a collaborative approach from everyone in the region, including each of you. Please consider the LRTP an invitation to everyone in LA County to join us in moving toward a better mobility future.

Sincerely,



Phillip A. Washington
Chief Executive Officer



What is COVID-19 teaching us?

In March 2020, as the LRTP was being prepared for public release, the United States went into quarantine in response to the COVID-19 pandemic. The pandemic has reshaped all aspects of our lives, including how we work and travel, but the long-term impacts are unknown. Future updates to the LRTP and the forthcoming Short Range Transportation Plan (SRTP) will explore some of the current uncertainties, including:

Financial

Metro will continue to prioritize financial stability throughout and beyond the pandemic. COVID-19 brought a reduction in sales tax receipts and fare revenues; however, Metro remains committed to the safety of our drivers and riders. As of June 2020, Metro estimated a \$1.8 billion gap in funding from combined decreases in sales tax, fare revenue, and toll revenue, as well as increased operating expenses, but is also anticipating more than \$1 billion in financial support from the federal government through the CARES Act for LA County. Though it is still unknown how long the pandemic will impact the operations of Metro and the economy as a whole, Metro is continuously seeking innovative ideas, operational efficiencies and value engineering to improve our financial stability.

Travel Behavior

While the LRTP recognizes that there are major challenges facing our region, such as climate change, a housing crisis and congestion, the pandemic presents a unique opportunity to reposition our priorities and future actions. The pandemic has shown us how significant change can also result in potential benefits, when we look at reduced traffic. COVID-19 forced companies to re-examine remote working as a functional, healthy alternative in many industries. Continuing to promote telecommuting and/or other flexible transportation solutions will help sustain the congestion reduction and air quality benefits we are currently experiencing.

Operational

Metro's transit system saw an immediate reduction in ridership at the onset of the pandemic and the Stay At Home orders. When the Stay At Home restrictions began in March 2020, Metro deployed operational changes, such as providing a modified Sunday schedule to respond to reduced ridership, adding 60-foot buses for more capacity, increased cleaning and sanitizing of vehicles at the start and end of every revenue service, and introducing 20-minute headways during evening hours on Metro's rail system. By Summer 2020, Metro returned to roughly 50% of its previous ridership, and plans a phased return to full transit operations. However, the long-term impacts of the pandemic will continue to evolve.

While the pandemic has brought immediate changes and will have some unknown lasting impacts, the LRTP is a 30-year plan with a broad vision and strategies that are flexible and responsive to future challenges facing the region. The LRTP is a living document that will be amended to include any Board adopted recovery initiatives, as well as any financial forecast updates. Once adopted, Metro will look to a more detailed snapshot of the next decade with an SRTP focused on the immediate challenges for LA County.



better transit

p26

less congestion

p40

complete streets

p54

*access to
opportunity*

p64

DRAFT

Table of Contents

Introduction	3	Tables and Charts	
Letter from the CEO	8	<i>Figure 1</i>	LA County Projected Regional Growth 14
What is COVID-19 teaching us?	10	<i>Figure 2</i>	Emissions from Metro Operations 17
Challenges & Opportunities	14	<i>Figure 4</i>	Elements of the 2020 LRTP 21
We must respond to the challenges of today <i>and</i> tomorrow.	14	<i>Figure 5</i>	Benefits of the 2020 LRTP 22
Therefore, let us be bold.	16	<i>Figure 6</i>	Potential Increase in Daily Transit Trips 23
Metro will lead the way.	18	<i>Figure 7</i>	Metro’s Framework for Improving Mobility in LA County 25
LRTP Elements, Benefits & Priorities	20	<i>Figure 8</i>	Transit Corridor Investment 30
We’ve built a multi-layered, responsive plan.	20	<i>Figure 10</i>	Daily Transit Trips 38
Benefits at a Glance	22	<i>Figure 11</i>	Transit Mode Share for Commute Trips 38
Metro’s Plan guides our priorities.	24	<i>Figure 12</i>	Percent of Households within a 10-minute Walk or Roll of Fixed Guideway Transit 39
Our Next LA* is better transit.	26	<i>Figure 14</i>	Highway Corridor Investment 44
Transit Investment	30	<i>Figure 16</i>	Annual Vehicle Miles Traveled Per Capita 52
Strategies & Actions	32	<i>Figure 17</i>	Annual Vehicle Hours of Delay Per Capita 52
Performance Measures	38	<i>Figure 18</i>	Average Morning Travel Time 53
Our Next LA* is less congestion.	40	<i>Figure 20</i>	Annual Million Metric Tons of CO₂ Equivalent 62
Highway Investment	44	<i>Figure 21</i>	Annual Tons Particulate Matter (PM₁₀) 62
Strategies & Actions	46	<i>Figure 24</i>	Net Jobs Created and Increase in Gross Regional Product 74
Performance Measures	52	<i>Figure 25</i>	Percent of Activity Centers and Jobs within a 10-minute Walk or Roll of Fixed Guideway Transit 75
Our Next LA* is complete streets.	54	<i>Figure 26</i>	Countywide Uses and Sources of Transportation Funding 77
Active Transportation	56	<i>Figure 27</i>	Local Return Funding 79
Strategies & Actions	58	<i>Figure 28</i>	Multi-year Subregional Program Funding 79
Performance Measures	62	<i>Figure 29</i>	Transit Operations and SGR 81
Our Next LA* is access to opportunity.	64	<i>Figure 30</i>	Freeway Operations and SGR 81
Equity Focus Communities	66	Maps	
Strategies & Actions	68	<i>Figure 3</i>	LA COUNTY FIXED GUIDEWAYS 18
Performance Measures	74	<i>Figure 9</i>	PLANNED TRANSIT PROJECTS 31
Funding a Transportation Revolution	76	<i>Figure 13</i>	EXPRESSLANES STRATEGIC NETWORK 43
Supporting Our Partners	78	<i>Figure 15</i>	PLANNED HIGHWAY PROJECTS 45
Operations & Maintenance	80	<i>Figure 19</i>	ACTIVE TRANSPORTATION CORRIDOR PROJECTS 57
Bold New Policies & Programs	82	<i>Figure 22</i>	METRO DESIGNATED EQUITY FOCUS COMMUNITIES 67
Plans for today, and the decades to come.	84	<i>Figure 23</i>	JOINT DEVELOPMENT PROJECTS 71

We must respond to the challenges of today *and* tomorrow.

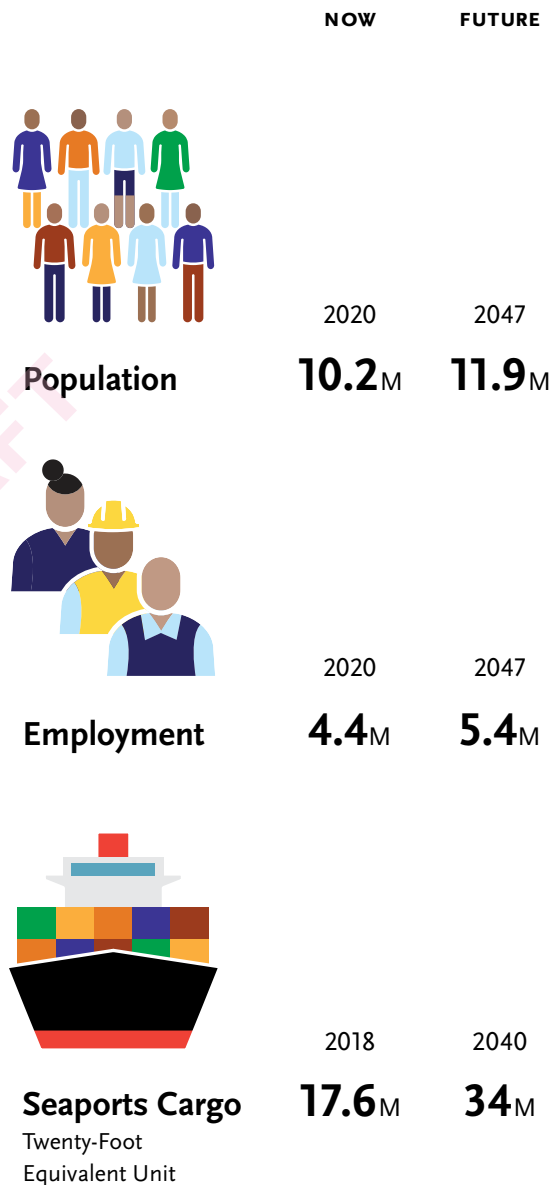
In 2020, LA County is at a pivotal point in its history. We have made great strides in economic development and community revitalization, welcomed new sports teams and stadiums, and attracted the 2028 Olympics and other major events. However, our region faces many challenges in the years ahead, including reducing roadway congestion, increasing transit ridership, adapting to and mitigating the impacts of a changing climate, tackling the housing crisis and improving quality of life in our communities. Furthermore, recent events have highlighted the significant regional impact that unforeseen events, such as the COVID-19 pandemic, can have on our regional transportation system, economy and financial outlook. Metro will respond to this and any future crisis to prioritize public health and safety, while implementing lessons learned to continually provide better mobility with less congestion.

One thing is certain: a reliable, high-quality transportation system is crucial to LA County’s economic recovery, continued prosperity and quality of life. The challenge of efficiently moving people and goods takes on particular significance in LA County, given its vast geographic scale and longstanding association with the automobile. Few issues will be more important in shaping our region’s future and sustaining its incredible economic and social promise than our collective ability to marshal the resources and the political will to implement transportation solutions that successfully meet LA County’s mobility needs, now and in the future.

Metro’s mission is to provide a world-class transportation system that enhances quality of life for all who live, work and play within LA County (Vision 2028 Strategic Plan). As its Regional Transportation Planning Agency, Metro has the unique opportunity and responsibility to evolve the LA County transportation system to better serve its residents and visitors, and to maximize economic, mobility, safety, environmental and quality of life benefits.

Figure 1

LA County Projected Regional Growth



LA County at a Glance

LA County is home to more than

10 million people

– the most populous county in the United States.

Metro operates the

3rd largest transit system

in the nation, with more than

1.2 million daily boardings.*

LA County's transit providers operate

over 7,000 buses

and serve approximately

1.6 million daily bus passengers.*

Metro's **1,433** square-mile transit service area fits the combined land areas of:

Boston
 Dallas
 Denver
 New Orleans
 New York City
 Philadelphia
 Portland
 San Francisco
 Seattle
 and Washington DC

In addition to Metro,

16 municipal bus operators

and **42 local operators**

serve LA County residents.

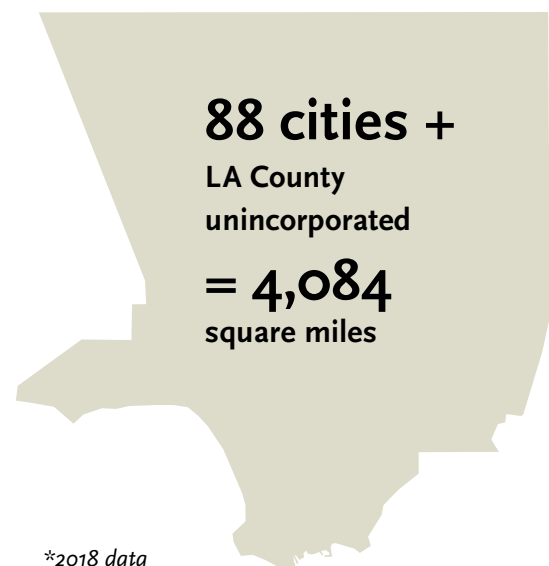
Metro Rail and Metrolink trains carry over

340,000 daily passengers

on **300 miles of rail**

in LA County*.

LA County has close to **22,000 miles of highways, arterials, and local roadways.**



Therefore, let us be bold.

To that end, this Long Range Transportation Plan (2020 LRTP) will outline what Metro is doing currently and what Metro must do for LA County. Current challenges present great opportunities for Metro to take bold action and help achieve our vision for the region.

A Growing County

LA County is home to many of the nation's most congested highway corridors. Its population is expected to grow by approximately 1.7 million by 2047, increasing the number of people and volume of goods traveling on an already strained transportation network. Furthermore, while LA County is fortunate to have dedicated local funding sources, system needs still exceed available financial resources, and Metro must assess our priorities and determine what is most essential.

Changing Mobility Needs and Preferences

Our transportation system must remain resilient to evolving demographic and consumer demands, changes to the delivery of goods and services, and other unforeseen challenges that lie ahead. For example, as the population ages, older people have different needs for access than younger people, while younger people tend to have different expectations about the use of technology for their transportation choices.

Technological Change

Over the coming decades, new technologies will change the way we access goods and services, reshaping our mobility landscape, and affecting our travel preferences and expectations. For example, the widely anticipated advent of connected and autonomous vehicle technology presents possibilities for safer, more efficient vehicle travel, but raises equity concerns and could exacerbate dependency on auto travel if not properly regulated. Metro is well positioned to harness the power of private sector technology innovations to enhance customer experience by offering new mobility services, integrating and optimizing the design of vehicles and infrastructure, and increasing overall system efficiency to better serve the mobility needs of all users.





Equitable Access to Opportunity

Disparities in transportation access, mobility, economic prosperity, health, safety and environmental quality persist across racial and socioeconomic lines. Historically, transportation policies and investments in LA County have prioritized single-occupant vehicle (SOV) travel over more affordable, high-quality mobility alternatives. Furthermore, consistently rising housing costs are pushing many workers farther away from their jobs, imposing added strains on the transportation system and affecting quality of life for those impacted. The result is an inequitable transportation system that exacerbates the divide between those who have the access and means to drive and those who do not, while providing inadequate options for both groups. The transportation system must provide access to safe, reliable and affordable travel options to those who need it most. Historical decision making has resulted in the current disparities; there is an opportunity now for Metro to coordinate investments in the communities with the greatest needs.

Adapting to a Changing Environment

Southern California is continuing to face the threats of a changing climate, including increasingly frequent and severe fires, mudslides, rising urban temperatures, and the associated impacts on the public health and livelihood of our residents. California is a national leader in addressing climate change; however, emissions from the transportation sector are still a major source of greenhouse gas (GHG) emissions (nearly 40%). Metro must lead LA County in reducing GHGs, through programs to electrify our bus fleet and promote low carbon transportation options. Furthermore, we must improve the sustainability and resiliency of our transportation system, through active asset management, lifecycle cost analysis for transportation projects and proactive planning for severe climate events.

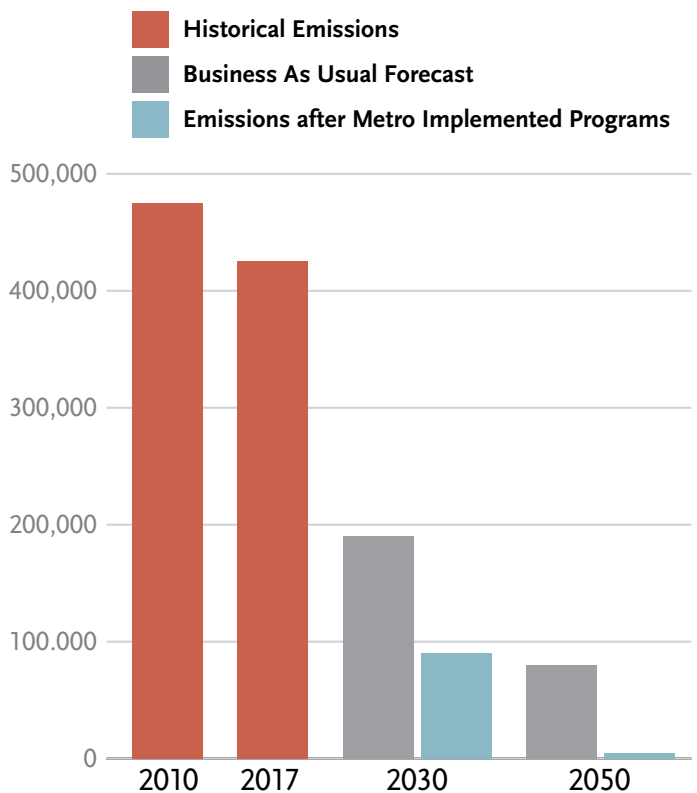
Metro commits to reducing our agency greenhouse gas emissions:

- > **by 79%** (relative to 2017 levels) **by 2030**
- > **by 100%** (i.e., zero emissions) **by 2050**

Figure 2

Emissions from Metro Operations

Metric tons of carbon dioxide equivalent



Source: Climate Action and Adaptation Plan (2017)

How We Manage

In many cases, it is not possible to build the additional capacity necessary to address the constraints on the transportation system. A functioning highway network is an essential component of an effective transportation system. There is limited space to expand roads, and while fixing bottlenecks has alleviated congestion in places, adding more general-purpose freeway lanes is often an expensive and disruptive option that will not solve congestion as the county continues to grow. Therefore, Metro must ensure that the regional transportation system is managed effectively through active corridor monitoring and operations. Working with our partners, we promote policies and programs, such as congestion pricing, integrated corridor management and parking management strategies, that allow us to better utilize space to transport more people to more destinations. We will continue to build out a network of ExpressLanes to improve reliability on our freeways. Since the 2009 Long Range Transportation Plan, we have opened 96 miles

2020



along two ExpressLanes corridors. Over the next decade, Metro will introduce an additional 210 miles of ExpressLanes on four additional corridors. We will continue to prioritize bus travel and provide dedicated space on arterial corridors, such as the Wilshire Boulevard and Flower Street bus lane projects, and work to implement the recommendations of the NextGen Bus Plan. Furthermore, we will invest in technology and promote innovative new mobility options, such as carsharing, micro mobility, mobility on demand (MOD), microtransit (Metro Micro), Mobility as a Service (MaaS), connected and autonomous vehicles and freight-focused technologies. We will assess current and new pricing models to develop a simplified, equitable, fiscally sustainable, system-wide approach to pricing while also providing better mobility and security for all users across Metro's portfolio of transportation services.

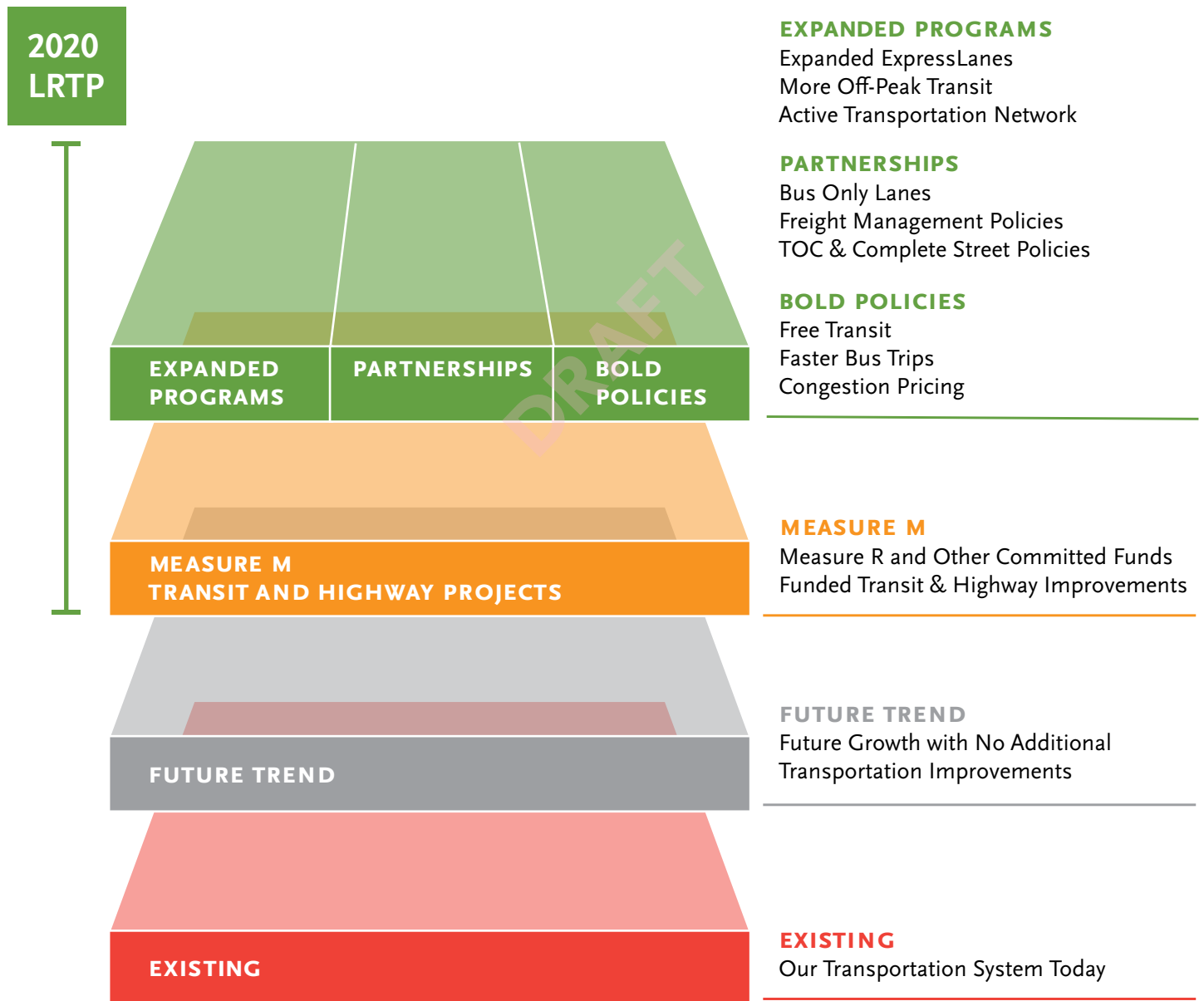
How We Maintain

In addition to building and managing, Metro is taking steps to continuously maintain and upgrade the multimodal system and enhance its quality and safety. While Metro's transit system is newer than other peer agency systems, its rehabilitation and replacement needs will continue to grow. In 2019, Metro completed the New Blue Improvements Project, which rehabilitated Metro's oldest rail line, the A Line (Blue) between Long Beach and downtown Los Angeles. Our investment plan includes over \$200 billion for operations and state of good repair, as well as \$38 billion in funding that returns to local agencies to maintain their local transportation system. Maintaining the system also includes upgrading and modernizing the system to enhance our customer experience and improve safety. Metro will continue to invest in technology, amenities, safety improvements and other system enhancements to create a world-class transportation system.

How We Partner

Metro relies on continuous coordination and meaningful partnerships with local, state and federal agencies, the private sector and all local stakeholders. These partnerships are crucial for funding and delivering projects and for coordinated planning on issues of regional significance as well as local importance. Being responsive to the diverse needs of our many stakeholders would not be possible without these essential partnerships. Metro will increase collaboration with local jurisdictions to support transit priority on local roadways, to improve first/last mile access to transit, to improve local mobility and to realize transit-oriented communities.

Figure 4
Elements of the 2020 LRTP



Benefits at a Glance

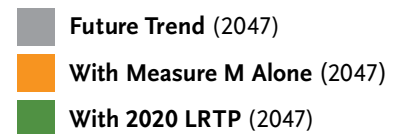
The 2020 Long Range Transportation Plan has the potential to deliver significant mobility benefits to the region through the major capital projects, programs and bold policies.

> The Measure M investment plan, on its own, will **dramatically expand regional access to high-quality travel options**. After implementation, 21% of county residents and 36% of jobs will be a 10-minute walk from high-quality rail or bus rapid transit options, up from only 8% of residents and 16% of jobs at present day.

> Metro's other actions, including current, expanded and new **bold initiatives**, can complement the current capital investment plan and help the region achieve the dramatic changes that we need, such as a potential **81% increase in daily transit trips**, a **31% decrease in traffic delay** and a **19% decrease in greenhouse gas emissions**.

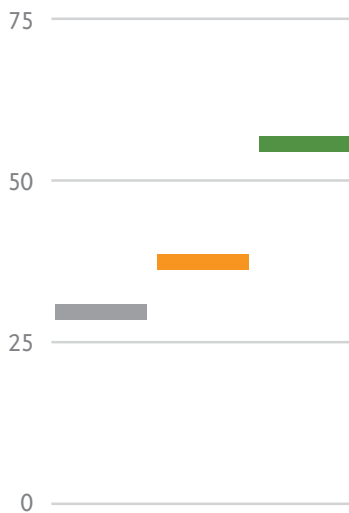
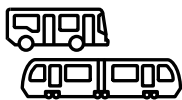
Figure 5

Benefits of the 2020 LRTP



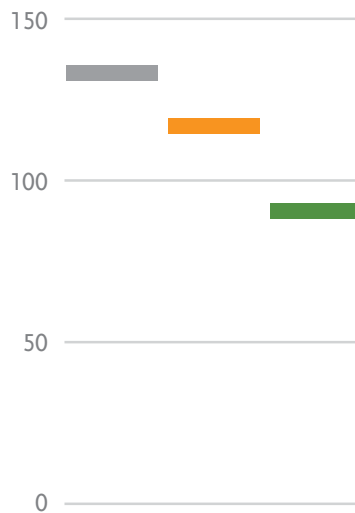
Transit Trips
annual trips per capita

↑
81%



Vehicle Hours of Delay
annual hours per capita

↓
31%



Greenhouse Gas Emissions
annual million metric tons

↓
19%

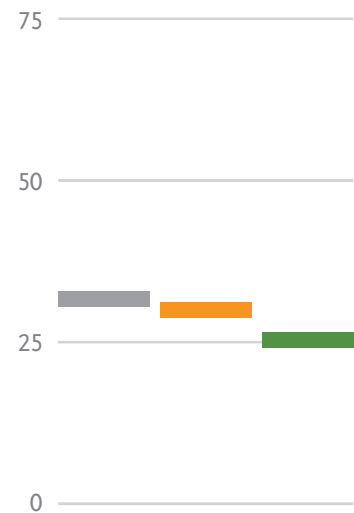
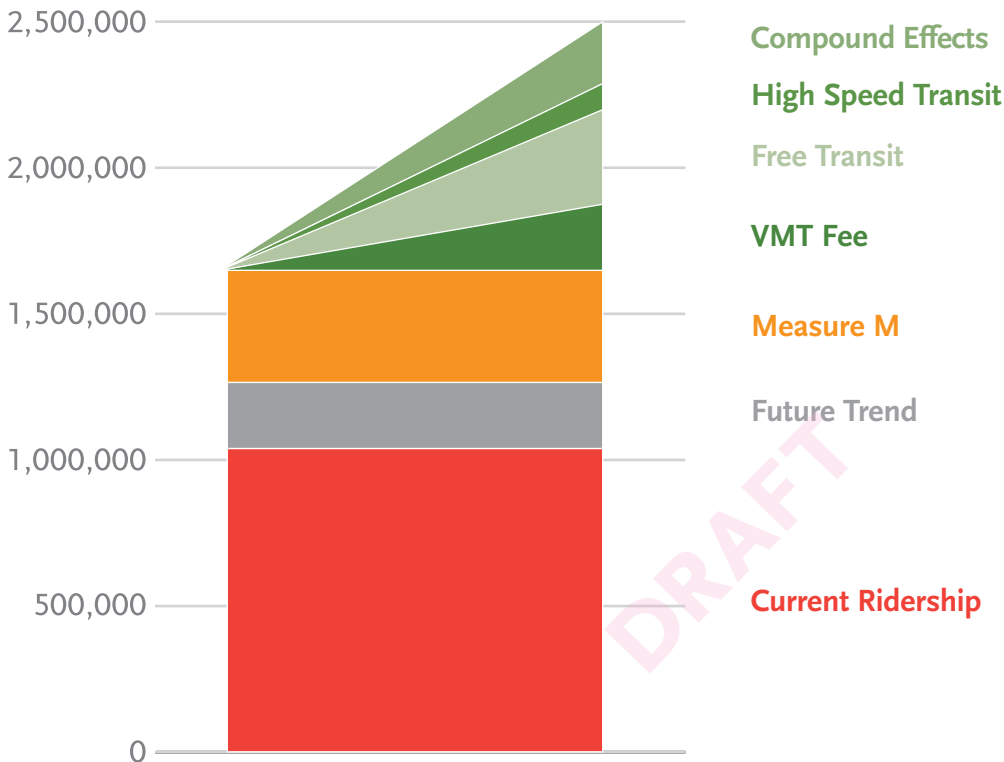


Figure 6

Potential Increase in Daily Transit Trips



Beyond the Measure M transit expansion, Metro can gain transit ridership with:

- 1. **Faster Transit (Increased fast/frequent transit):** **+7%**
- 2. **Reduced Transit Fares (Reduced fare/free transit):** **+25%**
- 3. **Road Charges (Mileage-based/VMT fees):** **+18%**

These scenario tests represent policy opportunities, but do not reflect specific policy directives. Board action will be required for any policy action or implementation.

Scenario modeling tested the impacts of these strategies above and beyond the transit expansion commitments in this plan.

- > Increases in frequency and increased speeds on 40 most popular bus routes could result in a 7% increase in ridership.
- > Reducing transit fares can increase ridership; a fully subsidized transit trip for all riders may increase ridership up to 25%.
- > For mileage-based fees, each one cent per mile increase can result in roughly a 1% increase in transit ridership. A 20 cent vehicle miles traveled (VMT) fee may result in a 18% increase in transit ridership.
- > Applied together, these strategies have compounding benefits and generate an even larger increase in ridership.

Metro's Plan guides our priorities.

As outlined in the *Vision 2028 Strategic Plan*, Metro's visionary outcome is to double the share of transportation modes other than solo driving. The Plan details five goals:

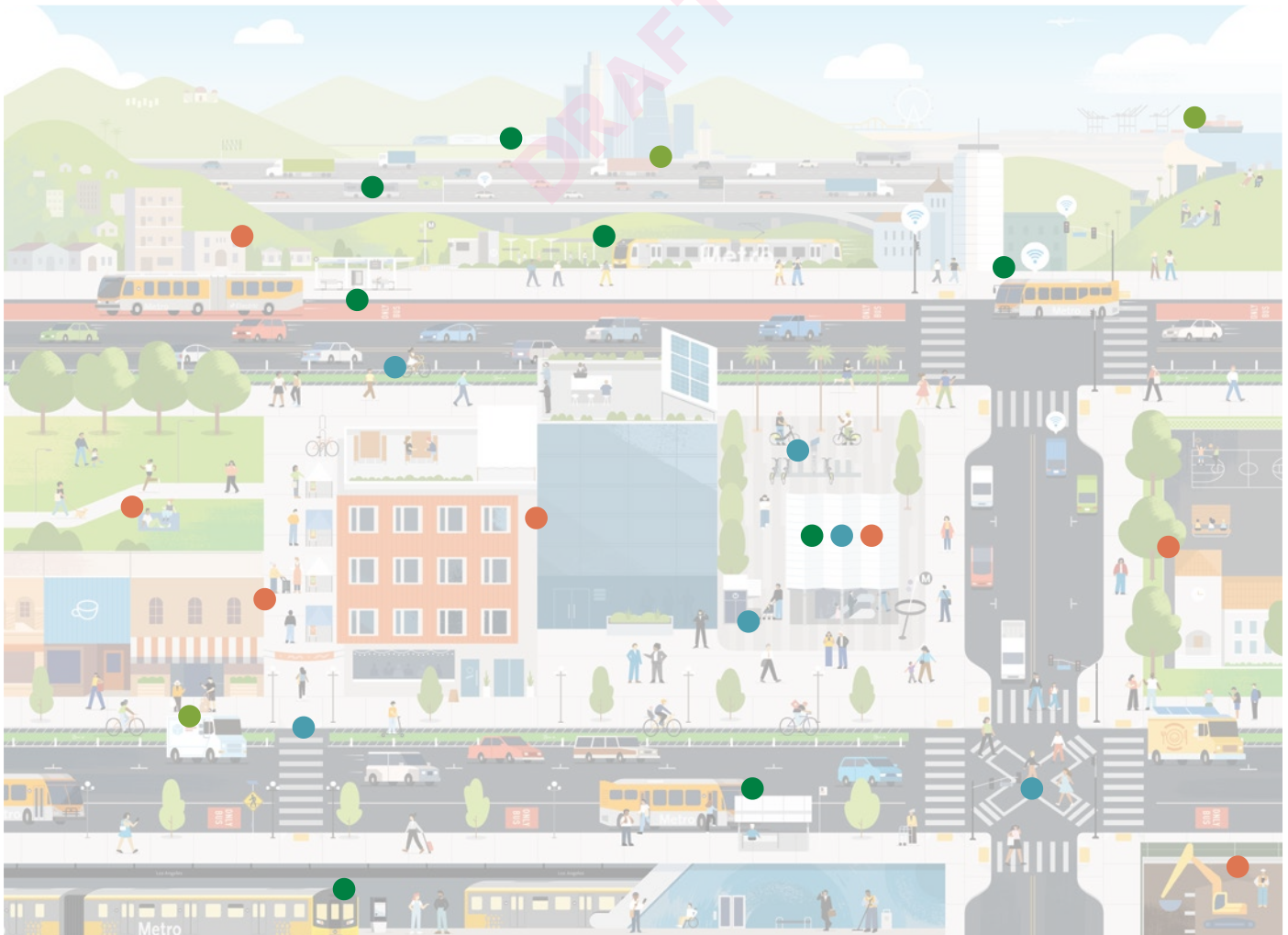
- 1 Provide high-quality mobility options that enable people to spend less time traveling
- 2 Deliver outstanding trip experiences for all users of the transportation system
- 3 Enhance communities and lives through mobility and access to opportunity
- 4 Transform LA County through regional collaboration and national leadership
- 5 Provide responsive, accountable, and trustworthy governance within the Metro organization

The 2020 L RTP lays out a future roadmap for bringing about a more mobile, resilient and vibrant future for LA County. Through extensive public outreach, Metro has distilled the region's desires into four priority areas:

- Better Transit
- Less Congestion
- Complete Streets
- Access to Opportunity

The recommended steps in this plan, the L RTP's strategies and actions, are organized by these four priority areas.

Embedded in the priority areas are **equity** to ensure every resident has the affordable transportation choices that work for their needs, and **sustainability** to ensure a bright future for generations to come. Together, we can create Our Next LA*.



Conceptual Illustration of Plan Elements

Figure 7

Metro’s Framework for Improving Mobility in LA County

We’re guided by our *Strategic Plan* goals.

 *Vision 2028 Strategic Plan*

We’re creating

- ① Faster Travel Options ② Better Trips ③ Thriving Communities**

Better Transit

Providing more transit options with improved quality and service

- Transit Projects*
- Bus Improvements*
- New Mobility Options*

Less Congestion

Managing the transportation system to reduce the amount of time people spend in traffic

- Roadway Improvements*
- Congestion Management*
- Goods Movement*

Complete Streets

Making streets and sidewalks safe and convenient for everyone, to support healthy neighborhoods

- Bike and Pedestrian Projects*
- Local Street Improvements*
- Station and Stop Access Enhancements*

Access to Opportunity

Investing in communities to expand access to jobs, housing and mobility options

- Workforce Initiatives*
- Support for Local Businesses*
- Transit Oriented Communities*

 *Long Range Transportation Plan*

We’re committed to

- ④ Leadership ⑤ Accountability**

-  Collaboration
-  Continuous Improvement
-  Customer Focus
-  Innovation
-  Inspired and Inclusive Workforce
-  Safety

 *Customer Experience Plan*  *COVID-19 Recovery Plan*

We’re intentionally focused on *eliminating racial and socioeconomic disparities and advancing sustainable practices in everything we do.*

-  Equity
-  Sustainability

 *Equity Plan*  *Moving Beyond Sustainability Plan*

**OUR
NEXT
LA* is**
better transit.

Better transit means faster, more frequent, secure and reliable public transportation, with more options and better customer experience. We must create a world-class transit system that is competitive with driving a private vehicle and that works for riders with different trip purposes and destinations. Better transit also means an integrated and seamless trip experience on rail, bus and new mobility transportation options.



**We're investing
in more transit,
to serve
more people.**

Over the **30-year period**, Metro will invest more than **\$80 billion** to improve, expand and upgrade LA County's extensive public transit system.

This includes the construction or improvement of 22 transit corridors and the addition of 106 miles of fixed guideway transit.

In total, the 2020 LRTP will expand the Metro Rail network to over 200 stations covering nearly 240 miles.

Our Commitment to Safety

Providing a safe, secure, clean, and comfortable experience on transit is perhaps the most critical priority for the operations of Metro's transit system. Recent events have put more of an emphasis on these issues, and Metro must maintain a balanced and coordinated effort to ensure that individuals are secure and feel safe riding transit, while at the same time making sure that we meet our commitments as a public agency that provides an essential public service.

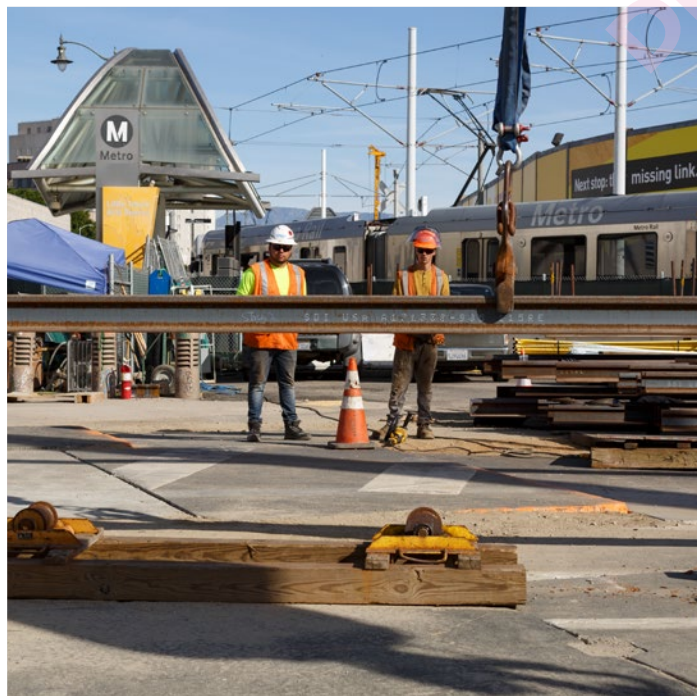
The COVID-19 pandemic has highlighted the need to provide clean spaces as well as free masks to keep passengers and drivers safe. At the same time, the number of individuals experiencing homelessness in LA County continues to increase and Metro must continue to provide compassionate responses and a public service for those with few resources.

Finally, the nationwide call for police reform has reinforced our need to examine our policing practices to ensure no individuals or population groups are disproportionately targeted, while at the same time ensuring the safety of our passengers and drivers.

Metro Rail Expansion

Construction is underway on several rail corridors. The Crenshaw/LAX Transit Project light rail line, expected to open in 2021, will extend from the E Line (Expo) to the C Line (Green), with a station at the Los Angeles International Airport's Automated People Mover. The Regional Connector Transit Project, scheduled to open in 2022, will connect the L Line (Gold) to the A Line (Blue) and E Line (Expo) to provide more stations in downtown Los Angeles and greater connectivity. The Westside D Line (Purple) subway extension along Wilshire Boulevard is under construction in three phases, with Section 1 from Western to La Cienega scheduled to open in 2023.

Other near-term projects include the Metro Gold Line Foothill Extension to Claremont, which recently broke ground, the East San Fernando Valley Light Rail Project, the West Santa Ana Branch Transit Corridor, and the C Line (Green) Extension to Torrance.



Bus Rapid Transit

Bus Rapid Transit (BRT) is a high-quality bus-based transit system that delivers fast, frequent service. It does this with bus-only lanes, traffic-signal priority and high-quality stations with all-door boarding. The G Line (Orange) was extended from Canoga Park to Chatsworth in 2012 and is currently undergoing further enhancements to improve operating speeds, capacity and safety by adding grade separations on major streets, closing minor streets and providing better signal priority technology.

Other near-term projects include the North Hollywood to Pasadena BRT and North San Fernando Valley Transit Corridor (Chatsworth to North Hollywood). Additionally, Measure M included funding for to-be-determined BRT corridors. The BRT Vision and Principles Study, currently underway, will identify performance standards and design criteria for future BRT projects.



Transit Investment

Figure 8

Major Transit Projects

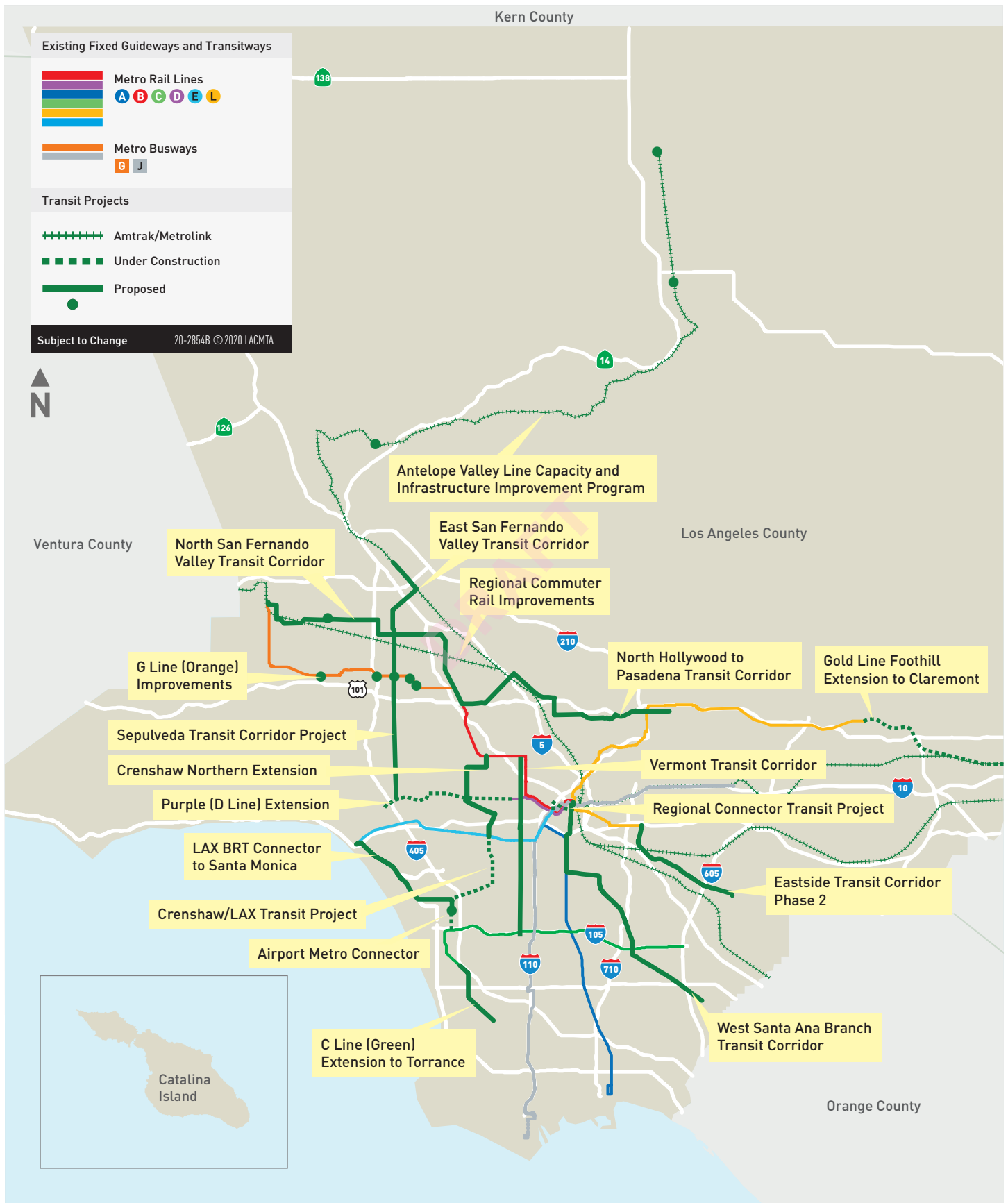
	\$ IN MILLIONS	ESTIMATED OPEN YEAR
Crenshaw/LAX Transit Project (LRT)	2,058	2021
Regional Connector Transit Project (LRT)	1,756	2022
D Line (Purple) Extension (HRT)		
Section 1 (Wilshire/Western to Wilshire/La Cienega)	2,779	2023
Section 2 (Wilshire/La Cienega to Century City/Constellation)	2,441	2026
Section 3 (Century City/Constellation to Westwood/VA Hospital)	3,224	2027
Airport Metro Connector/96th Street Station/Green Line Ext LAX	626	2024
North Hollywood to Pasadena Transit Corridor (BRT)	315	2024
North San Fernando Valley Transit Corridor (BRT)	207	2025
G Line (Orange) Improvements	314	2025
East San Fernando Valley Light Rail Project (LRT)	1,568	2027
Gold Line Foothill Extension to Claremont (LRT)	1,571	2028
Vermont Transit Corridor	524	2028
Antelope Valley Line Capacity and Infrastructure Improvement Program	221	2028
West Santa Ana Branch Transit Corridor (LRT)		
Phase 1	1,250	2028
Phase 2	5,061	2041
C Line (Green) Extension to Torrance (LRT)	1,167	2030
Sepulveda Transit Corridor (Mode TBD)		
Phase 2 – Valley to Westside	7,685	2033
Phase 3 – Westside to LAX	10,587	2057*
Eastside Extension Phase 2 Transit Corridor (1st Alignment)	4,409	2035
Crenshaw Northern Extension (LRT)	4,744	2047
Lincoln Bl (BRT)	220	2047
SF Valley Transportation Improvements	257	2050
C Line (Green) Eastern Extension to Norwalk (LRT)	1,891	2052*
G Line (Orange) Conversion to Light Rail	4,069	2057*
Historic Downtown Streetcar	581	2057*
Eastside Extension Phase 2 Transit Corridor (2nd Alignment)	8,707	2057*
Total	68,232	

L RTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final mode, alignments, and station locations to be confirmed during environmental processes. Estimated open year is a three-year range.

*Includes projects through 2057, (currently planned as the horizon year of measure M beyond the L RTP)

Figure 9

PLANNED TRANSIT PROJECTS



Final alignments to be identified during environmental processes. Map includes projects to be completed prior to 2050 (horizon year of the LRTP).

Priority Area 1: Better Transit

Strategy 1.1: Expand rail transportation countywide

Since the A Line (Blue) opened in 1990, Metro has undergone a tremendous expansion of our rail transportation system, growing to the second largest rail system in the U.S. Aided by Measure R and Measure M, Metro is continuing to build out the rail network at a rapid pace. There are four rail corridors in construction currently and many more in design and planning.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.1a. Complete Metro Rail projects in construction	●			●			
1.1b. Implement Metro Rail projects in design		●		●			
1.1c. Prioritize four “pillar” Rail projects (West Santa Ana Branch, Eastside Extension Ph. 2, C Line [Green] to Torrance, and Sepulveda Transit Corridor)		●					●
1.1d. Identify and plan future Metro rail expansion			●	●			●
1.1e. Complete Link Union Station (Link US) project		●		●			●
1.1f. Support Metrolink Southern California Optimized Rail Expansion (SCORE) Program	●						●

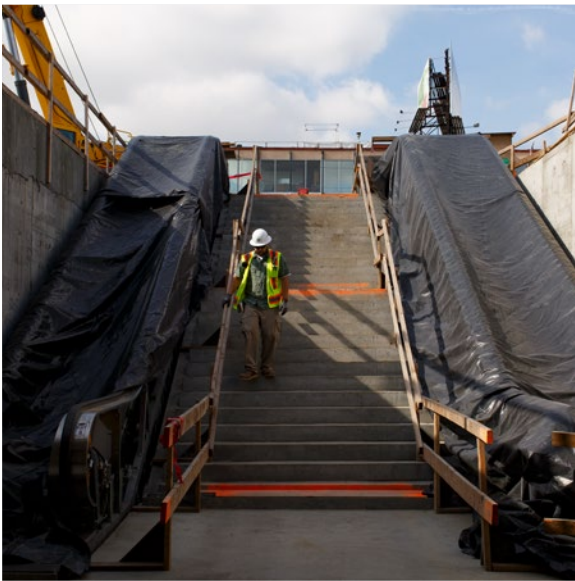
Strategy 1.2: Improve the frequency, speed and reliability of the bus and rail transit networks

Through signature efforts, including the NextGen Bus Plan and BRT Vision and Principles Study, Metro is redesigning our bus network to be faster, more frequent and reliable, as well as integrated with other LA County transit services. The first significant system update in 25 years, Metro’s NextGen Bus Plan aims to reverse the recent declining ridership trend.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.2a. Implement recommendations of the NextGen Bus Plan	●			●	●	●	●
1.2b. Improve average travel speeds for the bus network	●	●			●		●
1.2c. Implement systemwide bus all-door boarding	●	●			●		
1.2d. Implement systemwide transit signal priority for bus and rail transit	●	●			●		●
1.2e. Support complementary paratransit service	●				●		●
1.2f. Continue coordination between Metro and municipal bus operators	●						●
1.2g. Implement new Intelligent Transportation System to better match travel/transit demand and transit service		●			●		
1.2h. Implement Metro BRT projects in design		●		●			●
1.2i. Implement future BRT corridors identified in BRT Vision and Principles study			●	●			●
1.2j. Complete G Line (Orange) Improvements	●	●		●		●	●

Crenshaw/LAX Transit Project

The Crenshaw/LAX Transit Project, currently in construction, will extend from the existing E Line (Expo) at Crenshaw 8.5 miles southwest to the C Line (Green). Opening in 2021, the Crenshaw Line will add eight new stations, including one at the Automated People Mover currently under construction at the Los Angeles International Airport (LAX). Along the line, Destination Crenshaw, a 1.3-mile open-air museum will celebrate the African American culture and community of the corridor. The project will create pocket parks with culturally stamped sidewalks, lighting and landscaping improvements, business facades and public structures.



NextGen Bus Plan

In 2018, Metro began the process of reimagining our bus system to better meet the needs of current and future riders. The proposed plan, recently released for public comment, proposes improvements, which would: double the number of frequent Metro bus lines; provide more than 80% of current bus riders with 15-minute or better frequency; create an all-day, every day service; ensure a one quarter-mile walk to a bus stop for 99% of current riders; and create a more comfortable and safer waiting environment. The “Transit First” approach would include capital projects that speed up buses (bus lanes and traffic signal priority, etc.), make bus stops more comfortable, expand all-door boarding and add even more frequent services, among other improvements.



Bus-Only Lanes

In order to make transit truly competitive with driving, Metro is working with local agencies to convert key sections of curb lanes to bus-only lanes. Two recent examples of bus-only lanes include the Wilshire Boulevard and Flower Street bus lanes. Metro’s 720 Rapid bus operates on dedicated curbside bus lanes along Wilshire Boulevard from the western edge of downtown Los Angeles to the eastern edge of the City of Santa Monica (excluding Beverly Hills). The Flower Street bus lane is a pilot, weekday evening rush hour (3–7pm) bus-only lane along Flower Street between 7th Street and Adams Boulevard.

Strategy 1.3: Enable easier fare payment

A convenient, integrated fare payment that is accessible to all residents is essential for a world-class transportation system. Metro is expanding payment options in partnership with regional operators for a seamless payment experience. While TAP is already integrated across many services, customers will soon be able to pay for their fare through a mobile app.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.3a. Integrate payment for third-party mobility services		●					●
1.3b. Expand TAP integration with all regional partners	●						●
1.3c. Develop TAP mobile app		●					●

Strategy 1.4: Enhance station areas

To deliver excellent transit experiences, Metro is committed to improving stations and surrounding areas to be safe, smart, clean and green.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.4a. Consistently Implement Systemwide Station Design for attractive, well-integrated, sustainable, and maintainable station environments	●			●			
1.4b. Improve customer information, including the availability of real-time arrival information, wayfinding, and consistent signage	●				●		
1.4c. Increase shading and cooling at transit stations	●			●		●	●
1.4d. Improve bus shelter amenities in partnership with local jurisdictions	●			●		●	●
1.4e. Implement Metro's Supportive Transit Parking Program Master Plan	●			●			
1.4f. Optimize station safety and security, including lighting levels, spacious uncluttered station environments, and effective monitoring of station area	●				●		

Strategy 1.5: Explore new service delivery

With new and competing transportation options, Metro must embrace new forms of mobility to attract and retain riders. In partnership with Via, Metro has implemented a Mobility on Demand pilot program with free, accessible and on-demand rides. The agency will also operate its own on-demand service with Metro employees behind the wheel called Metro Micro, which will serve six service areas in 2021 with the goal of capturing short trips around high transit ridership zones and complementing the existing fixed route system.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.5a. Implement Mobility on Demand (MOD) partnership with Via	●						●
1.5b. Implement Metro Micro on-demand transit service	●				●		●
1.5c. Launch Mobility as a Service (MaaS) platform		●					●

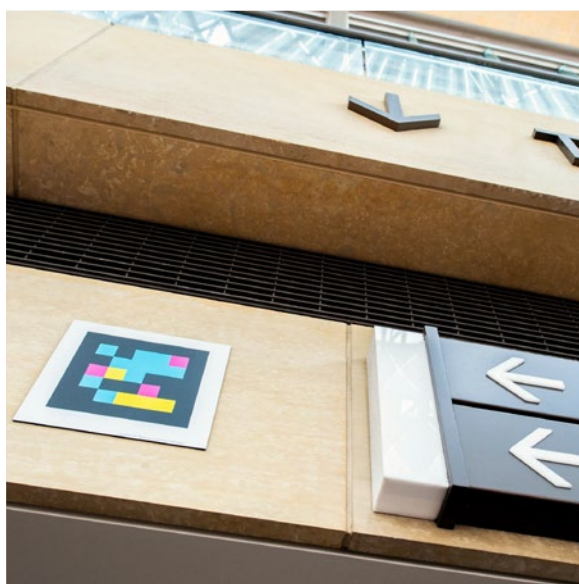
Strategy 1.6: Enhance customer experience

The new Customer Experience program goal is to minimize pain points, maximize smooth, uneventful experiences, and find opportunity for occasional surprise and delight. We are creating a system that is modern and intuitive, using design, technology and policies to address the unique needs of our customers at every stage of their journey.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.6a. Implement practices from Transfer Design Guide	●			●	●		●
1.6b. Support passengers with disabilities, including ensuring universal accessibility of stations	●				●		●
1.6c. Develop Gender Action Plan to address unique needs of women	●				●		
1.6d. Ensure transit experience is clean and comfortable	●					●	
1.6e. Implement Facilities Assessments to maintain a state of good repair	●					●	

Accessible Wayfinding

Metro is testing wayfinding strategies for the visually impaired so they can more easily navigate the transit system. This technology, NaviLens, allows users to access arrival and departure information and descriptions of how to get to different platforms at Union Station from a mobile application. The pilot deployment of NaviLens technology has allowed visually impaired riders to feel more comfortable traveling alone and improved the experience for passengers with disabilities.



How Women Travel

Metro was the first transit agency in the nation to study and report on women’s unique mobility needs. This 2019 report found that women take more Metro trips, ride public transit more often and prioritize safety more often than men. Metro is taking action on these findings by developing a Gender Action Plan to improve the rider experience for women, including rethinking communications, fare policies, station design and service hours.



Strategy 1.7: Enhance transportation system security and build public trust

Customer safety is a top priority for Metro. We must continue to address safety concerns, while at the same time, build trust between our riders, communities and partners, public safety professionals and Metro employees.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.7a. Introduce the Transit Homeless Action Plan 2.0	●				●		●
1.7b. Align the Multi-Agency Policing Plan to include Metro's system expansion plans	●				●		●
1.7c. Launch Metro's new and improved Sexual Harassment Plan	●				●		●
1.7d. Develop new overall security-enhancing measures for the entire system to include environmental station design	●				●		
1.7e. Update the Security & Emergency Preparedness Plan and Metro Training		●			●		
1.7f. Open and operate the Emergency Security Operations Center			●	●	●		
1.7g. Enhance Emergency Management, Continuity of Operations, and Emergency Operations Procedures to national certification levels	●						●

Transit Homeless Action Plan

In February 2017, Metro released its first Transit Homeless Action Plan that focused on improving the passenger experience through coordinated and comprehensive outreach to homeless individuals throughout Metro's transit system. The Homeless Action Plan is focused on four implementation areas including research, education, coordination, and outreach. Research is intended to help Metro understand homelessness in the transit system while education is focused on increasing understanding among Metro staff and passengers about how to respond when encountering individuals believed to be homeless. Metro is one of several stakeholders involved in the delivery of services to homeless populations in LA County; a key component of Metro's Homeless Outreach Plan is the City, County, Community (C3) outreach teams that Metro deploys to make contact with individuals believed to be homeless and link them to services and permanent housing solutions.



Strategy 1.8: Optimize sustainable and resilient operations and maintenance of fleet, infrastructure and facilities

Better transit includes sustainable and efficient transit systems. Metro employs life cycle and efficiency considerations for buses, maintenance yards and resource acquisition.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
1.8a. Implement Transit Asset Management Plan	●					●	
1.8b. Develop and implement an agency-wide Sustainable Acquisition Program	●				●		
1.8c. Integrate resource conservation, life cycle and efficiency considerations into Metro's operational and construction policies, Standard Operating Procedures (SOPs) and specifications	●					●	●
1.8d. Develop and implement materials, construction and operations-related training for Metro staff, partners and community to facilitate a culture of sustainability and resiliency	●					●	●
1.8e. Transition to zero emission buses systemwide	●	●			●		
1.8f. Modify the B Line (Red)/D Line (Purple) maintenance yard	●			●			



More transit trips mean more opportunity.

Transit improvements in the 2020 LRTP, including the expansion of Metro Rail and Bus Rapid Transit, will help add more than 1,000,000 daily transit trips, an increase of 81%. For commute trips, this has the potential to increase transit mode share for daily trips to and from work from 8.8% to 14.7%.

■ **Future Trend (2047)**
■ **With 2020 LRTP (2047)**

Figure 10
Daily Transit Trips

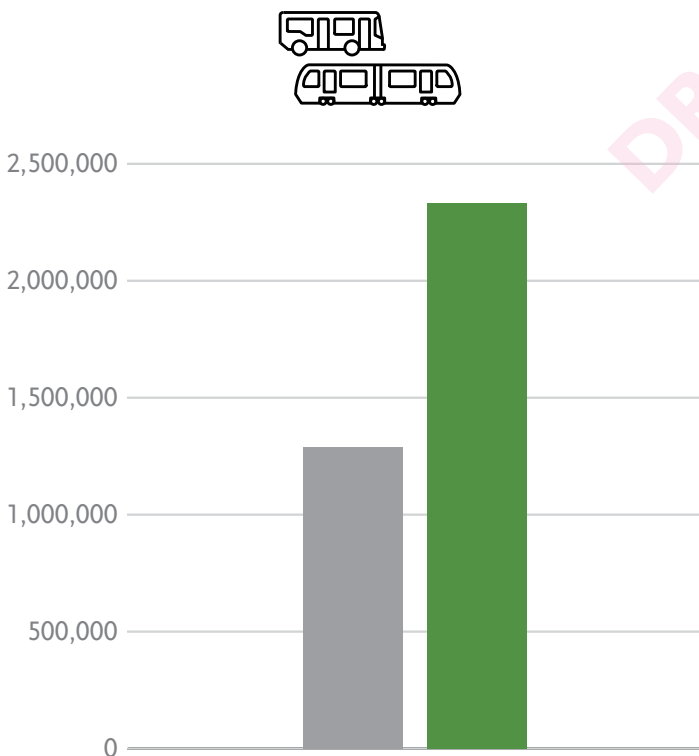
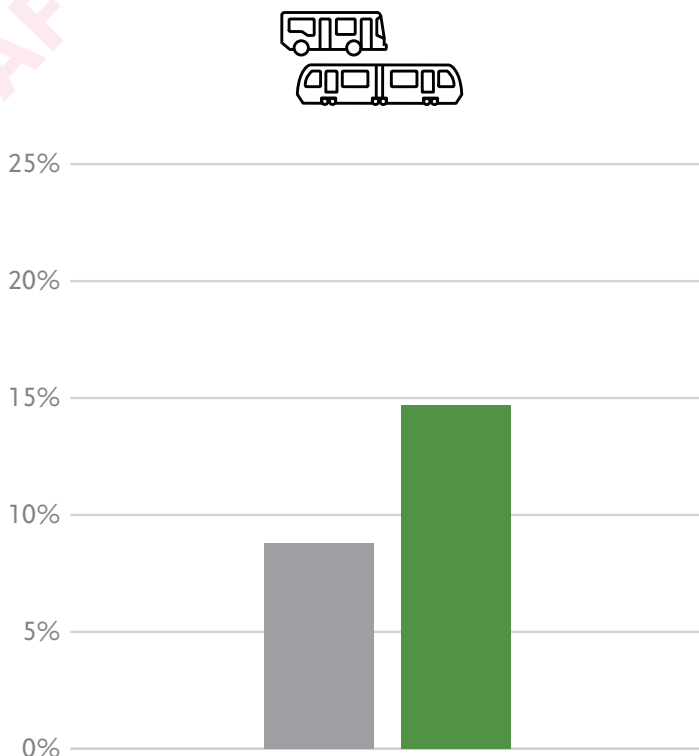


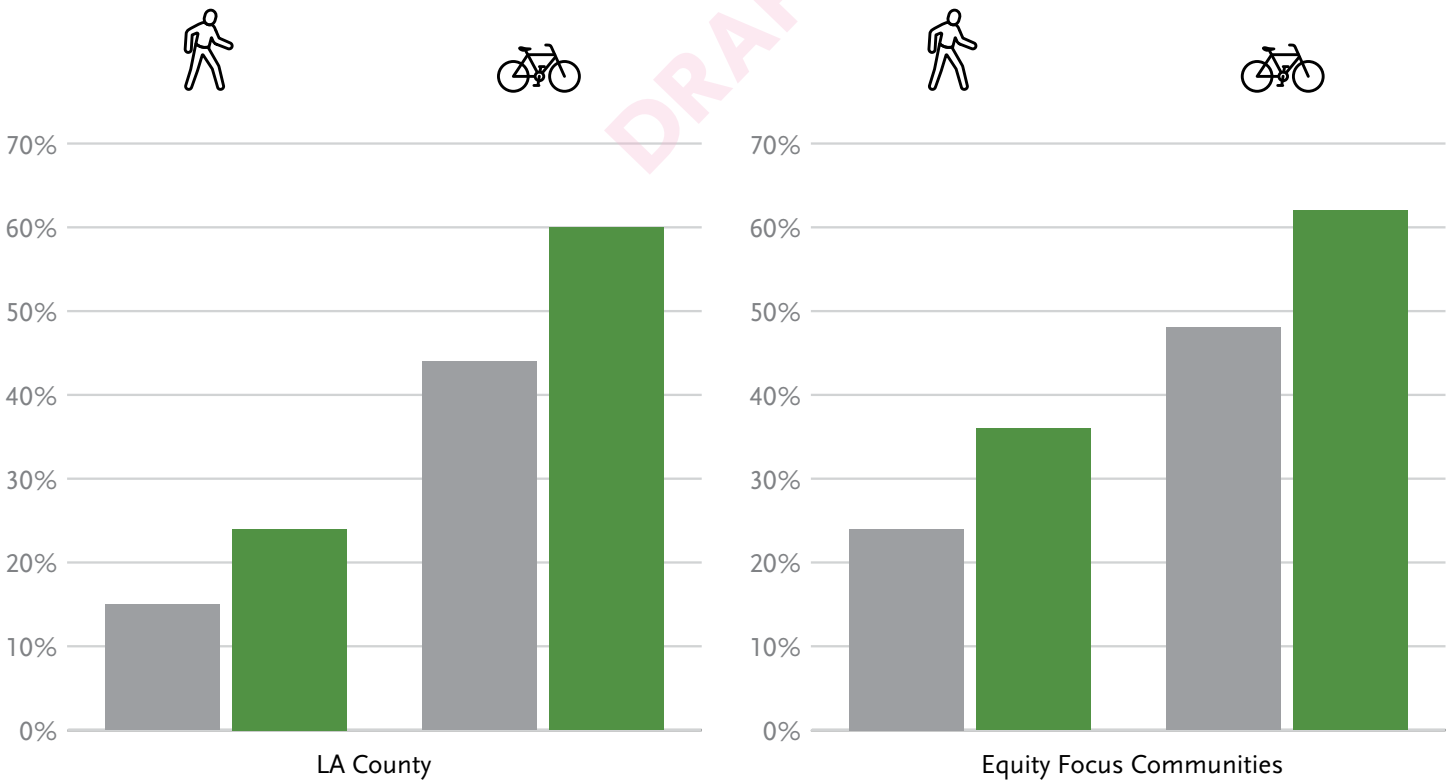
Figure 11
Transit Mode Share for Commute Trips



Better transit means access to fast, frequent and reliable public transportation. Through the expansion of rail and bus rapid transit, the 2020 LRTP will increase the percentage of households within a 10-minute walk and roll of fixed guideway transit. Countywide, the percentage of households will increase by 133% (walk) and 38% (roll). In Equity Focus Communities (see page 66), the percentage of households increase by 86% and 18% for walk and roll, respectively.

Figure 12

Percent of Households within a 10-minute Walk or Roll of Fixed Guideway Transit



**OUR
NEXT
LA* is**
less congestion.





Less congestion means options to bypass traffic, and improved travel times for you. We do this by using technology and policies to manage traffic flow, respond to incidents and increase the efficiency of the roadway transportation system.

We're investing in our roadways and the communities that use them.

Metro, in partnership with the California Department of Transportation (Caltrans), who owns and maintains the freeway system, advances the planning, environmental clearance, design and construction of major capital projects such as carpool lanes, freeway widening, interchange improvements, auxiliary lanes, freeway ramp improvements and other freeway capacity and operational improvement projects. Metro also works with local agencies to implement smaller scale improvements such as arterial widenings, intersection upgrades, ramp metering, traffic signal synchronization, integrated corridor management and intelligent transportation systems (ITS) solutions.

The 2020 LRTP includes more than **\$105 billion** in roadway investments, including operations and maintenance, active transportation and multi-modal projects, support for local cities and subregions, as well as almost **\$27 billion** for major highway investments.

Metro ExpressLanes

ExpressLanes are dynamically priced toll lanes where single occupant vehicles (SOVs) are given the option to pay a variable fee to use the lanes and avoid delay, while carpoolers, vanpoolers and buses are permitted to use the lanes at no charge. In 2012, the carpool lanes on I-110 and I-10 were converted to ExpressLanes, where prices change based on real-time traffic demand on the facility to ensure vehicles travel at least 45 miles per hour in the toll lanes. This helps optimize the traffic flow in the ExpressLanes and provides a more reliable option when traffic in the other lanes slows down. The I-110 and I-10 ExpressLanes have saved commuters, on average, six minutes during peak morning commutes and has led to increased bus ridership on express bus routes that use the lanes. The ExpressLanes Strategic Network is illustrated in Figure 13.

Highway Investment

Figure 14

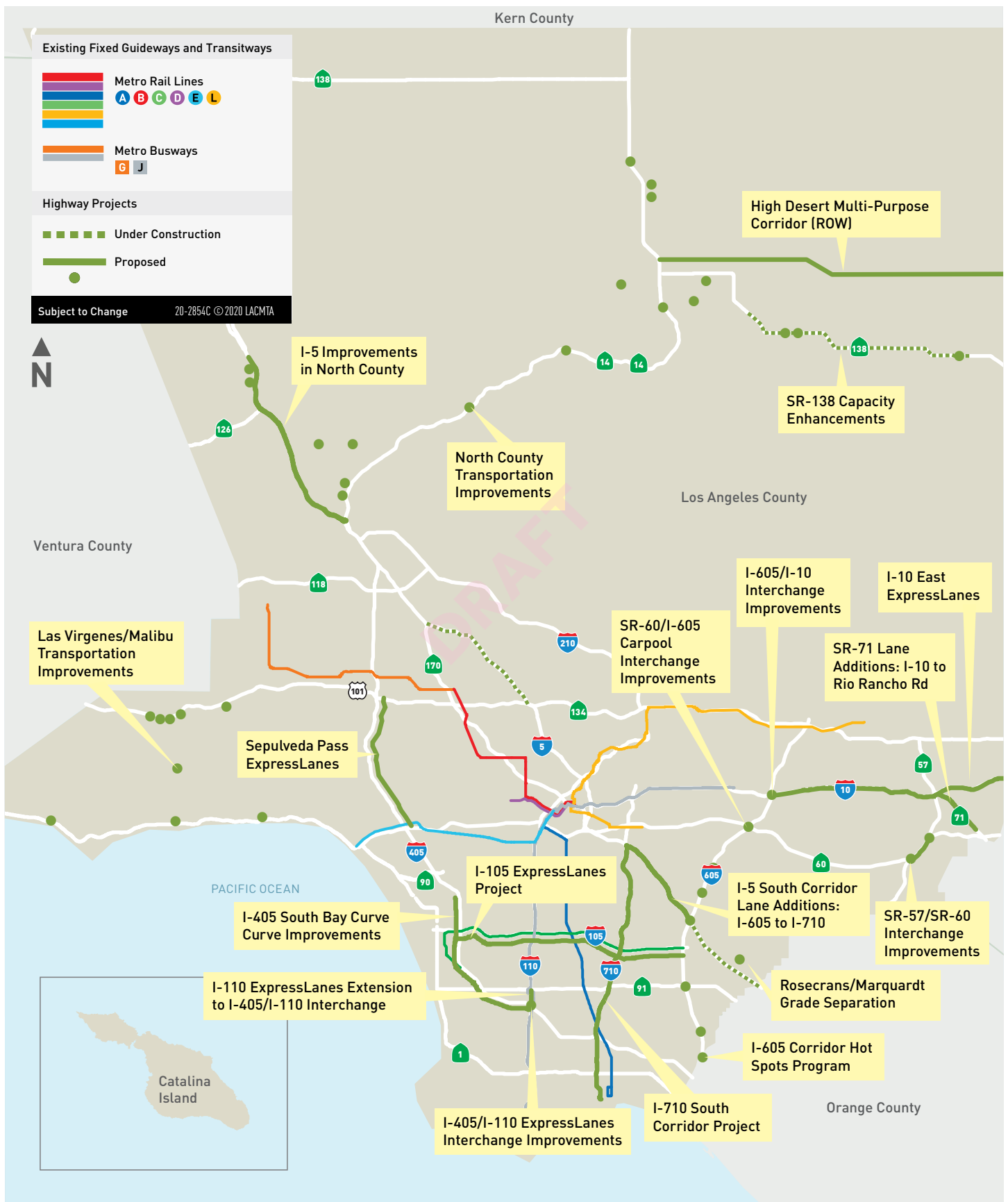
Major Highway Projects

	\$ IN MILLIONS	ESTIMATED OPEN YEAR
I-5 Capacity Enhancement (I-605 to Orange County Line)	1,410	2023
I-5 North Carpool Lanes – SR-134 to SR-170	637	2023
Rosecrans/Marquardt Grade Separation	155	2024
Alameda Corridor East Grade Separations Phase II	1,685	2024
SR-71 Gap from I-10 to Rio Rancho Rd	379	2026
I-5 North Capacity Enhancements (SR-14 to Parker Rd)	679	2026
Highway Operational Improvements in Las Virgenes/Malibu subregion	175	2026
Sepulveda Pass Transit Corridor (Phase 1 – ExpressLanes)	311	2027
I-105 ExpressLanes from I-405 to I-605	530	2027
SR-57/SR-60 Interchange Improvements	422	2027
I-10 ExpressLanes from I-605 to LA/ San Bernardino Line	197	2028
SR-138 Capacity Enhancements	200	2028
I-605 Corridor "Hot Spot" Interchange Improvements	2,639	2030
Highway Operational Improvements in Arroyo Verdugo subregion	170	2030
High Desert Multi-Purpose Corridor	393	2034
I-405, I-110, I-105 and SR-91 Ramp and Interchange Improvements (South Bay)	1,413	2039
Countywide Soundwall Construction	590	2040
I-710 South Corridor Project (Phase 1)	5,697	2040
I-710 South Corridor Project (Phase 2)	1,512	2041
I-5 Corridor Improvements (I-605 to I-710)	2,036	2042
I-405/I-110 Int. HOV Connect Ramps & Interchange Improvements	504	2044
I-110 ExpressLanes Ext South to I-405/I-110 Interchange	599	2046
I-605/I-10 Interchange	1,287	2047
SR 60/I-605 Interchange HOV Direct Connectors	1,055	2047
I-405 South Bay Curve Improvements	883	2047
SR-710 North Corridor Mobility Improvement Projects	1,086	Varies
Total	26,644	

L RTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final alignments and limits to be determined during environmental processes.

Figure 15

PLANNED HIGHWAY PROJECTS



Final alignments to be included during environmental processes.

Priority Area 2: Less Congestion

Strategy 2.1: Implement operational improvements with technology

By implementing technology improvements, Metro aims to manage congestion, improve safety and provide more reliable travel times for passenger and freight vehicles. Metro embraces technology to advance operational improvements, including through the Regional Integration of Intelligent Transportation Systems (RIITS) and the Countywide Signal Priority Program.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.1a. Implement integrated corridor management (ICM) projects, including the I-210 Connected Corridors project		●			●		●
2.1b. Integrate freeway Intelligent Transportation Systems (ITS) strategies	●				●		●
2.1c. Implement arterial ITS programs, including Countywide Signal Priority Program and traffic signal synchronization	●				●		●
2.1d. Prepare for connected and autonomous vehicles (CAV) and implement other smart highway strategies			●		●		●

Strategy 2.2: Improve traveler information

Real time, accurate travel information is an importance resource for managing roadway congestion. Metro plays a vital role as a regional agency to collect and share information with local partners and residents.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.2a. Continue and improve 511 system	●				●		●
2.2b. Share transportation information with regional partners	●						●

Strategy 2.3: Expand the managed lane network

Metro understands that we cannot add new lanes to most freeways, so to improve traffic flow, we must manage our system better. Managed lanes, such as high-occupant vehicle (HOV) lanes and high-occupancy toll (HOT) lanes, help optimize the traffic flow in one or two lanes, thereby increasing the capacity of the whole corridor. HOT lanes, called ExpressLanes in LA County, allow carpoolers to travel for free, while allowing solo drivers to pay a dynamically priced toll.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.3a. Extend the high-occupancy vehicle network	●			●			●
2.3b. Complete the Tier 1 ExpressLanes network	●	●		●	●		●
2.3c. Complete HOV and ExpressLanes direct connectors (I-105/I-605; I-110/I-405; I-605/SR-60)		●		●			●
2.3d. Complete the Tier 2 ExpressLanes network			●	●	●		●
2.3e. Complete the Tier 3 ExpressLanes network			●	●	●		●
2.3f. Evaluate financial policies to expand the ExpressLanes system using revenues generated from the existing network	●				●		●

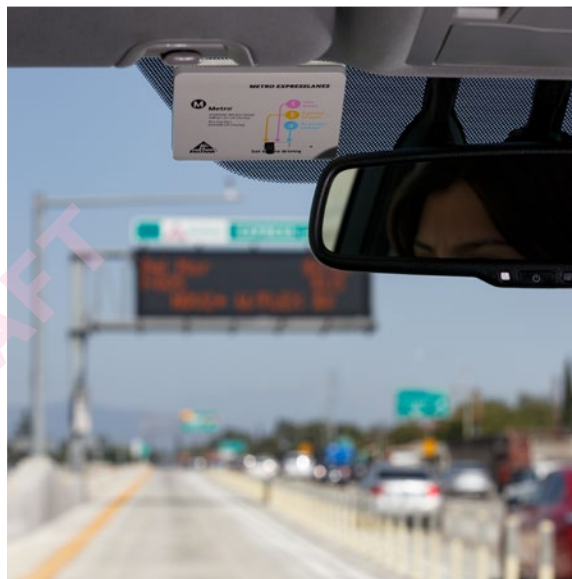
Integrated Corridor Management

Caltrans, Metro, and local agencies are piloting the I-210 Connected Corridor project that includes Integrated Corridor Management (ICM) strategies along I-210 in the San Gabriel Valley. ICM is an Intelligent Transportation Systems (ITS) strategy to manage non-recurring congestion along a corridor by utilizing advanced technologies and systems. ICM components include active monitoring of all transportation modes and facilities within the corridor, on and off the freeway, including ramp metering, traffic signal coordination, incident traffic management, advanced traveler information system, and other advanced technologies and techniques.



ExpressLanes Expansion

By using dynamic pricing based on the current usage level, traffic flow in the ExpressLanes is continuously managed to maintain speed and flow, providing a more reliable option. The 2017 Countywide ExpressLanes Strategic Plan established a vision for a network of ExpressLanes to increase mobility throughout LA County. Targeted corridors have been identified by tiers, with near-term potential (Tier 1) within five to 10 years, mid-term potential (Tier 2) within 15 years, and longer-term potential (Tier 3) within 25 years. The ExpressLanes network expansion (as illustrated in Figure 13) is predicated upon the assumption that revenues from each operating segment will be leveraged to develop other portions of the network.



Regional Integration of ITS (RIITS)

RIITS is a program that enables the efficient compilation, management and exchange of transportation information. RIITS integrates and presents transportation information via data feeds to allow government agencies to exchange data with each other, and provides private companies access to the data to share with the public. RIITS consists of a physical network, operational system and administrative processes in support of real-time exchange of information among agencies in Southern California. Information is currently exchanged with Caltrans Districts 7, 8 and 12, Los Angeles Department of Transportation, California Highway Patrol (CHP), Metro, Foothill Transit, LA County Department of Public Works and others.

Strategy 2.4: Minimize impact of roadway incidents

Metro aims to quickly and safely clear roadway incidents to improve traffic flow and lessen congestion. The Kenneth Hahn Callbox System and Metro Freeway Service Patrol work together to allow for quick response and clearance of stalled vehicles on the freeway.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.4a. Continue and expand Metro Freeway Service Patrol	●				●		
2.4b. Continue the Kenneth Hahn Callbox System	●					●	●

Strategy 2.5: Support efficient and sustainable goods movement

The LA County Goods Movement Strategic Plan, under development with stakeholders across the county, will develop a comprehensive approach that balances various goals, including the efficient and effective flow of goods to support economic and environmental sustainability and prosperity.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.5a. Implement LA County Goods Movement Strategic Plan			●		●		●
2.5b. Develop curbside mobility improvements in partnership with regional agencies	●				●		●
2.5c. Invest in multi-modal freight improvement options (rail investment and clean truck program)				●			●
2.5d. Improve freight traveler information sharing	●				●		●

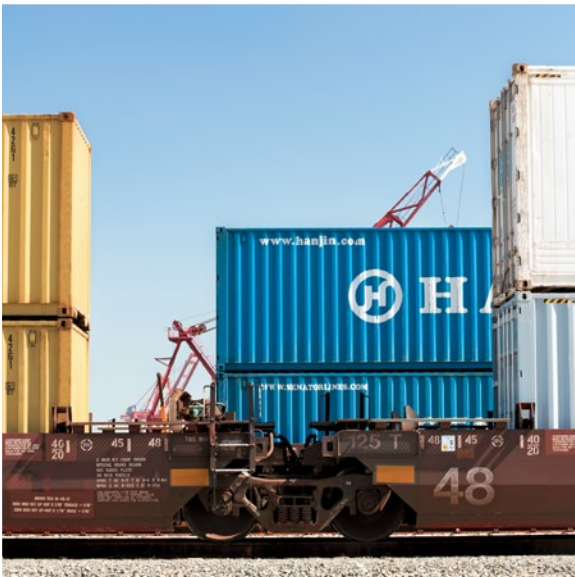
Strategy 2.6: Enhance regional circulation

The transportation system is a network that requires systematic approaches to address regional circulation issues. Metro is exploring regulatory and pricing mechanisms, as well as the expansion of current programs to manage demand and enhance circulation.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.6a. Implement New Mobility Regional Roadmap, a framework for building a countywide coalition to collectively determine the best path forward for managing new mobility	●				●		●
2.6b. Complete Traffic Reduction Study that will explore how congestion pricing and additional transportation options could work together to reduce traffic congestion and increase mobility	●				●		●
2.6c. Recommend a pilot traffic reduction program after completion of the Traffic Reduction Study			●	●	●		●
2.6d. Continue to expand Metro Rideshare/Vanpool and Shared Mobility Program	●	●			●		●
2.6e. Support transportation demand management (TDM) programs and commute-trip reduction initiatives, including telecommuting	●				●		●

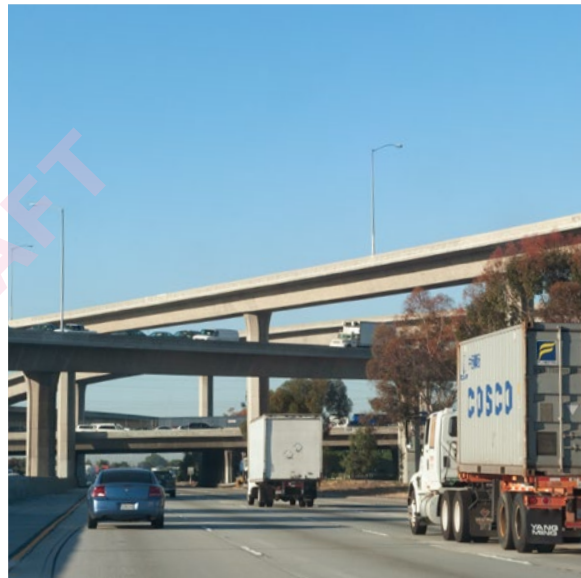
Goods Movement Strategic Plan

Safe and efficient goods movement through LA County supports a vibrant quality of life for its residents and the long-term economic health and competitiveness of the region. A culture of innovation, adoption of technology such as ITS and DrayFlex, and strategic investment in our multimodal goods movement transportation system will improve the movement of goods through the major seaports, the Ports of Long Beach and Los Angeles, airports, and intermodal facilities to our homes and businesses. Developing sustainability and equity strategies to overcome a history of inequitable impacts such as air pollution, displacement, and lack of investment related to freight while developing stronger skillsets and workforce opportunities for disadvantaged communities will be vital to implement LA County's Goods Movement Strategic Plan and its Sustainable Freight Competitiveness Framework.



Traffic Reduction Study

Metro is conducting a Traffic Reduction Study (formerly called the Congestion Pricing Feasibility Study), to determine: if a traffic reduction program would be feasible and successful in LA County; where and how a pilot program with congestion pricing and complementary transportation options could achieve the project goals of reducing traffic congestion; and identify willing local partners to collaborate with on a potential pilot program. Metro will engage stakeholders and the public throughout this process. Through engagement with stakeholders, the study will explore how to affect additional positive outcomes that will benefit residents, workers, and businesses in LA County, including improving the economy, supporting environmental and economic justice, and improving health and safety.



Strategy 2.7: Enhance the operation of the state highway system

Metro continues to address key bottlenecks in LA County, some of the most congested in the US. Metro works with Caltrans and regional partners to plan, build and maintain projects that address highway capacity and operational efficiency.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.7a. Work with Caltrans and local agencies to construct capacity-improving projects to address freeway bottlenecks	●			●			●
2.7b. Work with Caltrans and local agencies on a system approach to create a roadway network comprising the state highways and local arterials to improve throughput and alleviate traffic congestion	●				●		●

Strategy 2.8: Improve the resiliency of Metro's transportation system

A resilient Metro system is prepared and able to mitigate future hazards that would otherwise interfere with operations, disrupt service and endanger passengers. Metro addresses system resiliency with risk assessments, decision making that considers hazards, and climate adaptation plans and policies.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
2.8a. Conduct and maintain a multi-hazard risk assessment to understand vulnerabilities of the transportation system	●					●	
2.8b. Incorporate considerations for all hazards into Metro decision-making about capital planning, procurement, asset management and operations	●					●	
2.8c. Regularly update resilience and climate adaptation plans and policies to address changing hazards and risks to system service	●				●		
2.8d. Implement hazard mitigation and climate adaptation strategies to increase transportation system resilience and passenger safety	●				●		



Our congestion reduction plan means less delays for drivers.

The congestion reducing strategies included in the 2020 LRTP will lead to a reduction in vehicle miles traveled and vehicle hours of delay per capita. Compared to the future trend, the LRTP will lead to a 31% reduction in delay and a 9% reduction in vehicle miles traveled, a key metric for tracking the usage of personal vehicles.

- Future Trend (2047)**
- With 2020 LRTP (2047)**

Figure 16

Annual Vehicle Miles Traveled Per Capita

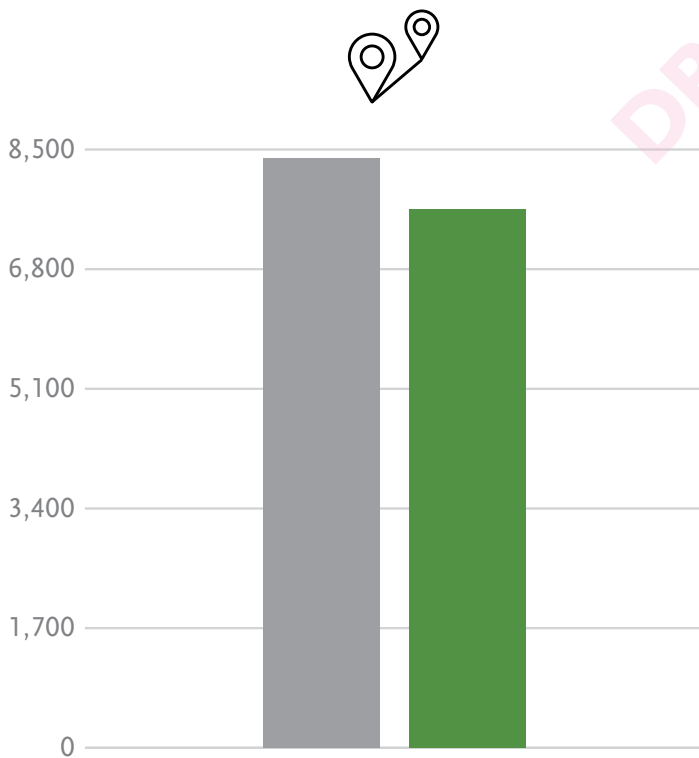
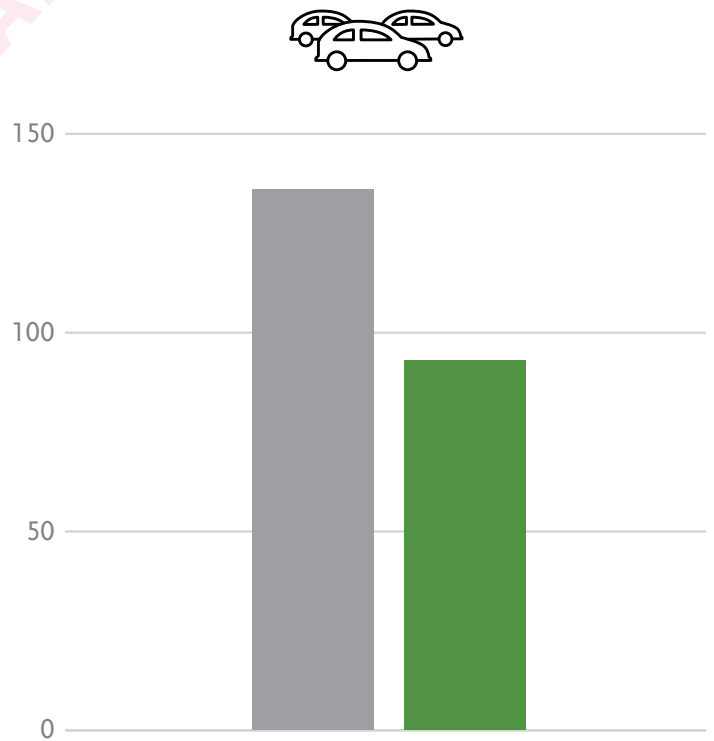


Figure 17

Annual Vehicle Hours of Delay Per Capita

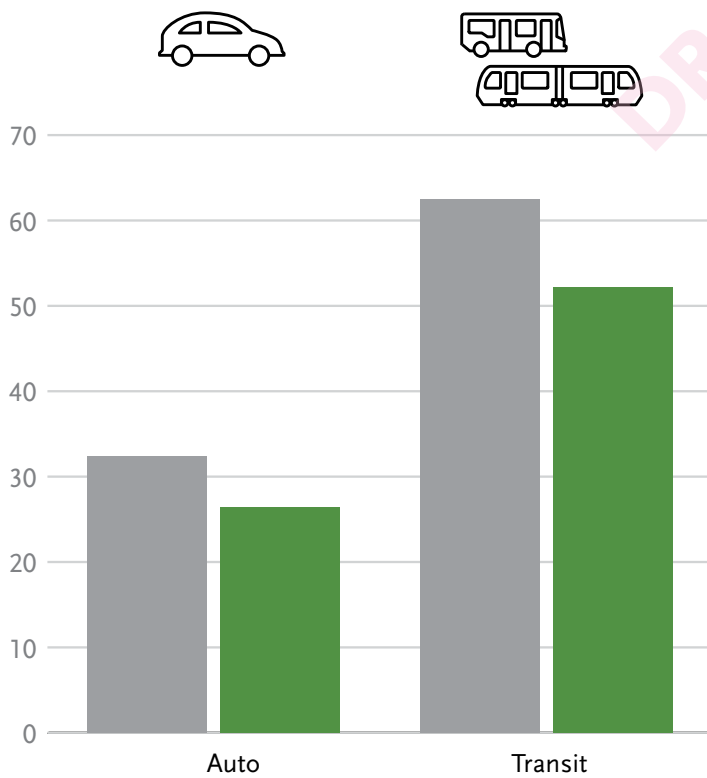




Less congestion means better travel times for commuters. Compared to the future trend, the 2020 LRTP is projected to reduce average morning travel times by 19% for automobiles and 9% for transit trips.

Figure 18

Average Morning Travel Time (minutes)



OUR
NEXT
LA* is

complete streets.



Complete streets create a comprehensive, integrated network that utilizes infrastructure and design to allow safe and convenient travel along streets for all users. This means better connectivity and integration of all transportation modes, including active transportation, private vehicles, transit and commercial deliveries. Complete streets provide safer crossing and roadway facilities for bicyclists and pedestrians, have more greenery and fewer potholes, and help create a more environmentally sustainable transportation system.



We're investing in better options for bikes and pedestrians.

The 2020 LRTP includes close to \$7 billion in funding for active transportation projects, including major facilities and bicycle and pedestrian programs at the city level. There are several major multi-use active transportation facilities funded in the LRTP, including:

> **Rail to Rail Active Transportation Corridor Segment A**

The Rail to Rail Active Transportation Corridor is a 5.6 mile multi-use path connecting the Fairview Heights Station of the soon-to-be-open Crenshaw Line in Inglewood to the Slauson A (Blue) Line station in South Los Angeles.

> **LA River Path – Central LA**

The Los Angeles River Path project is an eight-mile bicycle and pedestrian path gap closure between Elysian Valley and Maywood, through downtown Los Angeles.

> **LA River Path – San Fernando Valley**

To complete the full LA River Path and Greenway Trail, the LA River Path will connect the San Fernando Valley to the existing LA River Path near Griffith Park. This 13-mile path will help create a 52-mile continuous active transportation corridor from Long Beach to Warner Center, and be a cornerstone of the efforts to revitalize the LA River.

Active Transportation

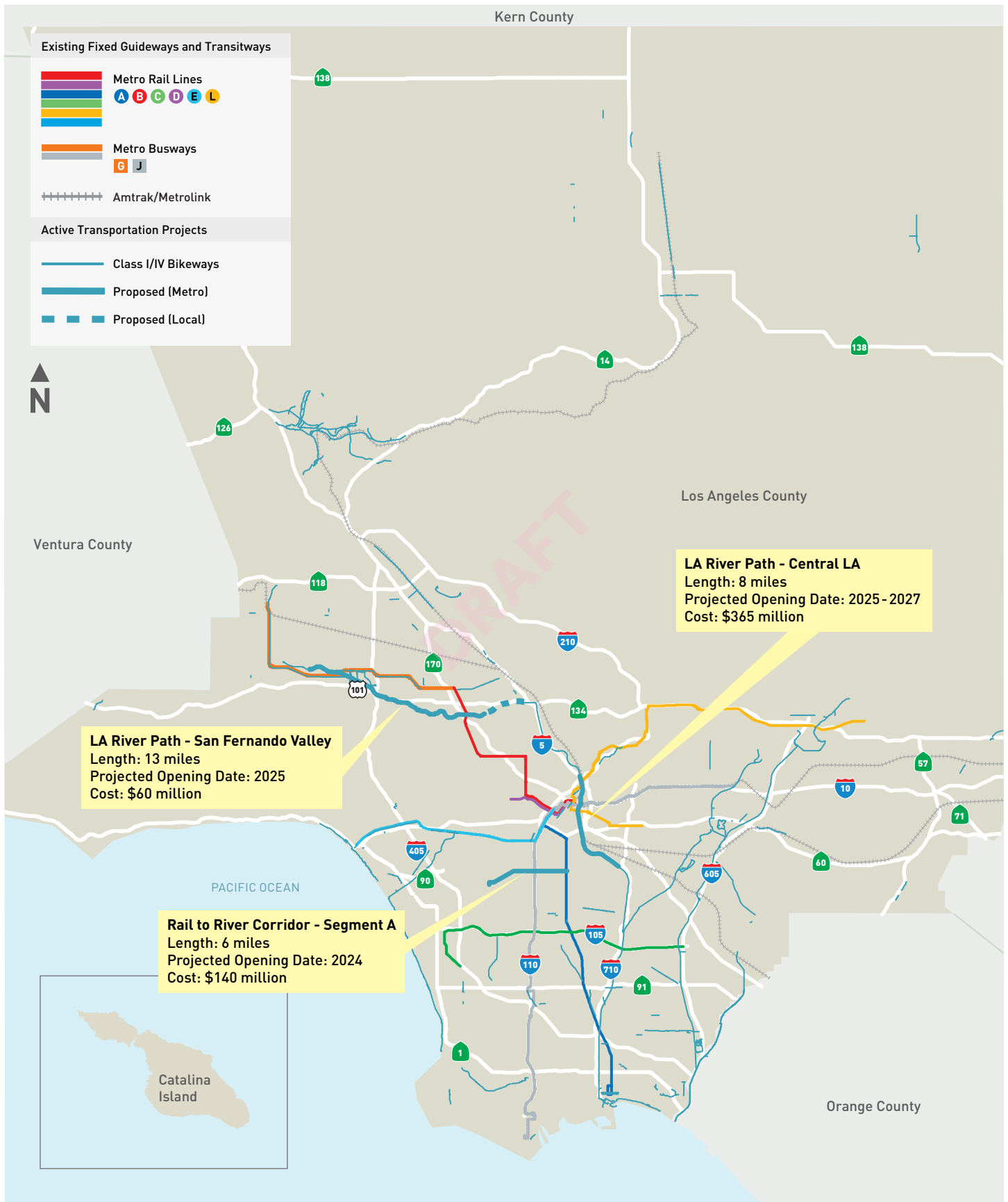
In addition to the major capital commitments, Metro supports active transportation to promote walking, cycling and rolling through a series of programs, policies and investment strategies. Three important foundational documents include Metro's Complete Streets Policy (2014), First/Last Mile (FLM) Strategic Plan (2014), and Active Transportation Strategic Plan (2016).

Metro is investing more than \$850 million in Active Transportation grants, in alignment with Metro policies and plans. This demonstrates Metro's ongoing commitment to enhance access to transit stations, create safer streets and develop a regional network to improve mobility for people who walk, bike and take transit. Programs that support these policies include Metro's Bike Share program, our Bike Parking Program, and the First/Last Mile Program.

Finally, the majority of the planning and support for active transportation and complete streets projects occurs at the local level. Metro provides funding for local projects and partners with local jurisdictions to support and advance projects that further our regional priorities.

Figure 19

ACTIVE TRANSPORTATION CORRIDOR PROJECTS



Final alignments to be identified during environmental processes.

Priority Area 3: Complete Streets

Strategy 3.1: Improve safety for all users

Metro's approach to safety is multi-pronged. The Complete Streets Policy is centered around redesigning streets with safety for all users as the top priority. Metro's vision is to prioritize safety in all projects with an overarching goal of reducing injuries and fatalities.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.1a. Implement Complete Streets Policy	●				●		●
3.1b. Implement Bicycle Education Safety Team program	●					●	
3.1c. Prioritize and incorporate safety improvements in all projects to reduce injuries and fatalities	●			●	●		●

Strategy 3.2: Enhance access to transit stations

Metro strives to enhance transit stations by implementing first/last mile projects and strategies that improve multi-modal access around stations.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.2a. Implement First/Last Mile Program, including Board policy directives	●	●	●		●		●
3.2b. Implement integrated improvement plans for existing intermodal station facilities, including the Connect Union Station Action Plan	●		●	●			●
3.2c. Implement Micro Mobility Vehicles Program	●				●		●
3.2d. Provide secure bike parking options at transit stations	●			●			

Strategy 3.3: Establish active transportation improvements as integral elements of the transportation system

Active transportation refers to any non-motorized mode of travel, including walking, biking and rolling. Safe and effective active transportation infrastructure, including addressing physical barriers like freeway, rail, and river crossings, is critical to Metro because these modes of travel provide connectivity to our transit hubs, promote public health and improve air quality.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.3a. Complete LA River Path Project	●	●		●			●
3.3b. Complete Rail to River Active Transportation Corridor		●	●	●			●
3.3c. Implement recommendations of Active Transportation Strategic Plan		●	●		●		
3.3d. Support Metro Bike Share and local bike share programs expansion	●				●		●

Complete Streets Policy

Metro's Complete Streets Policy views transportation improvements as opportunities to create safe, accessible streets for all users, including but not limited to pedestrians, public transit users, bicyclists, people with disabilities, seniors, children, motorists and movers of commercial goods. Through incremental changes in capital projects and regular maintenance and operations improvements, the street network will gradually become safer and more accessible for travelers of all ages and abilities. In partnership with state, regional and local efforts, this policy will create a more complete and integrated transportation network for all modes of travel in LA County.

LA River Path

The Los Angeles River Path project is a proposed eight-mile bicycle and pedestrian path extension between Elysian Valley and Maywood, through downtown Los Angeles and the City of Vernon. The project aims to create a safe, accessible path for people walking, bicycling and rolling to get to destinations that matter in their daily lives. The project will close an existing gap in the Los Angeles River Bike Path and Greenway Trail, providing a seamless 52-mile bicycle and pedestrian route from the San Fernando Valley to Long Beach. Completing the LA River Path will enhance recreation, livability, regional connectivity and provide an outstanding user experience, access to opportunity and separation from vehicular traffic.



First/Last Mile Strategic Plan

Metro developed a First/Last Mile Strategic Plan to address the challenge that riders face getting from their home to transit and from transit to their final destination. FLM strategies extend station areas, improve safety and enhance the visual aesthetic. The plan identifies barriers and potential improvements for the FLM portions of a transit trip. It provides a systematic yet adaptable vision for implementing FLM strategies, such as:

- > Infrastructure for walking, rolling and biking (e.g., bike lanes, bike parking, sidewalks and crosswalks)
- > Shared use services (e.g., bike share and car share)
- > Facilities for making modal connections (e.g., kiss and ride and bus/rail interface)
- > Signage and wayfinding, and information and technology that eases travel (e.g., information kiosks and mobile apps).



Strategy 3.4: Maintain a state of good repair on roadways

A safe and reliable transportation system requires that assets are maintained in a state of good repair. Metro partners and funds highway projects that upgrade or replace roadway elements to improve system safety.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.4a. Fund highway and arterial projects with state of good repair elements	●						●
3.4b. For more efficient investment, work with Caltrans to combine state highway repair and maintenance projects with Metro-funded capacity and operational enhancements	●					●	●

Strategy 3.5: Demonstrate sustainable design and construction practices

Metro strives to incorporate sustainable design and construction practices that reduce the impact of system growth. Metro aims to expand and improve the policy and related sustainability standards, while pursuing certifications set by national and state green building agencies.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.5a. Improve sustainability standards for project design and expand the Green Construction Policy (GCP)	●			●			
3.5b. Pursue green certification and implement sustainability and resiliency technical requirements and specifications	●			●			

Strategy 3.6: Reduce regional GHG and criteria air pollutant emissions

Metro is committed to reducing greenhouse gas (GHG) emissions and air quality pollutants. Transportation has the most significant impact on regional emissions, and to do our part, Metro plans to reduce our agency emissions by 79% relative to 2017 levels.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
3.6a. Implement projects identified in the Energy Conservation Project Portfolio	●			●			
3.6b. Decarbonize Metro's energy and fuel supply	●				●		
3.6c. Implement a Scheduled Maintenance Program for stationary and mobile emissions sources to reduce emissions	●					●	
3.6d. Support local and regional projects that decrease GHG emissions or reduce single-occupant vehicle (SOV) trips	●			●			●

Green Construction

Metro established a Green Construction Policy (GCP) in 2011 to reduce emissions during construction, as well as the Sustainability Plan Program to assist contractors with meeting CALGreen obligations. The GCP was updated in 2018, requiring contractors to use renewable diesel for all diesel engines and thus reducing the negative health impacts from diesel exhaust. This effort reaffirms Metro's commitment to protect the communities we serve, especially those disproportionately affected by air pollution.



Zero-Emission Fleet

Metro will transition to zero-emission buses systemwide. The G Line (Orange) will be the first to deploy electric-battery buses as part of its improvements project, scheduled for completion by 2025. Originally planned by 2040, Metro would like to fully electrify by 2030. Metro is also taking the lead in forming a Countywide Zero-Emission Trucks Collaborative to promote consistency among public agencies in working to catalyze the development and deployment of zero-emission trucks in LA County, beginning with the I-710 Clean Trucks Program. This collaborative will include the Ports of Long Beach and Los Angeles, Caltrans, Southern California Association of Governments and the South Coast Air Quality Management District.



Our plan helps reduce emissions, for a healthier LA.

Safety and environmental sustainability are core tenets of Complete Streets strategies. The 2020 LRTP will help Metro reduce our emissions and the emissions of the transportation sector as a whole. The improvements are projected to decrease greenhouse gas (GHG) emissions by 19% and particulate matter emissions by 17% relative to the future trend.

■ **Future Trend (2047)**
■ **With 2020 LRTP (2047)**

Figure 20
Annual Million Metric Tons of CO2 Equivalent

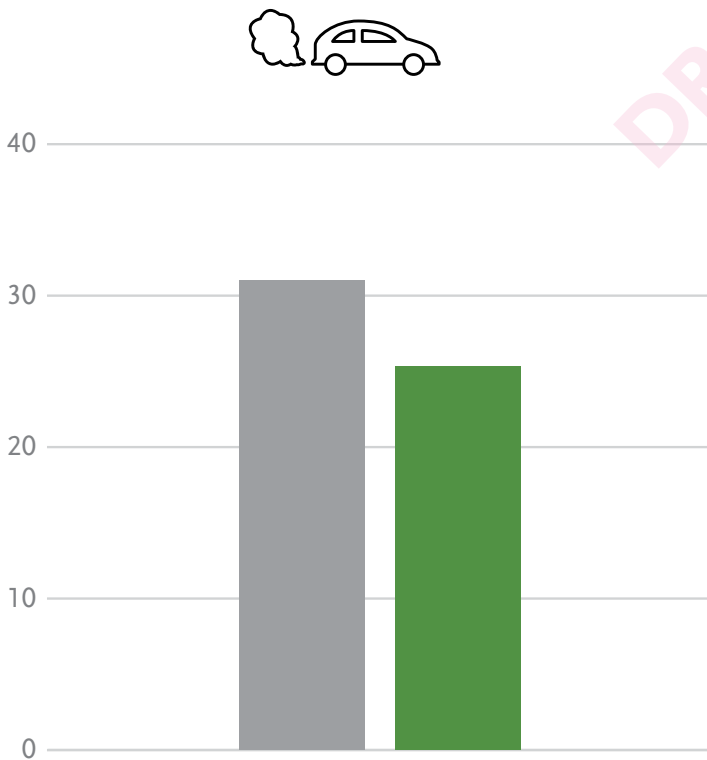
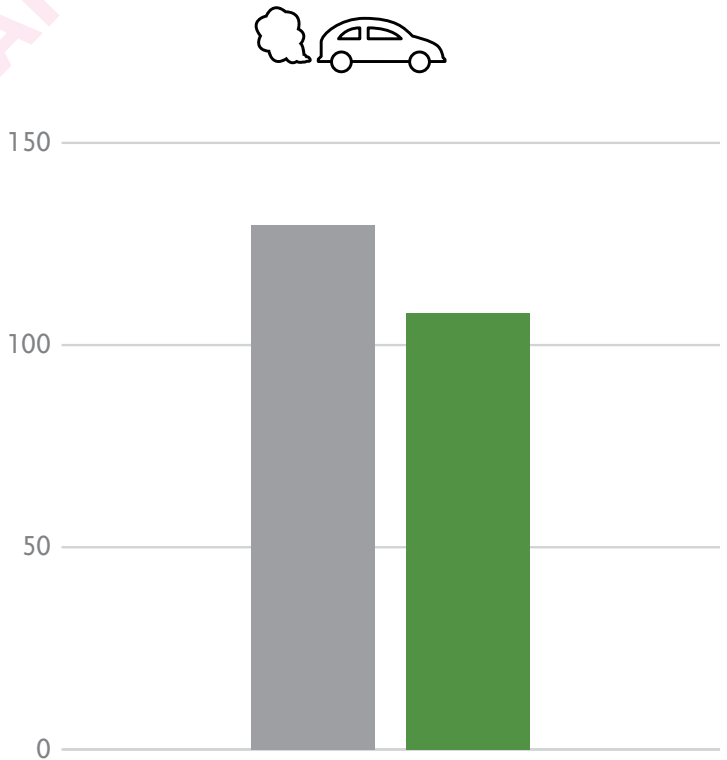


Figure 21
Annual Tons Particulate Matter (PM10)






Harbor Gateway Station, *Dreams*,
Béatrice Coron, artist.



**OUR
NEXT
LA* *is access
to opportunity.***



Access to opportunity means investing in communities to connect people to what they need. Travelers must get to where they need to go, when they need to be there – from their home to their job to their daily activities. Increasing access to opportunity brings better transit closer to jobs and homes, and supports small businesses, local economies and families.

We're investing in opportunity for communities that need it most.

For a transportation system to be successful it must allow everyone it serves to reach the things they need within a reasonable period of time. Access to jobs, education, healthcare, and other essential services must be the primary focus of transportation, as a stable foundation for vibrant communities. As stewards of the transportation system, Metro is responsible for providing transportation options, improving access, and investing in communities.

In 2018, Metro adopted its Equity Platform to help ensure system changes prioritize those most in need of improved access to opportunity. Metro recognizes that there are deep-rooted and pervasive racial and socioeconomic inequities that create disparate results and impacts, even when the intention is to help all. Accordingly, we need an understanding of those disparities and an intentional focus on those faring the worst in order to truly improve access to opportunity for all. The Equity Platform is structured around four pillars:

- I. Listen and Learn
- II. Define and Measure
- III. Focus and Deliver
- IV. Train and Grow.

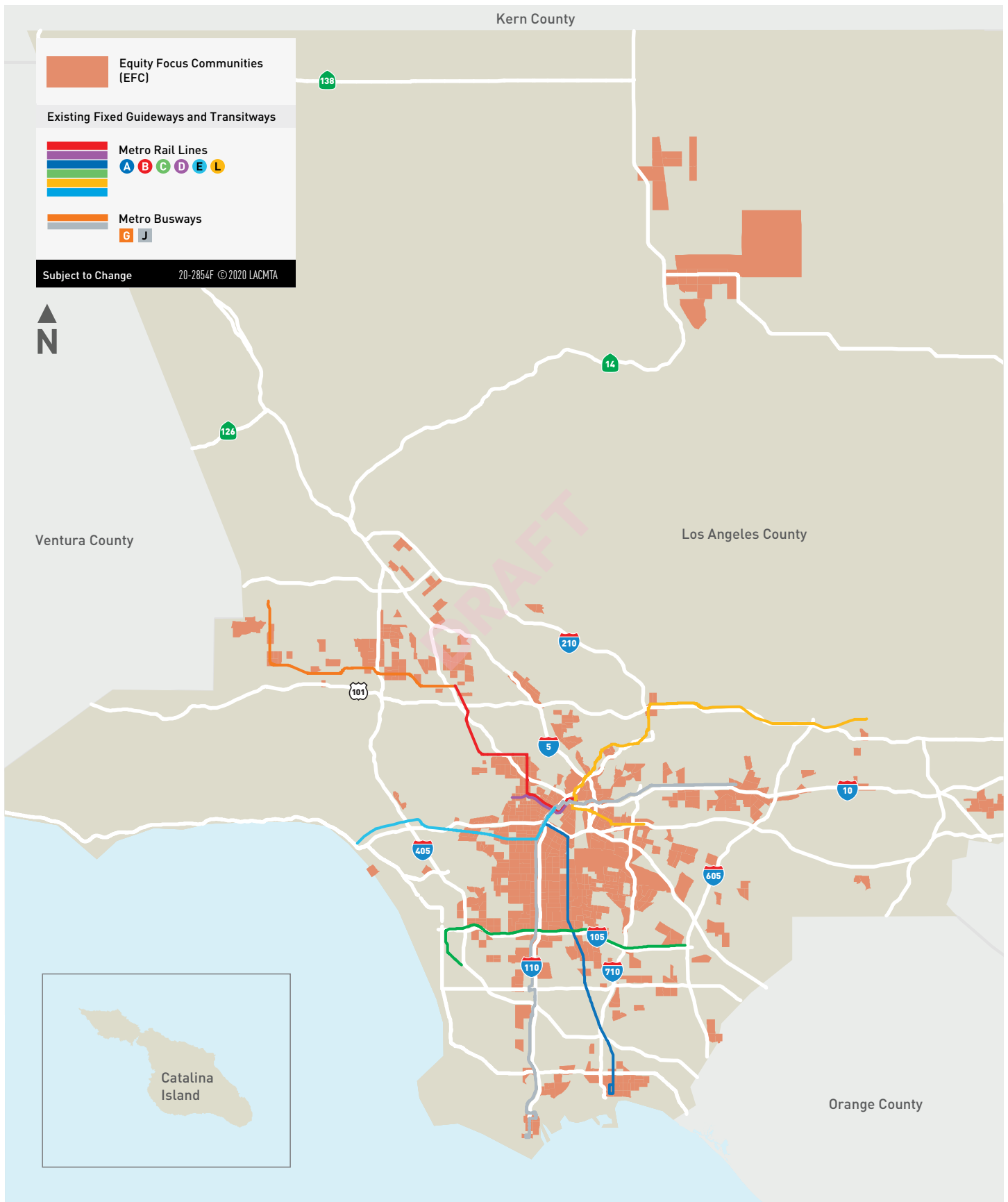
The LRTP was developed in accordance with these pillars, through robust public engagement, as well as clearly defining our goals and performance measures for tracking our effort to deliver better future access and mobility. This process and evaluation will ensure that Metro is transparent in our activities, that we continue to learn from our stakeholders, and that we use our resources effectively to benefit our communities.

Equity Focus Communities

As part of the LRTP, Metro has defined “Equity Focus Communities” (EFCs) as those communities most heavily impacted by gaps in inequity throughout the County. These communities represent geographic areas that have the following socioeconomic characteristics; more than 40% of households are low-income and either 80% of households are non-white or 10% have no access to a vehicle. Collectively, these areas represent about 30% of the county's population. EFCs are communities that have experienced historic disinvestments, reduced access to opportunity and housing, and policy decisions that have resulted in environmental justice disparities. As such, these communities have higher degree of various negative outcomes and are those with the greatest need.

Figure 22

METRO DESIGNATED EQUITY FOCUS COMMUNITIES



Priority Area 4: Access to Opportunity

Strategy 4.1: Advance equity through institutional transformation to eliminate disparities

Transportation can play an important role in economic development, increased opportunity and upward mobility. Metro seeks to ensure our programs, policies and investments expand opportunities for the communities in most need.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.1a. Implement Equity Platform	●				●		●
4.1b. Establish agency-wide definition of equity	●				●		
4.1c. Create and implement an equity assessment tool	●						●
4.1d. Prioritize investment to support those with the greatest mobility needs	●						●
4.1e. Prioritize improved access to opportunities for Equity Focus Communities	●			●			●
4.1f. Develop and advance a Racial and Socio-Economic Equity Action Plan		●			●		
4.1g. Explore funding opportunities and implementation strategies for Transit to Parks Strategic Plan			●				●

Strategy 4.2: Reduce household expenses on transportation

After housing, transportation is the second largest cost for many LA County households. Metro has fare assistance programs for targeted populations, including low-income households, youth and students.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.2a. Expand Low-Income Fare is Easy (LIFE) Program	●				●		
4.2b. Continue Youth on the Move Program	●				●		
4.2c. Continue U-Pass Program	●				●		
4.2d. Partner with transportation network companies (TNCs) to reduce the cost of accessing stations	●						●
4.2e. Explore free fares for students and the general public			●		●		●
4.2f. Complete Comprehensive Pricing Study to identify and evaluate pricing policy options relative to the goals of revenue, equity, security, ridership, and user experience	●				●		

Defining Equity

As part of our commitment to the Equity Platform Framework, Metro has developed the following definition of equity:

Equity is both an outcome and a process to address racial, socio-economic and gender disparities, to ensure fair and just access – with respect to where you begin and your capacity to improve from that starting point – to opportunities, including jobs, housing, education, mobility options and healthier communities. It is achieved when one’s outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic or social identities.

It requires community informed and needs-based provision, implementation and impact of services, programs and policies that reduce and ultimately prevent disparities.

Reduced Transit Fares

The Low-Income Fare is Easy (LIFE) program provides transportation assistance to low-income individuals in LA County. LIFE offers fare subsidies that may be applied toward the purchase of fares on Metro, any LIFE-participating transit agencies or free regional ride options. Reduced fare TAP cards are also eligible for additional savings with LIFE. Once enrolled, LIFE benefits can be loaded onto TAP cards at any participating vendor. Metro is considering free transit for students, and if additional revenue is raised through congestion pricing, Metro could subsidize transit for all riders.



Strategy 4.3: Build affordable housing near transit

Metro is working with our partners to address LA County's housing and affordability crisis through several initiatives aimed at developing more and affordable housing near transit.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.3a. Implement Transit Oriented Communities (TOC) Policy	●						●
4.3b. Implement Joint Development Program	●						●
4.3c. Partner to build affordable transit-oriented housing	●						●

Transit Oriented Communities (TOC)

In June 2018, the Metro Board of Directors adopted the TOC Policy, an ambitious effort that elevates Metro's commitment to prioritize equity and consider land use and community development as we plan and implement the transit system.

TOCs are places (such as corridors or neighborhoods) that, by their design, allow people to drive less and access transit more. A TOC maximizes equitable access to a multi-modal transit network as a key organizing principle of land use planning and holistic community development. TOCs differ from Transit Oriented Development (TOD) in that TOD is a specific building or development project that is fundamentally shaped by proximity to transit.

TOCs promote equity and sustainable living in a diversity of community contexts by:

- > Offering a mix of uses that support transit ridership of all income levels (e.g., housing, jobs, retail, services and recreation)
- > Ensuring appropriate building densities, parking policies, and urban design that support accessible neighborhoods connected by multi-modal transit
- > Elevating vulnerable users and their safety in design
- > Ensuring that transit related investments provide equitable benefits that serve local, disadvantaged and underrepresented communities.

In addition, the TOC Policy formalizes Metro's commitment to partner with the 88 cities and unincorporated areas in LA County and local communities to support "TOC activities". These activities are largely community development activities and support the TOC program's goals:

- > **Increase transportation ridership and choice**
- > **Stabilize and enhance communities surrounding transit**
- > **Engage organizations, jurisdictions and the public**
- > **Distribute transit benefits to all**
- > **Capture the value created by transit**

Metro's Joint Development program, whereby Metro partners with developers to build TODs on Metro-owned properties, is a key program where we can help foster equitable TOCs. Metro's Joint Development sites are a gateway to the Metro transit system and hold unique potential to advance community development goals while attracting new riders to transit.

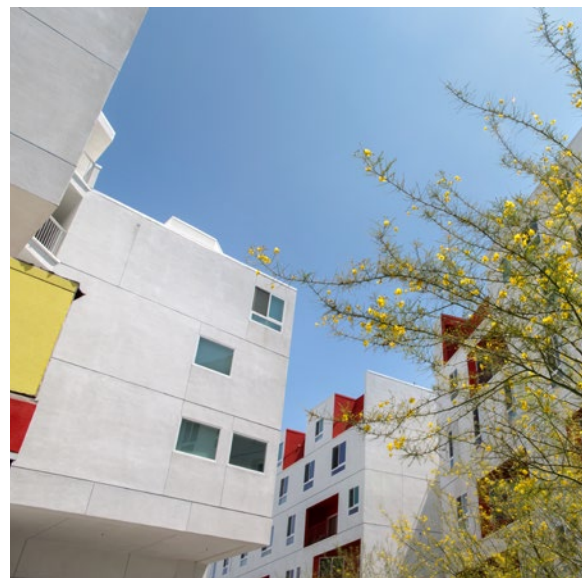


Figure 23

JOINT DEVELOPMENT PROJECTS



- 2 Grand Central Market
- 3 Willow
- 4 Hollywood/Highland
- 5 Del Mar
- 6 Sierra Madre Villa
- 7 Wilshire/Vermont Apts and School
- 8 Wilshire/Western
- 9 Hollywood/Vine
- 10 Hollywood/Western
- 11 Fillmore
- 12 Westlake/MacArthur Park (Phase A)
- 13 One Santa Fe
- 14 1st/Boyle
- 15 Taylor Yard Lots 1, 3, 4

- 2 North Hollywood
- 3 1st/Soto
- 4 1st/Lorena
- 5 Cesar Chavez/Soto
- 6 Cesar Chavez/Fickett
- 7 Division 6
- 8 Expo/Crenshaw
- 9 Mariachi Plaza
- 10 Vermont/Santa Monica
- 11 Little Tokyo/Arts District

* Sites Metro currently has in construction; is in negotiations with a developer; is conducting community engagement to inform development guidelines; or has an active Request for Proposals (RFP) out.

- 2 Sepulveda Park & Ride
- 3 El Monte
- 4 Wilshire/Crenshaw
- 5 Wilshire/La Brea

** Sites Metro expects to release a RFP for in the next one to three years.

Strategy 4.4: Invest in the regional workforce

Metro is investing in the regional workforce through training, education and employment opportunities. Metro has several existing programs in this area and plans to open its transportation school in 2022.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.4a. Expand training programs, career academies, apprenticeship programs and employment opportunities in LA County	●				●		●
4.4b. Implement Project Labor Agreement and Construction Careers Policy	●				●		
4.4c. Increase resources needed to train and place people in hard-to-fill positions (WIN-LA)	●				●		
4.4d. Develop logistics workforce initiatives and pilot programs		●					●

Strategy 4.5: Expand opportunities for small businesses

Metro is committed to supporting small businesses and local economies through our contracting procedures, our projects in local communities and our direct investments.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.5a. Ensure local transportation investments support local business district programs	●						●
4.5b. Support small businesses throughout construction (Business Interruption Fund and Business Solution Center)	●						●
4.5c. Expand Metro small business programs (DBE, SBE, and DVBE) through training, partnering and mentorship programs	●				●		●

Strategy 4.6: Maximize our local investments

State and federal funding sources allow Metro to maximize our local resources. Metro continues to explore all funding opportunities and innovative project delivery mechanisms to increase the impact of our investments.

ACTION	NOW	SOON	FUTURE	BUILD	MANAGE	MAINTAIN	PARTNER
4.6a. Support local jurisdictions to submit competitive grant applications	●				●		●
4.6b. Deliver projects through alternative delivery models, including Public-Private Partnerships, as appropriate	●			●	●		●
4.6c. Leverage local transportation dollars to secure state and federal grants	●						●

E3 Training Programs

Metro is investing in transportation workers through the E3 Initiative, to expose, educate, and employ the next generation of LA County. The initiative's mission is to prepare the LA County youth for career and college pathways in the global transportation infrastructure industry by teaching them transferrable industry skills. The programs include Metro's Transportation School, Teacher Externship Program, Entry Level Trainee Program, Transportation Career Academy Program, Rail Vehicle Maintenance Program at LA Trade-Technical College, Metro Joint Apprenticeship Committee (JAC), and Metro Bridge Academy.



Supporting Local Business

Metro's Business Interruption Fund (BIF) provides financial assistance to small businesses impacted by rail construction and located along the following corridors: Crenshaw/LAX Transit Project; the Little Tokyo and 2nd/Broadway areas along the Regional Connector Transit Project; and the D Line (Purple) Extension.

Metro's Pilot Business Solution Center (BSC) provides hands-on business assistance and support services to small businesses along the Crenshaw/LAX Transit Project corridor during the years of construction.

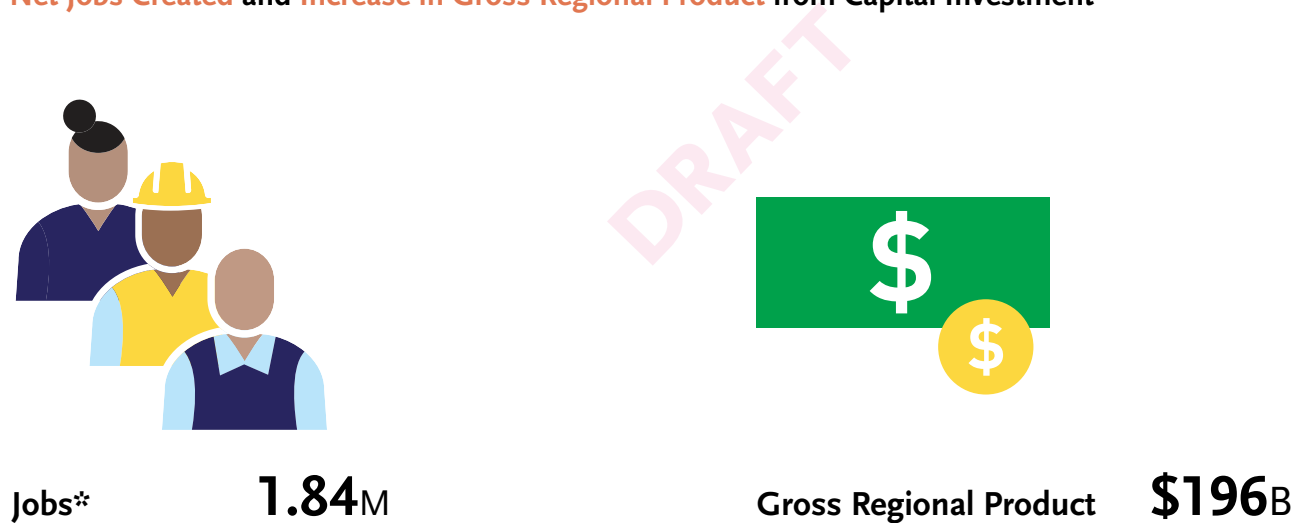


Our plan creates jobs and boosts LA's economic health.

The 2020 LRTP will benefit the local and regional economy. Direct and indirect economic benefits come from the expenditures on transportation projects. Furthermore, transportation system enhancements generate travel time savings, and increase economic output and competitiveness. Expenditures and improvements included in only the capital plan of the LRTP, not including the additional policies and programs, are anticipated to increase Gross Regional Product by \$196 billion and create 1.84 million jobs over the 30-year period.

Figure 24

Net Jobs Created and Increase in Gross Regional Product from Capital Investment



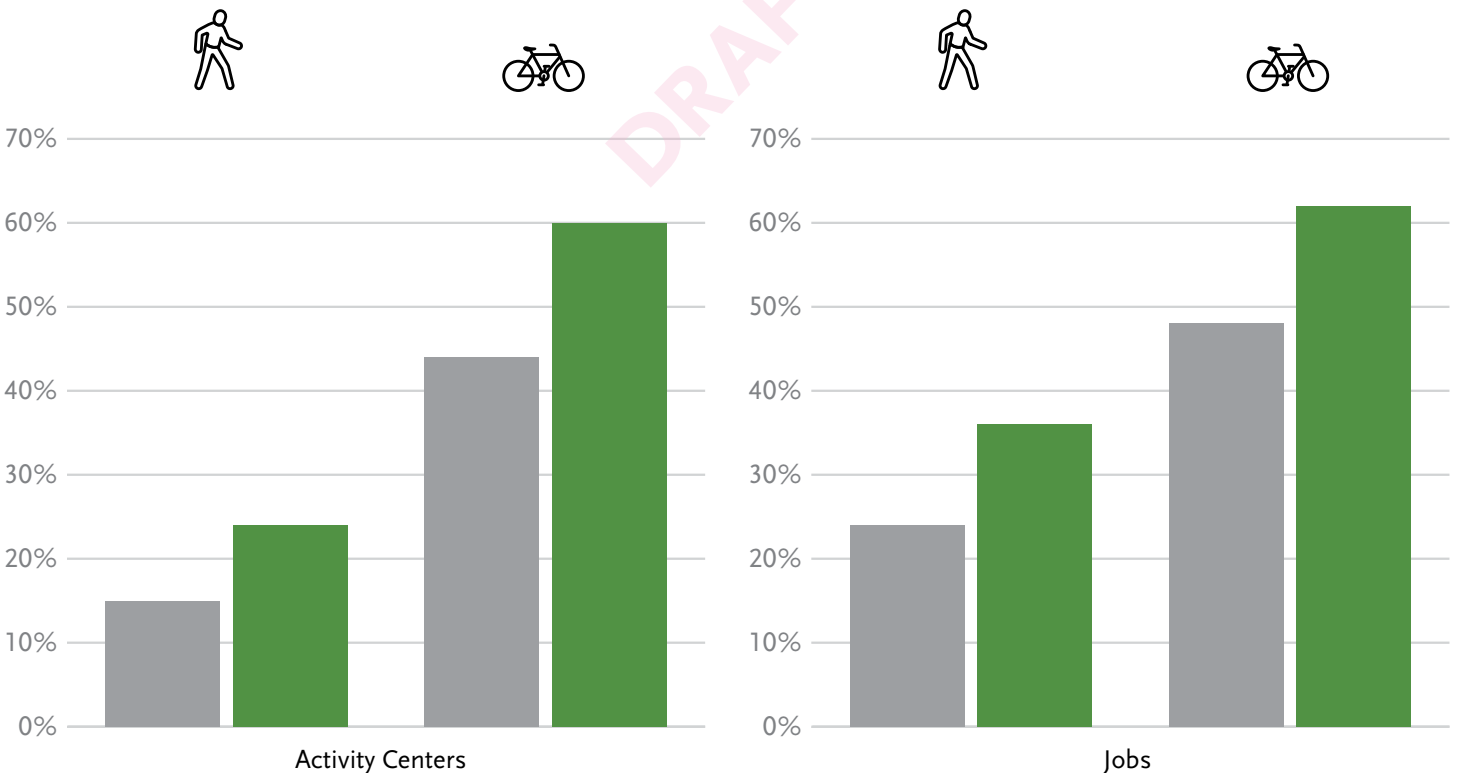
*A single year of employment for one individual

Transit should connect people to where they want and need to go. The 2020 LRTP will increase the number of jobs and activity centers within a 10-minute walk or roll of fixed guideway transit. For example, it will bring about a 50% increase in jobs accessible and 60% of activity centers within a 10-minute walk of a transit station.

Future Trend (2047)
 With 2020 LRTP (2047)

Figure 25

Percent of Activity Centers and Jobs within a 10-minute Walk or Roll of Fixed Guideway Transit



We're funding a transportation revolution, \$400 billion strong.

The 2020 LRTP provides the funding for the largest public works projects in North America, identifying \$400 billion to be spent on transportation over the 30-year period. The LRTP financial forecast includes revenue from local sales tax, state sources, federal programs and other sources. Approximately 74% of funding is controlled by Metro, either from federal and state programs or through locally generated revenues. LA County has passed four separate ½-cent transportation sales taxes over the past 40 years: Proposition A (1980), Proposition C (1990), Measure R (2008) and Measure M (2016).

Figure 26 highlights the estimated funding by use. This includes all funding for capital projects, operations and maintenance countywide, including funding sources that Metro does not control. Almost half of the expenditures are capital investments for transit, highway or multi-modal projects, including the subregional funding programs and Local Return allocated to cities. Investment in active transportation makes up about \$6.9 billion of the 30-year total, included primarily under the roadways program. Transit operations, both rail and bus, comprise more than one-quarter of the estimated future expenditures.

The LRTP is a financially constrained plan, which means our committed investments are programmed to match our anticipated funding. The forecast is based on estimated sales tax growth and existing project cost estimates. Future changes may present challenges that must be balanced within a constrained plan and updated or amended as appropriate. The financial model anticipates growth over the 30-year forecast and some economic disruptions; however, the LRTP is a living document which can be regularly updated as needed.

Almost half of all the funding is derived from LA County's four transportation sales tax measures. State programs, bolstered by the recent passage of SB 1 (the Road Repair & Accountability Act of 2017), make up about 20% of the projected funding. Local funding sources, including transit fare revenue, contribute 17% and federal sources, once a large share of local transportation funding, is only 8% of the future funding.

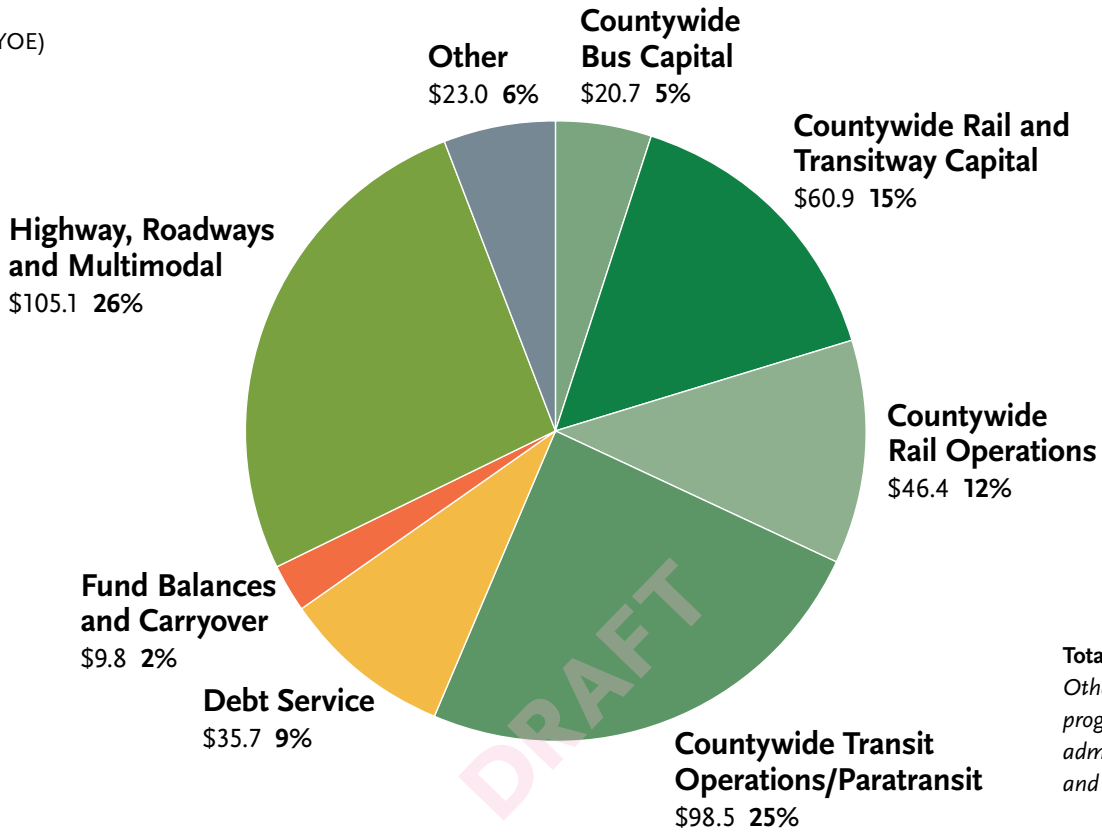
While the expanded programs, partnerships and policies of the 2020 LRTP represent additional expenditures, these will be balanced by future revenues anticipated through future policies, such as ExpressLanes and congestion pricing.

Figure 26

Countywide Uses and Sources of Transportation Funding (FY2021–FY2050)

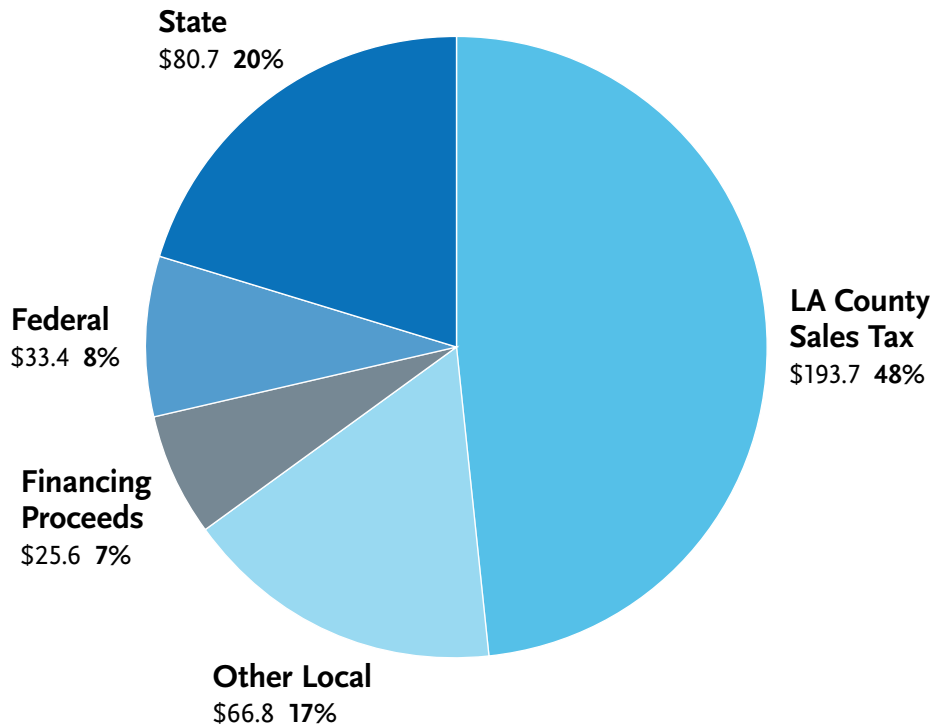
Total Uses

\$ in billions (YOE)



Total Sources

\$ in billions (YOE)



Supporting Our Partners

Metro, as the Regional Transportation Planning Agency, is the recipient agency for many state and federal funding programs that pass through to local jurisdictions. Furthermore, Metro administers the revenue from the four LA County transportation sales taxes, each providing substantial transportation funding for local jurisdictions.

Local Return

Local jurisdictions receive transportation funding from Metro through the Local Return program. Over the 30-year period, this amount is anticipated to be \$38 billion. The Local Return program is funded by each of the four sales taxes authorized by Metro, including 25% of Proposition A, 20% of Proposition C revenue, 15% of Measure R and 17% of Measure M (increasing to 20% in 2039).

The largest percentage of local return funding goes to support for local public transit and dial-a-ride services. Prop A required all funding be used for public transit; Prop C expanded the eligible uses of funding, but funded projects must demonstrate a public transit benefit or be performed on streets heavily used by public transit. Measures R and M expanded eligibility to most transportation purposes, and therefore, a large portion of local return funds are dedicated to active transportation projects, street resurfacing or other roadway improvements.



Measure M Multi-year Subregional Programs

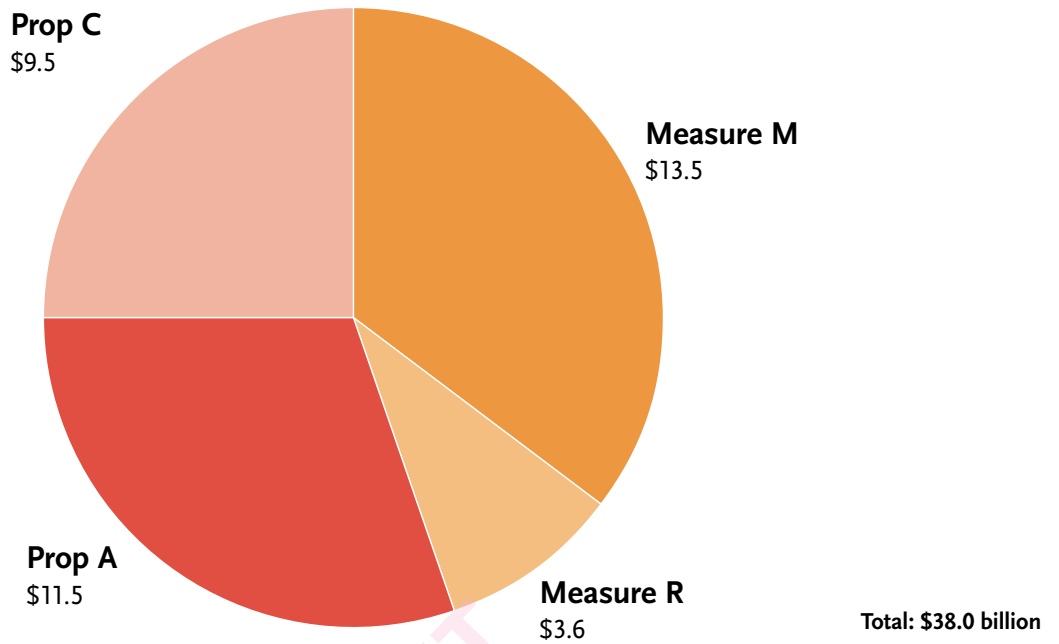
Measure M created 36 Multi-year Subregional Programs (MSP) that program \$13.5 billion to the nine subregions in LA County. These MSPs were created with input from the subregions and highlight the transportation priorities of various communities throughout LA County. Some subregions also dedicated resources to specific highway and transit projects included in the expenditure plan. The majority of the future MSP funding is allocated to roadway projects (56%) and a substantial amount is allocated to active transportation (23%) and transit (15%).



Figure 27

Local Return Funding

\$ in billions (YOE)

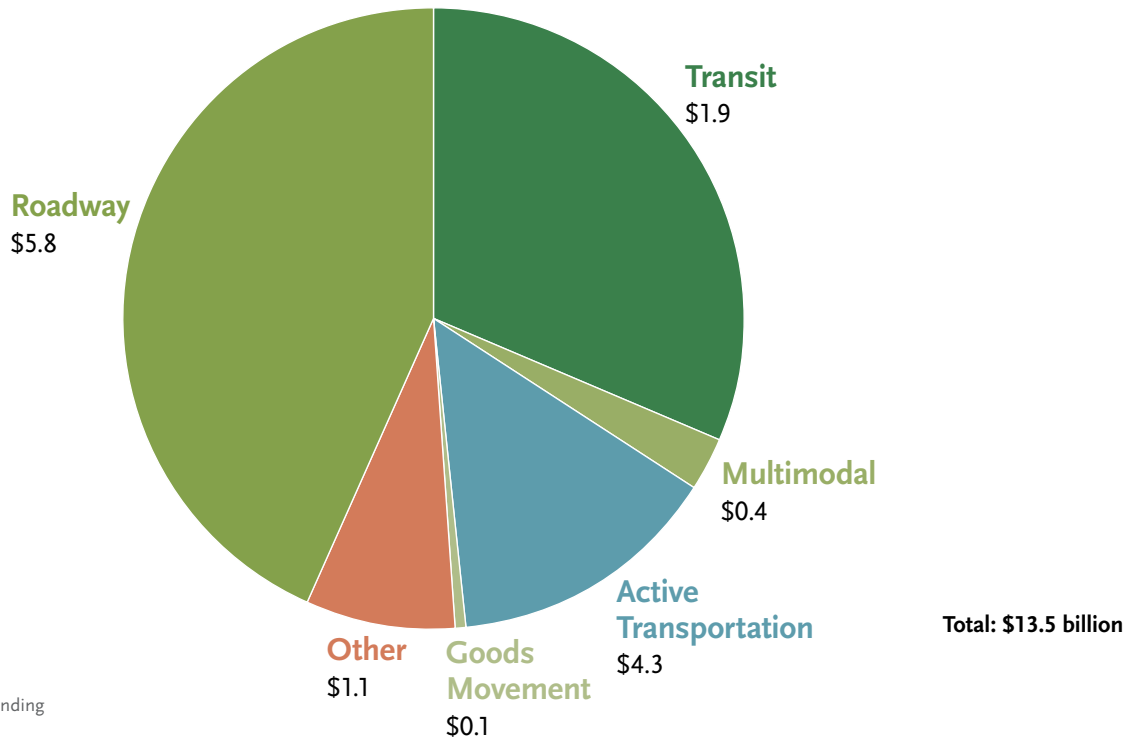


Numbers may not add due to rounding

Figure 28

Multi-year Subregional Program Funding

\$ in billions (YOE)



Numbers may not add due to rounding

Operations & Maintenance

A functioning, high-quality transportation system is essential for the efficiency of the system and the safety of users. The cost to operate and maintain LA County's transportation system is substantial, and we must continue to invest the resources to operate, maintain and rehabilitate the transportation system, including the expanding transit system and the vast network of roadways, and bicycle and pedestrian facilities.

The 30-year estimate for operations and maintenance included in the 2020 LRTP is over one-half of the 30-year investment estimate, with an estimated \$169 billion in transit operations and state of good repair (SGR), and \$32 billion in freeway operations and SGR.

Transit Operations and State of Good Repair (SGR)

LA County has almost 50 transit agencies that own more than 7,000 revenue vehicles, plus additional service vehicles, equipment and facilities. Metro bus and rail operations will require an investment of almost \$97 billion over the 30-year period, and an additional \$24 billion to rehabilitate and repair the assets. Municipal and local agency operations will require an additional \$33 billion.

Metrolink

The Metrolink system provides high-speed, long-distance regional commuter rail service over 538 route-miles, carrying an average of 38,000 weekday passenger trips. Metrolink is governed by the Southern California Regional Rail Authority (SCRRA), a joint powers authority representing the transportation commissions of Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. LA County, through Metro, provides an operating subsidy for Metrolink. Over the 30-year period, the 2020 LRTP financial plan assumes Metrolink funding amounts totaling over \$800 million in state of good repair, \$6.7 billion in operations and \$1.3 billion in capital expansion.

Access Services

Metro provides funding for countywide paratransit service for the elderly and people with disabilities, operated by Access Services. A flexible service paratransit is a federally mandated right through the Americans with Disabilities Act (ADA) for persons with disabilities who cannot access fixed-route buses and trains. Paratransit, typically provided in vans or mini-buses, is on-demand and does not follow fixed routes or schedules. A total of \$8.5 billion will be needed to operate paratransit over the 30-year period.

Roadway Operations

Highway and arterial operations and maintenance include activities to keep roadways properly maintained, such as roadway resurfacing and bridge rehabilitation, as well as solutions to improve the operational efficiency of the system. Examples of these strategies include traveler information, intelligent transportation systems (ITS) and incident management solutions.

Transportation System Management (TSM) strategies are tools that use traffic engineering and operational measures to maximize capacity and reduce traffic delays on streets and highways. Intelligent Transportation Systems (ITS) strategies, such as the Regional Integration of ITS (RIITS) program, are low-cost and dramatically improve traffic flow, movement of vehicles and goods, system reliability, air quality, and safety.

Freeway Service Patrol (FSP) is a congestion mitigation program managed in partnership with Metro, California Highway Patrol (CHP) and Caltrans on all major freeways in LA County and is the largest of its kind in the nation, performing approximately 25,000 assists each month. The program utilizes a fleet of patrolling tow and service trucks designed to quickly remove disabled passenger vehicles and freight trucks.

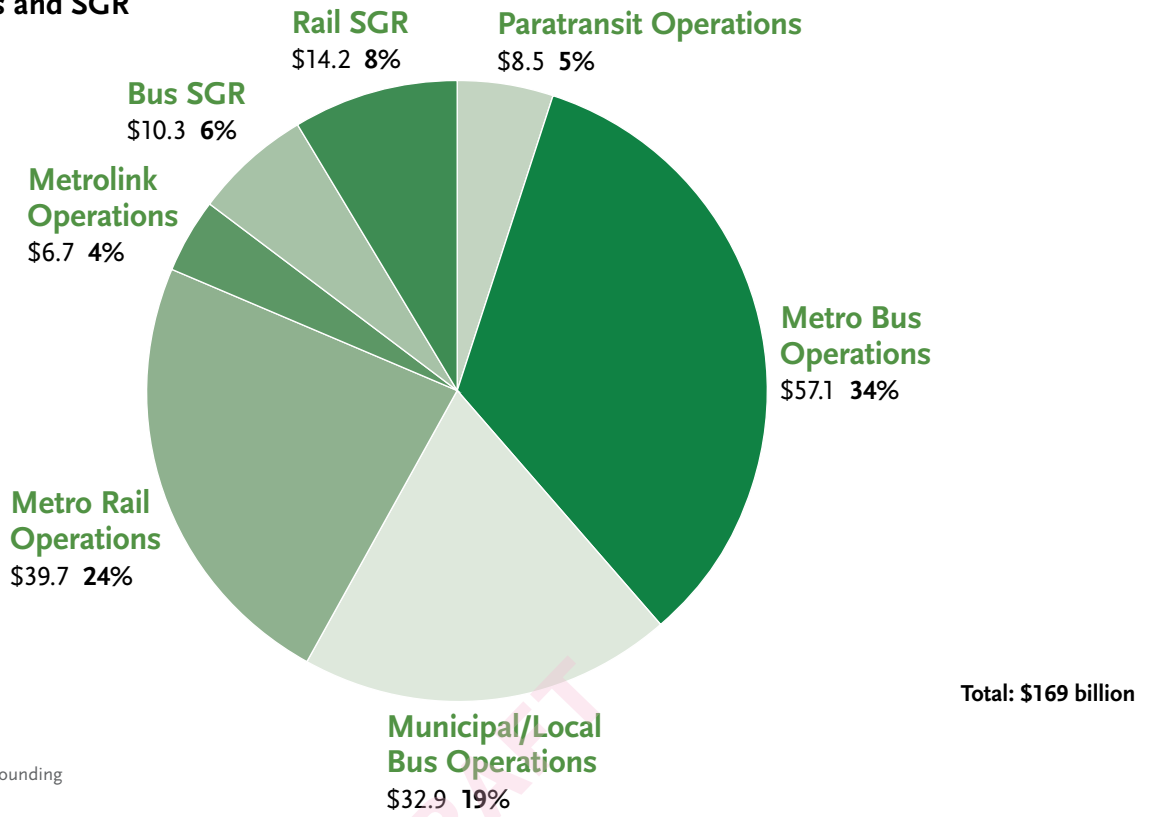
Roadway State of Good Repair

The State Highway Operations and Protection Program (SHOPP) is a Caltrans program to rehabilitate California's highway system. The program identifies and approves funding for projects consistent with California's Transportation Asset Management Plan. Over a 30-year period, the estimated funding available in LA County through the SHOPP program is close to \$22 billion. Local roadway rehabilitation is funded in large part by the Local Return program, described above.

Figure 29

Transit Operations and SGR

\$ in billions (YOE)

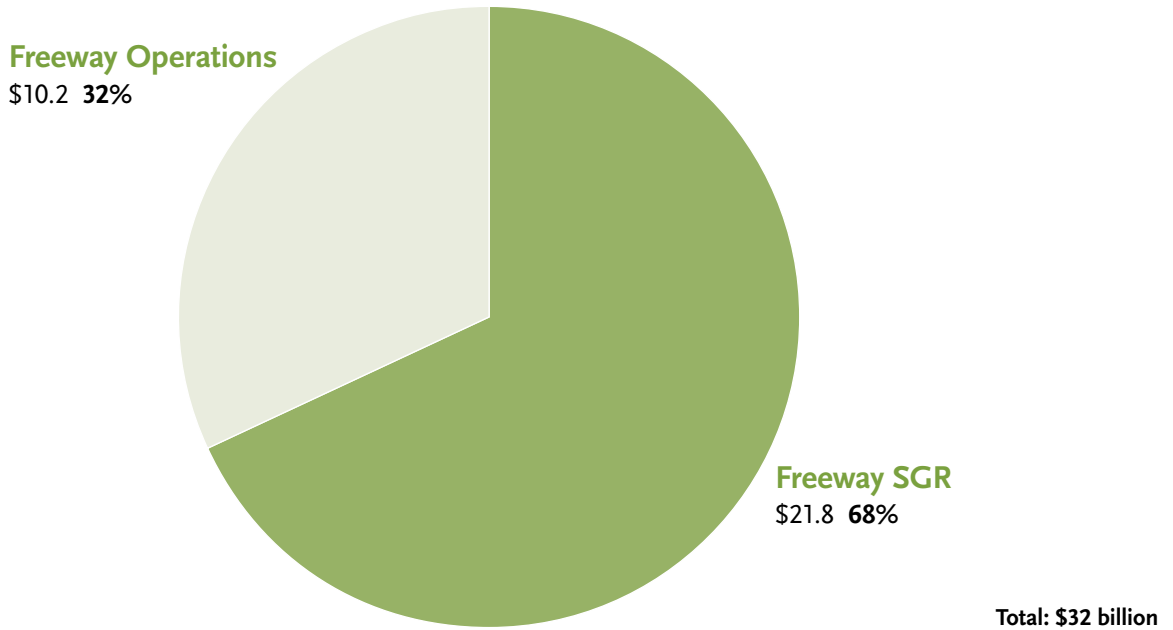


Numbers may not add due to rounding

Figure 30

Freeway Operations and SGR

\$ in billions (YOE)



Numbers may not add due to rounding

We're also building bold new programs and policies.

The preceding investment plan is the backbone of the LRTP, highlighting LA County's commitment to expanding transit, maintaining the transportation system, and facilitating the movement of people and goods. However, this investment alone will not address the challenges facing our region.

LA County must support the capital program by advancing additional policies and programs to catalyze the investment and bring about the transportation system benefits that are needed for the region, without creating additional financial burdens. To this end, Metro must provide more and better transportation options, and incentivize transit and active travel modes.

Provide More and Better Transportation Options

Better transportation options mean providing multiple viable transportation choices that meet the needs of travelers with different requirements, desires and means. Solutions include:

- > **Complete the ExpressLanes Strategic Network.** Completing the Tier 1, Tier 2 and Tier 3 ExpressLanes network (see page 43) would add high-occupancy toll lanes to the majority of LA County freeways. ExpressLanes free up capacity on general purpose lanes, generate revenues and offer a faster, more reliable trip for those who carpool or who are willing to pay the toll.
- > **Improve bus speeds.** Improving transit travel times is crucial to making transit competitive with driving private automobiles. To improve speeds, Metro is implementing transit priority initiatives and bus speed improvement projects, such as all-door boarding, making fare payment easier, bus stop optimization, signal synchronization and transit signal priority. However, to truly make transit competitive and realize the goals in Vision 2028, the NextGen Bus Plan must implement a network of bus rapid transit routes and bus-only lanes. This will require a commitment and strong partnership with local cities to dedicate roadway space to transit.
- > **Promote Trip Reduction Strategies.** Providing meaningful travel choices means that Metro must continue to provide and support travel solutions that align with our current and future priorities. Metro recognizes that telecommuting has grown steadily over the past decade and that COVID-19 has dramatically accelerated that trend. An increase in delivery services and virtual engagement practices also have reduced the need for personal travel. We will continue to collaborate with our local partners to support trip reduction benefits and opportunities, as part of our efforts to manage travel demand, reduce the number of SOV trips, and provide new transportation options.

Incentivize Transit and Active Travel Modes

Incentivizing transit and active transportation requires policies that make these modes more attractive compared to driving a private automobile. Solutions include:

> **Explore implementation of pilot traffic reduction program.**

As part of a pilot program to improve mobility in a congested area of LA County, Metro is exploring congestion pricing strategies coupled with a package of transportation improvements with the goals of providing more travel options, improving equity, and increasing environmental benefits. Metro will work with our partners to implement a pricing program that meets our mobility goals while balancing equity and economic concerns.

> **Provide more affordable transit.** Decreasing transit fares can potentially boost transit ridership. In order to meet our transit ridership goals, Metro must expand our reduced fare programs and make fare payment easier. Metro will assess current and new pricing models to develop a simplified, fiscally sustainable, system-wide approach to pricing that addresses affordability concerns for low-income and disadvantaged populations, while also providing better mobility and security for all users across Metro's portfolio of transportation services.

> **Expand first/last mile connectivity.** Metro will work with local and regional partners to improve access to transit by removing barriers to transit stations or destinations. We will collaborate with our partner agencies to dramatically increase the regional network of active transportation facilities, including shared-use paths and on-street bikeways, and develop a funding strategy to get them built.

> **Support transit-oriented communities.** We will implement a comprehensive approach to facilitating development on Metro-owned land around high-quality transit stations and will quantify the impact of these developments within a one to one-and-a-half-mile radius in the transit corridor. Metro will develop programs and processes, new policies and special projects that reflect Metro's commitment to realizing holistic, inclusive community development and land use planning along existing and proposed transit corridors. This effort disseminates a vast array of TOC initiatives along with lessons learned for Metro, its external partners and peer transit agencies.



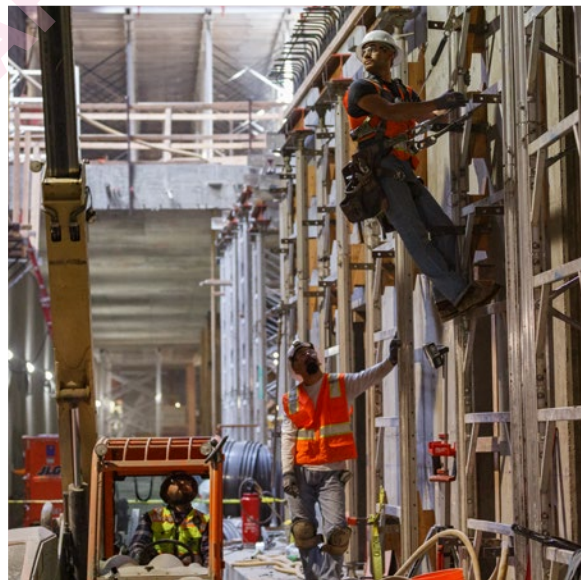
Plans for today, and the decades to come.

The 2020 LRTP is a financially constrained plan that examines how Metro's future transportation investments can be leveraged to achieve the maximum mobility benefits for all of LA County. It is the culmination of two years of sustained community engagement to establish stakeholder priorities, as well as technical analysis to determine the anticipated benefits of the LRTP over the next 30 years.

Building transportation infrastructure creates economic benefits. The jobs, spending, and increased access that these investments represent are needed now, more than ever. Our challenge is to proceed systematically, prioritizing strategies within this plan. The prioritization of Metro's infrastructure investments is the next step, which will be firmly rooted in equity and sustainability.

Metro's forthcoming Short Range Transportation Plan (SRTP) is a 10-year action plan for the investments, policies, and system improvements needed to advance the 2020 LRTP. The SRTP will acknowledge and analyze the region's new travel patterns and address regional economic recovery and resilience, while continuing to improve regional mobility, air quality, social justice and the advancement of equity. The SRTP will focus on achieving these outcomes through the transparent development of a fiscally responsible action plan that recognizes the near-term system improvements necessary to ensure maximum return on our transportation investments.

As part of the SRTP development Metro will create a strategic project list to include ideas for additional improvements through partnership priorities. The strategic project list will build upon the Mobility Matrix process previously established as part of Measure M, and other partner initiatives, to ensure a continuum of community-based ideas, evaluated against evolving regional needs. Essential to the development of a strategic project list will be analysis of equity impacts and sustainability benefits. Strategic projects do not require funding plans, but they will require statements about their overall benefits and future financial requirements. The SRTP will identify future programming capacity of anticipated resources within the SRTP timeline and beyond.





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Attachment B

2020 LRTP Technical Document



Metro[®]

We have a plan for **OUR NEXT LA***

2020 Long Range Transportation Plan
TECHNICAL DOCUMENT

Table of Contents

Introduction	4	Tables and Charts	
Outreach Summary	6	<i>Figure 1</i>	Public Outreach Process 7
Priority Areas	14	<i>Figure 2</i>	Large Employer Outreach 8
Better Transit	16	<i>Figure 4</i>	Outreach Events 12
Less Congestion	26	<i>Figure 5</i>	Existing Rail Network 17
Complete Streets	34	<i>Figure 6</i>	Transit Investment 18
Access to Opportunity	40	<i>Figure 7</i>	Better Transit Programs, Plans, and Policies 22
Sustainability	46	<i>Figure 8</i>	Highway Investment 27
Equity	52	<i>Figure 9</i>	Less Congestion Programs, Plans, and Policies 30
Financial Model	54	<i>Figure 10</i>	Active Transportation Investment 35
Major Revenue Assumptions	56	<i>Figure 11</i>	Complete Streets Programs, Plans, and Policies 36
Revenue Assumptions	64	<i>Figure 12</i>	Access to Opportunity Programs, Plans, and Policies 41
Travel Demand Model and Assumptions	70	<i>Figure 13</i>	Travel Demand Model Components 72
Metro Model Overview	71	<i>Figure 14</i>	Travel Demand Modeling Process 73
Alternatives Modeled	78	<i>Figure 15</i>	Metro Long Range Transportation Plan Base Year (2017) Model Flowchart 74
Model Inputs	82	<i>Figure 17</i>	Model Validation Data 76
Model Outputs	90	<i>Figure 18</i>	Expenditure Plan Transit Projects 78
Trip Distribution	94	<i>Figure 20</i>	Expenditure Plan Highway Projects 80
Scenario and Hybrid Testing	102	<i>Figure 22</i>	Highway Free Flow Speeds and Lane Capacities 82
L RTP Performance Measures and Monitoring	108	<i>Figure 24</i>	Summary of Highway Lane-Miles by Facility Type and Subregion in LA County 84
L RTP Systemwide Performance	109	<i>Figure 25</i>	Population Growth by County 87
Title VI Analysis	124	<i>Figure 26</i>	Population Growth by Subregion 87
Ongoing Monitoring	136	<i>Figure 27</i>	Employment Growth by County 89
Subregional Profiles	140	<i>Figure 28</i>	Employment Growth by Subregion 89
Arroyo Verdugo Cities	144	<i>Figure 29</i>	Total Daily Trip Production by County 91
Central Los Angeles	150	<i>Figure 30</i>	Total Daily Trip Production by Subregion 91
Gateway Cities	156	<i>Figure 31</i>	Total Daily Trip Attraction by County 93
Las Virgenes/Malibu	162	<i>Figure 32</i>	Total Daily Trip Attraction by Subregion 93
North Los Angeles County	168	<i>Figure 41</i>	Systemwide Daily Boarding Comparison by Mode 106
San Fernando Valley	174	<i>Figure 42</i>	Goal 1 Systemwide Performance Results 111
San Gabriel Valley	180	<i>Figure 43</i>	Goal 2 Systemwide Performance Results 113
South Bay Cities	186	<i>Figure 44</i>	Goal 3 Systemwide Performance Results 116
Westside Cities	192	<i>Figure 45</i>	Goal 4 Systemwide Performance Results 121
Glossary	198	<i>Figure 46</i>	Goal 5 Systemwide Performance Results 123
		<i>Figure 47</i>	Los Angeles County Ethnicity Based on 2017 ACS 124
		<i>Figure 48</i>	Los Angeles County Race Based on 2017 ACS 124
		<i>Figure 54</i>	Job Accessibility by Income Quintile 133
		<i>Figure 55</i>	Job Accessibility by Population Subgroup 134
		<i>Figure 56</i>	Mode Choice by Income Quintile 135
		<i>Figure 57</i>	Mode Choice by Population Subgroup 135
		<i>Figure 58</i>	Performance Measures and Data Source 137
		<i>Figure 61</i>	Arroyo Verdugo Projects and Multi-year Subregional Programs 146
		<i>Figure 66</i>	Arroyo Verdugo Summary Demographics 149

*By LA, we mean all 88 cities, unincorporated areas and hundreds of neighborhoods, in LA County.

Figure 68	Central Los Angeles Projects and Multi-year Subregional Programs	152
Figure 73	Central Los Angeles Summary Demographics	155
Figure 75	Gateway Cities Projects and Multi-year Subregional Programs	158
Figure 80	Gateway Cities Summary Demographics	161
Figure 82	Las Virgenes/Malibu Projects and Multi-year Subregional Programs	164
Figure 87	Las Virgenes/Malibu Summary Demographics	167
Figure 89	North Los Angeles County Projects and Multi-year Subregional Programs	170
Figure 94	North Los Angeles County Summary Demographics	173
Figure 96	San Fernando Valley Projects and Multi-year Subregional Programs	176
Figure 101	San Fernando Valley Summary Demographics	179
Figure 103	San Gabriel Valley Projects and Multi-year Subregional Programs	182
Figure 108	San Gabriel Valley Summary Demographics	185
Figure 110	South Bay Cities Projects and Multi-year Subregional Programs	188
Figure 115	South Bay Cities Summary Demographics	191
Figure 117	Westside Cities Projects and Multi-year Subregional Programs	194
Figure 122	Westside Cities Summary Demographics	197

Figure 64	ARROYO VERDUGO POPULATION DENSITY	148
Figure 65	ARROYO VERDUGO LAND USE	148
Figure 67	CENTRAL LOS ANGELES	151
Figure 69	CENTRAL LOS ANGELES DAILY TRIPS	153
Figure 70	CENTRAL LOS ANGELES EMPLOYMENT DENSITY	153
Figure 71	CENTRAL LOS ANGELES POPULATION DENSITY	154
Figure 72	CENTRAL LOS ANGELES LAND USE	154
Figure 74	GATEWAY CITIES	157
Figure 76	GATEWAY CITIES DAILY TRIPS	159
Figure 77	GATEWAY CITIES EMPLOYMENT DENSITY	159
Figure 78	GATEWAY CITIES POPULATION DENSITY	160
Figure 79	GATEWAY CITIES LAND USE	160
Figure 81	LAS VIRGENES/MALIBU	163
Figure 83	LAS VIRGENES/MALIBU DAILY TRIPS	165
Figure 84	LAS VIRGENES/MALIBU EMPLOYMENT DENSITY	165
Figure 85	LAS VIRGENES/MALIBU POPULATION DENSITY	166
Figure 86	LAS VIRGENES/MALIBU LAND USE	166
Figure 88	NORTH LOS ANGELES COUNTY	169
Figure 90	NORTH LOS ANGELES COUNTY DAILY TRIPS	171
Figure 91	NORTH LOS ANGELES COUNTY EMPLOYMENT DENSITY	171
Figure 92	NORTH LOS ANGELES COUNTY POPULATION DENSITY	172
Figure 93	NORTH LOS ANGELES COUNTY LAND USE	172
Figure 95	SAN FERNANDO VALLEY	175
Figure 97	SAN FERNANDO VALLEY DAILY TRIPS	177
Figure 98	SAN FERNANDO VALLEY EMPLOYMENT DENSITY	177
Figure 99	SAN FERNANDO VALLEY POPULATION DENSITY	178
Figure 100	SAN FERNANDO VALLEY LAND USE	178
Figure 102	SAN GABRIEL VALLEY	181
Figure 104	SAN GABRIEL VALLEY DAILY TRIPS	183
Figure 105	SAN GABRIEL VALLEY EMPLOYMENT DENSITY	183
Figure 106	SAN GABRIEL VALLEY POPULATION DENSITY	184
Figure 107	SAN GABRIEL VALLEY LAND USE	184
Figure 109	SOUTH BAY CITIES	187
Figure 111	SOUTH BAY CITIES DAILY TRIPS	189
Figure 112	SOUTH BAY CITIES EMPLOYMENT DENSITY	189
Figure 113	SOUTH BAY CITIES POPULATION DENSITY	190
Figure 114	SOUTH BAY CITIES LAND USE	190
Figure 116	WESTSIDE CITIES	193
Figure 118	WESTSIDE CITIES DAILY TRIPS	195
Figure 119	WESTSIDE CITIES EMPLOYMENT DENSITY	195
Figure 120	WESTSIDE CITIES POPULATION DENSITY	196
Figure 121	WESTSIDE CITIES LAND USE	196

Maps

Figure 3	L RTP COMMUNITY OUTREACH	10
Figure 16	TRAVEL DEMAND MODEL AREA	75
Figure 19	2020 PLAN TRANSIT PROJECTS MAP	79
Figure 21	2020 PLAN HIGHWAY PROJECTS MAP	81
Figure 23	METRO 2017 HIGHWAY NETWORK	83
Figure 33	PEAK PERIOD HOME-TO-WORK TRIP PRODUCTIONS BY SUBREGION, 2017	95
Figure 34	PEAK PERIOD HOME-TO-WORK TRIP PRODUCTIONS BY SUBREGION, 2047	95
Figure 35	PEAK PERIOD HOME-TO-WORK TRIP ATTRACTIONS BY SUBREGION, 2017	97
Figure 36	PEAK PERIOD HOME-TO-WORK ATTRACTIONS BY SUBREGION, 2047	97
Figure 37	DAILY TRIP PRODUCTIONS BY SUBREGION, 2017	99
Figure 38	DAILY TRIP PRODUCTIONS BY SUBREGION, 2047	99
Figure 39	DAILY TRIP ATTRACTIONS BY SUBREGION, 2017	101
Figure 40	DAILY TRIP ATTRACTIONS BY SUBREGION, 2047	101
Figure 49	2017 ACS MEDIAN ZONAL INCOME IN QUINTILES	127
Figure 50	TRANSIT-DEPENDENT POPULATION	129
Figure 51	AFRICAN AMERICAN POPULATION	130
Figure 52	HISPANIC OR LATINO POPULATION	131
Figure 53	ASIAN/PACIFIC ISLANDER POPULATION	132
Figure 59	LOS ANGELES COUNTY SUBREGIONS	143
Figure 60	ARROYO VERDUGO SUBREGION	145
Figure 62	ARROYO VERDUGO DAILY TRIPS	147
Figure 63	ARROYO VERDUGO EMPLOYMENT DENSITY	147

Introduction

The 2020 Long Range Transportation Plan Technical Document (Technical Document) is a companion document to the Los Angeles County Metropolitan Transportation Authority's 2020 Long Range Transportation Plan (LRTP). This technical document provides additional information regarding various technical components of the LRTP, including outreach efforts, priority areas, capital projects and programs, sustainability, equity, financial modeling and assumptions, travel demand modeling and assumptions, performance analysis, and sub-regional profiles. For more information on LRTP recommendations, please refer to the LRTP, available under separate cover.

LRTP Overview

As the state-designated transportation planning and programming agency for LA County, Metro is required to adopt and maintain an LRTP to satisfy federal and state funding requirements (per enabling legislation California Public Utilities Code §130050 et seq). Metro develops a LRTP for LA County. The LRTP is periodically updated to maintain at least a 20-year planning horizon, and to reflect changes since the last Plan was adopted. The 2020 LRTP extends the planning horizon from the 2009 LRTP by an additional seven years, from 2040 to 2047. It also updates the LRTP for a variety of factors, such as socio-economic data, financial conditions, changes in travel patterns, and the inclusion of additional projects and programs. The LRTP is a living document which can be amended through Board action as regional needs and priorities change.

LRTP Development

In developing the LRTP, Metro coordinated with a wide range of partners representing a variety of interests. Metro conducted community outreach meetings for the LRTP at locations throughout the County, and provided an opportunity for public review through a 45-day comment period (see Chapter 2 for more details). Metro also coordinated with its transportation partners, including the sub-regional agencies, the Southern California Association of Government (SCAG), Caltrans, Metrolink, and municipal and local transit operators. Finally, the LRTP benefited from regular consultation with the Metro Policy Advisory Council (PAC).

While the development of this LRTP occurred primarily over the past year, it is built on a multi-year process to engage community members and stakeholders. In 2013, the Metro Board directed that a holistic countywide "Mobility Matrices" approach be developed to assess the county's transportation needs. In February 2014, the Board approved the approach whereby subregional working groups would develop goals for analyzing unmet county transportation needs. The process ultimately resulted in a project list that met the expected revenue generated by the tax measure, and more importantly, it emerged as a plan from the people for the people. In November 2016, Measure M made history when 71.15 percent of LA County voters approved the ballot measure to fund an array of transportation projects and programs. The result was a half-cent sales tax with a no sunset provision and the indefinite extension of the existing half cent tax (Measure R) set to expire in 2039.

Together, Measures M and R provide LA County with a 40-year capital expansion program described in Section 4 of this document. However, the LRTP provides a 30-year vision for Metro to move beyond the capital program and develop bold policies and programs to transform mobility in LA County.

Document Contents

This technical document builds upon the LRTP by providing extended content in several topic areas with the following sections:

Outreach Summary

This chapter highlights the processes involved in public outreach and stakeholder engagement as a part of the LRTP.

Priority Areas

This chapter organizes Metro's projects and programs into the LRTP's four priority areas (Better Transit, Less Congestion, Complete Streets, Access to Opportunity) and takes a deep dive into Metro's sustainability and equity programs.

Financial Model and Assumptions

This chapter describes the financial model and analysis that supports the LRTP.

Travel Demand Model and Assumptions

This chapter describes the travel demand model and assumptions used to assess the performance of the LRTP.

Performance Measures

This chapter summarizes transportation system performance in LA County with the improvements recommended in this LRTP.

Subregional Profiles

This chapter describes each of Metro's nine subregions, their transportation facilities, land use, demographics, and major projects and programs.

Outreach Summary

Public engagement and stakeholder outreach are an integral part of the Long Range Transportation Plan (LRTP) update. It is done to guarantee that Metro is inclusive and responsive to its constituents, while ensuring responsible and transparent stewardship of public funds. The LRTP's Public Participation Plan Framework, which was presented to the Board in November 2017, outlined key principles, goals, and established a timeline for up to three rounds of engagement activities. Engagement activities took place across all of the nine LA County subregions.

This outreach effort was named “Our Next LA*” which is meant to illustrate that Metro values collaboration with our partners and constituents. The understanding of ‘LA’ in this case is that it is a diverse collection of distinct neighborhoods and cities throughout the County of Los Angeles that Metro serves. The outreach was guided by and centered in Metro’s Equity Platform which calls on Metro to ‘Listen and Learn’ as one of its four pillars.

The engagement process can broadly be defined by three distinct steps. The first round, named Baseline Understanding, was an open listening session meant to learn how stakeholders move through the county, what hurdles they might encounter, and how they think Metro might best solve transportation challenges in the county. The second round, the Values Framework, asked participants to rank the five priorities Metro heard most often in the first round of outreach. The last round is the culmination of the previous rounds of outreach and resulted in the release of the Draft LRTP Update to the public. The LRTP reflects all of the voices we heard throughout the outreach process and how Metro is addressing the public’s concerns.

Figure 1

Public Outreach Process

Phase 1	Baseline Understanding – Opening Listening	Summer 2018
Phase 2	Values Framework – Respond to What We Hear	Winter 2019
Phase 3	Draft LRTP – Public Review	Summer 2020

Phase 1 – Baseline Understanding

The first phase, named Baseline Understanding, was an open listening session meant to learn how people move through the county, what hurdles they encounter, and how they think Metro might best solve transportation challenges in the county. This initial round of outreach began in June 2018 where Metro used surveys, interviews, and pre-printed Post-It notes to ask the participants at public events what their visions or priorities were for the future of their community. Metro attended more than 52 community events, including health fairs, cultural events, open streets events, farmers markets, back to school giveaways, food fairs and more.

Phase 1 of outreach included the following strategies:

- > **Surveys** – The surveys collected information related to participant’s travel preferences, including usage of public transportation, and general interest in transportation options within LA County. The collection methods described were purposefully open-ended in order to collect the concerns of the public without having them feel limited by multiple choice options. Participants were also encouraged to complete post-it forms that asked the one thing they wanted realized for their future communities.
- > **In-Depth Interviews** – Beyond collecting surveys from participants, Metro also conducted more in-depth interviews with select and willing participants to further probe their thoughts and travel behavior. These interviews supplemented the surveys Metro collected and increased opportunities for Metro listening to unfiltered ideas in detail.
- > **Targeted Employer Outreach** – Metro also made in-roads with large employers throughout LA County. These employers ran the gamut of fields, including universities, healthcare, technology, and industrial companies. In total, Metro made contact with 31 employers, with a workforce of approximately 400,000 employees within LA County. Figure 2 is a sample of employers contacted, with estimated numbers for their workforce.
- > **Advisory Groups** – Metro also made presentations to various councils and committees within the agency, including the Metro’s Citizens Advisory Council (CAC), the Technical Advisory Committee (TAC), and the Policy Advisory Council (PAC), to ensure our diverse stakeholders had the opportunity to discuss their issues and ideas

regarding this engagement process. The PAC was established in 2017 to help guide the development of the LRTP, as well as Measure M guidelines. In order to be balanced and broadly representative, the PAC consists of local jurisdictions with all nine Councils of Government (and/or subregions), local transportation providers and agency partners, as well as transportation consumer groups, including community-based organizations and advocates.

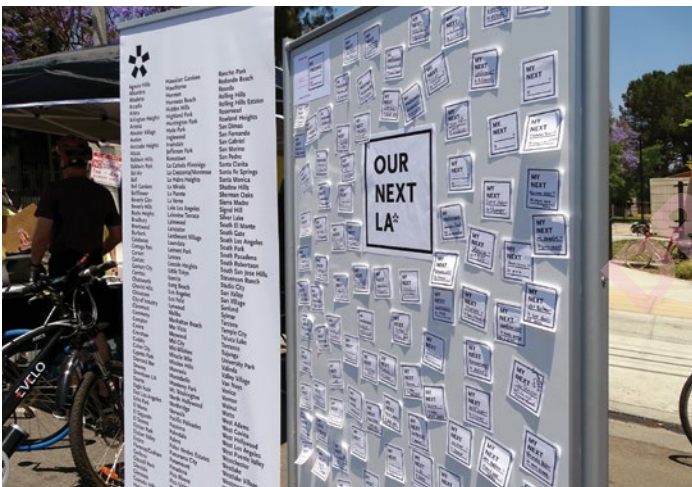
Through all channels of outreach, participants were invited to visit the *OurNext.LA* website to learn more about the process and to sign up to receive information regarding the upcoming outreach rounds and, ultimately, the release of the LRTP.

As a result of the outreach in Phase 1, Metro attended more than 50 events, gathered over 20,000 surveys, and spoke to over 40 partners. These events, surveys, and partners were spread throughout the county, to capture the needs from geographic and socioeconomically diverse regions within the county.

Figure 2

Large Employer Outreach

EMPLOYER	NUMBER OF EMPLOYEES
County of Los Angeles	107,400
University of California, Los Angeles	65,600
City of Los Angeles	61,900
Kaiser Permanente	37,400
University of Southern California	21,000
Northrop Grumman Corp.	16,600
Cedars-Sinai Medical Center	14,900
Los Angeles Community College District	13,200
Walt Disney Co.	13,000
NBCUniversal	12,000
California State University, Long Beach	8,800
California Institute of Technology	8,700
Children’s Hospital Los Angeles	5,700
Compton Unified School District	3,600
Pasadena Area Community College District	3,500
City of Santa Monica	3,000
Montebello Unified School District	1,900



MY NEXT
Whittier **
is PUBLIC TRANSIT FRIENDLY

MY NEXT
Sierra Madre **
is more transit!

MI PRÓXIMO
Panorama City **
es más bicicletas

MY NEXT
South Gate **
is bike friendly

MY NEXT
Hacienda Heights **
is less traffic!

MY NEXT
Koreatown **
is more housing!

MY NEXT
Stevenson Ranch **
More aid for IS homeless

MY NEXT
Norwalk **
is Pro small business

Phase 2 – Values Framework

The second Phase, the Values Framework, began in January 2019 alongside the NextGen Bus Study workshops held throughout LA County. Metro asked participants to rank the five priorities Metro heard most often in the first phase of outreach—those being better transit, less congestion, more innovation, more affordable and inclusive, and safer more complete streets.

As in the prior phase of outreach, online presence continued to be a key component. In this round, Metro launched a Facebook and Instagram advertisement campaign, and utilized the preexisting Metro Twitter account to direct and encourage the public to rank their priorities through an online tool, available in English and Spanish. Other forms of advertisement for this round included small, neighborhood billboards and car cards, which are posters placed in Metro buses.

To elicit more input, Metro reached out to some of the first round's large employers, jurisdictions, municipal operators, and others to ask them to share the ranking exercise, as well as reached out to the faithbased community.

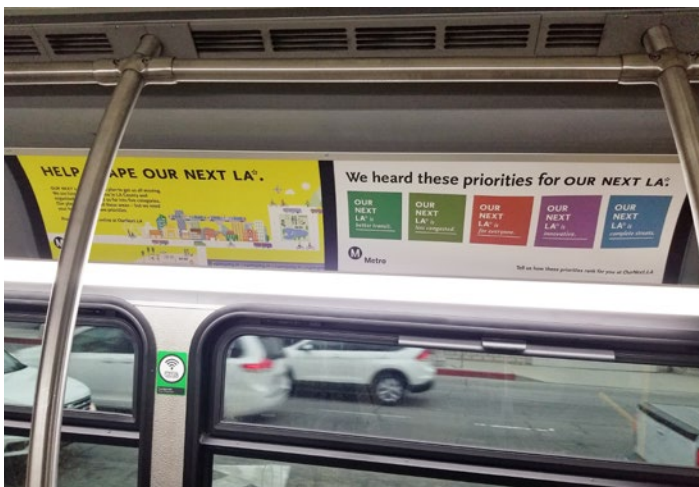
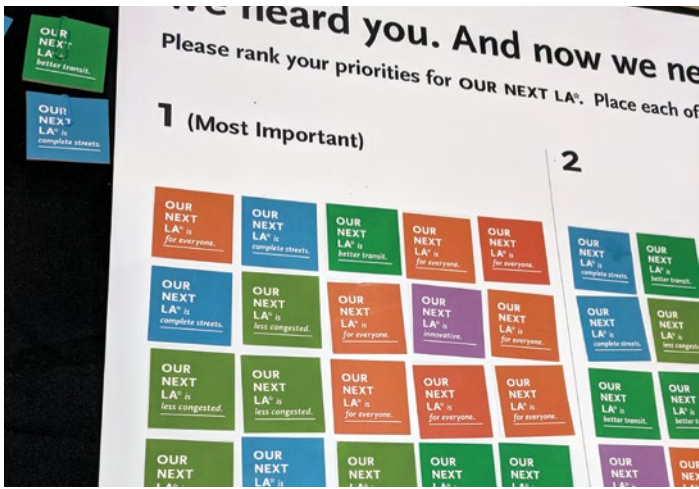
During this second phase, Metro attended approximately twenty-five events, attended twenty-eight public meetings, gathered over 48,000 priority rankings and spoke to 200 Community Based Organizations across all nine subregions.

Figure 3

LRTP COMMUNITY OUTREACH



Outreach locations include Phase 1 and Phase 2.



Phase 3 – Draft LRTP

In the third phase, we released the completed the Draft LRTP for public comment. The Draft LRTP was developed to reflect input gathered throughout the entire process. We asked for community input on the draft plan via several avenues:

- > Telephone Town Hall
- > Webinar
- > Social Media Posts
- > *OurNext.LA* Website
- > *Metro.net* Website
- > Emails
- > Postcards

As a result, the LRTP received more than 130,000 visits to *OurNext.LA* during the draft public comment period from stakeholders reviewing plan details. Metro also received 188 comments on the draft LRTP. With this robust feedback, the final LRTP was able to better reflect the needs and priorities of Metro’s communities.

DRAFT

Figure 4

Outreach Tactics

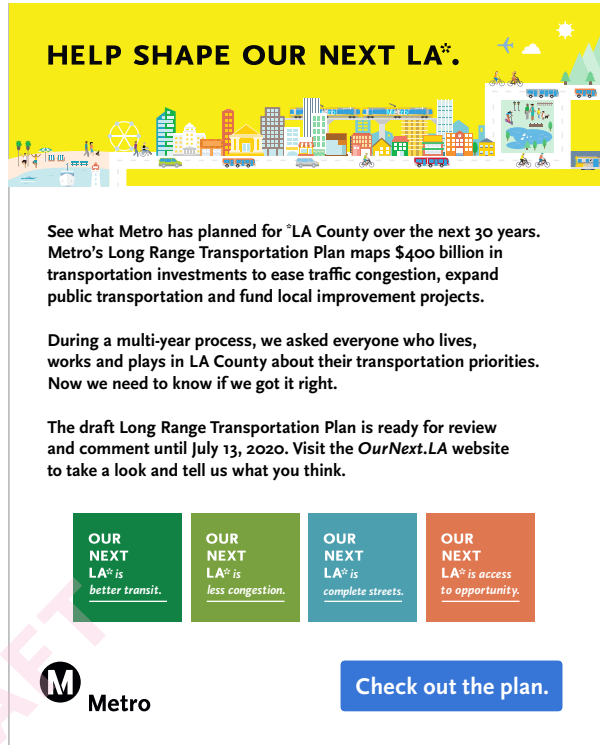
	PHASE 1	PHASE 2	PHASE 3	TOTAL
Public events	52	25	2*	79
Public meetings	10	28	13*	51
Surveys	20,645			20,645
Priority Rankings		48,759		48,759
Partners (inc. large employers)	41	18		59
Emails		16,200	2,448,430	2,464,630
Postcards			23,521	23,521
Media impressions **		6,540,080	15,255,546	21,795,626
<i>OurNext.LA</i> website visits		41,935	134,197	176,132

* Virtual or online event

** Media includes advertising and social media



Rail Poster



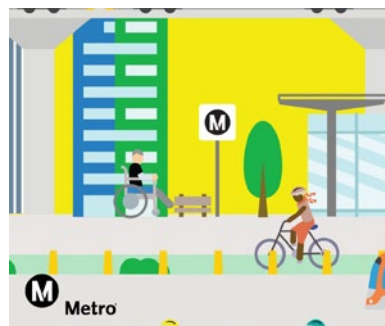
E-Blast



Postcard Front



Postcard Back



Animated Digital Ad

Priority Areas

The LRTP public outreach process resulted in the region's desires being distilled into four priority areas:

- > Better Transit
- > Less Congestion
- > Complete Streets
- > Access to Opportunity

Metro's expansive programs, policies, and partnerships fit into these four areas, guiding Metro towards a vision of the future that reflects the communities we serve. Better Transit projects and programs aim to expand transportation options and improve service. Less Congestion encompasses programs and highway projects that reduce or are expected to reduce the time people spend in traffic. Programs and projects to maintain and improve upon street safety for all users and convenience fall under the Complete Streets Priority. Access to Opportunity includes Metro's efforts to invest in communities to create jobs and housing near transit.

The LRTP identifies key strategies and actions under each of these four priority areas. For each action, the LRTP indicates whether the action is occurring now (ongoing), soon (in the next 5-10 years), or in the future (more than 10 years) and the goal area (build, manage, maintain, partner). While the LRTP embeds Metro's projects and programs into key strategies and actions, the following section expands on Metro's strategies and actions through a robust overview of our key projects, programs, plans, and policies. Although sustainability and equity are woven throughout the four priority area sections, this chapter also takes a deeper dive into Metro's sustainability and equity programs.

Better Transit



Less Congestion



Complete Streets



Access to Opportunity



DRAFT

Better Transit

Better transit means faster, more frequent, secure and reliable public transportation, with more options and better customer experience. Since 1990, the Metro Rail system has become one of the largest urban rail systems in the United States. Metro operates a light and heavy rail system that provides more than 101.5 miles of revenue service track and 104 rail stations. Today, the Metro Rail system moves nearly 310,000 passengers each weekday. Figure 5 summarizes the existing rail lines and transitways and FY 2019 boardings.

Metro also operates a bus fleet of 2,308 vehicles that cover more than 1,479 square miles of service area. The estimated weekday ridership was nearly 870,000 in FY2019. Metro's existing bus network consists of the following route types:

- > **Metro Local (100-299)** – buses stop on average every two blocks.
- > **Metro Limited (300-399)** – modified local buses with wider stop spacing- that mostly operate during weekdays to supplement local service on major corridors that do not have Rapid service.
- > **Metro Express (400-500)** – travel routes on freeways for longer distances with fewer stops and have a higher premium (e.g., express routes between regional destinations and Downtown Los Angeles, Dodger Stadium Express from Union Station runs during selected special events , etc.)
- > **Metro Shuttles & Circulators (600-699)** – local shuttles and circulators connecting regional destinations (LAX, college and university campuses, medical facilities, etc.) to Metro rail stations or bus transfer hubs.

Figure 5
Existing Rail Network

LINE NAME	OPEN YEAR	MILES (MIN)	STATIONS	ESTIMATED WEEKDAY RIDERSHIP (FY19)
A (Blue) Line*	1990	21.3	22	47,517
B (Red) Line	1993	16.4	14	
D (Purple) Line	2006	6.4	8	137,201
C (Green) Line	1995	19.5	14	30,218
E (Expo) Line	2012	15.2	19	61,590
L (Gold) Line	2003	29.7	27	51,289
All Bus				867,326
TOTAL Weekday Ridership				1,195,141

*Note: Because the southern half of the Blue Line Stations were closed in part of 2019, Blue Line estimates only account for the northern half of the line and are solely based on APC counts from the trains. All other rail line estimates are based on manual rail ride checks.

- > **Metro Rapid (700-799)** – faster buses featuring transit signal priority and with fewer stops, only at major intersections. LA Metro currently operates 20 Metro Rapid lines traversing all portions of LA County. This format for service is proposed to be merged with Metro Local service to provide a single very high frequency transit service on major corridors, to better balance speed and accessibility for more competitive overall travel times. The only exceptions are three corridors (Wilshire, Vermont, Van Nuys-Westside) with very high demand where Rapid service will be maintained pending the opening of planned or under construction rail or Bus Rapid Transit service.
- > **Metro Busways** – bus rapid transit lines (BRT) that run on dedicated busways (e.g., Metro G [Orange] and J [Silver] lines).

In addition to Metro’s local bus operations, transit services in LA County are provided by 26 municipal operators. These operators provide services countywide outside the urban core and are an integral part of LA County’s transit network. The non-Metro operators collectively manage a fleet of more than 1,911 vehicles. Metro and the County’s municipal operators carried 273 million boardings annually in FY19.

Metro is continuing construction of the largest public works program in America by focusing on rail projects which will expand and extend the existing rail network alongside new Bus Rapid Transit (BRT) projects that will focus on congested corridors. The 2020 LRTP will expand the Metro Rail network from 104 rail stations to over 200 stations covering nearly 240 miles. Investments in transit over the next 30 years include the construction or improvement of 22 transit corridors and the addition of 106 miles of fixed guideway transit.

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Transit Investment

Funded by Measure M and Measure R, the transit investments at Metro are listed in Figure 6.

Figure 6

Transit Investment

TRANSIT PROJECT	\$ IN MILLIONS	OPEN YEAR	DESCRIPTION
Crenshaw/LAX Transit Project (LRT)	2,058	2021	The Crenshaw/LAX Transit Project, currently in construction, will extend from the existing E Line (Expo) at Crenshaw 8.5 miles southwest to the C Line (Green). With opening expected in 2021, the Crenshaw Line will add eight new stations, including one at the Automated People Mover currently under construction at the Los Angeles International Airport (LAX).
Regional Connector Transit Project (LRT)	1,756	2022	This project will allow passengers to transfer between the A (Blue), E (Expo), B (Red) and D (Purple) Lines, bypassing the need to change trains at Union Station.
D Line (Purple) Extension (HRT)			The Purple Line Extension will provide a high-capacity, high-speed alternative for commuters to travel between downtown Los Angeles and the Westside beyond the existing terminus at Wilshire/Western. The project is divided into three sections.
Section 1 (Wilshire/Western to Wilshire/La Cienega)	2,779	2023	Section 1 will add three new stations and 3.92 miles of new rail to Metro's Rail system. The three new stations will be located at Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. The project will extend the current Purple Line from Koreatown through Miracle Mile.
Section 2 (Wilshire/La Cienega to Century City/Constellation)	2,441	2026	Section 2 includes 2.59 miles of additional tracks to Metro's Rail system and two new stations at Wilshire/Rodeo and Century City/Constellation. Construction for Section 2 began in 2018. The extension will continue the Purple Line from Miracle Mile through Beverly Hills and into Century City.
Section 3 (Century City/Constellation to Westwood/VA Hospital)	3,224	2027	Section 3 will add 2.56 miles of new rail to Metro's Rail system. The two new stations will be added at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property. The project began construction in 2019 and is anticipated to open for operations in 2027.
Airport Metro Connector/g6th Street Station/Green Line Ext LAX	626	2024	The Airport Metro Connector will provide a connection along the Crenshaw/LAX Line to a future Automated People Mover (APM) to be built and operated by Los Angeles World Airports (LAWA). This will serve as a transit "Gateway" to LAX. The AMC Transit Station is envisioned to include the following basic components: three at-grade LRT platforms to be served by the Crenshaw/LAX Line and an extension of the Metro Green Line, a bus plaza and terminal facility for Metro and municipal bus operators, a bicycle hub with secured parking, a pedestrian plaza, a passenger vehicle pick-up and drop-off area, and a Metro transit center/terminal building ("Metro Hub") that connects passengers between the various modes of transportation.

L RTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final mode, alignments, and station locations to be confirmed during environmental processes. Estimated open year is a three-year range.

*Includes projects through 2057, the horizon year of Measure M

TRANSIT PROJECT	\$ IN MILLIONS	OPEN YEAR	DESCRIPTION
North San Fernando Valley Transit Corridor (BRT)	207	2025	The North San Fernando Valley (NSFV) project is a proposed new 18-mile BRT line that would enhance existing bus service and increase transit system connectivity. The project will travel primarily east-west across the northern San Fernando Valley, potentially connecting to the East San Fernando Valley Transit Corridor Project, the Chatsworth Metrolink Station, and the North Hollywood Metro G/B (Orange/Red) Line Station.
G Line (Orange) Improvements	314	2025	The nearly 18-mile long Metro Orange Line (MOL) Bus Rapid Transit (BRT) Improvements Project includes building up to 35 railroad-style gates at intersections along the Orange Line and constructing grade separated structures at Van Nuys and Sepulveda Blvds. The project seeks to improve bus speeds, safety, and provide a critical link in the transportation network Metro is building to transform the San Fernando Valley and improve regional mobility.
North Hollywood to Pasadena Transit Corridor (BRT)	315	2026	The North Hollywood (NoHo) to Pasadena BRT Corridor extends approximately 16 to 18 miles from the North Hollywood Metro Red/Orange Line Station to Pasadena City College. The project aims to build a high-quality bus rapid transit (BRT) line that will connect the San Fernando and San Gabriel Valleys. It will traverse the communities of North Hollywood and Eagle Rock in the City of Los Angeles, as well as the Cities of Burbank, Glendale, and Pasadena. Current plans estimate 21 to 23 potential stations along the corridor.
East San Fernando Valley Light Rail Project (LRT)	1,568	2027	A 9.2 mile high-capacity transit project with 14 stations connecting the Orange Line Van Nuys stations to the Sylmar/San Fernando Metrolink Station. This project is in the design phase.
Gold Line Foothill Extension to Claremont (LRT)	1,571	2028	This project will extend the existing Gold Line to Claremont, providing a 45 or 75 minute ride to Pasadena or Los Angeles, respectively. This project will serve many regional destinations as well as regional parks and two dozen colleges and universities. The project is in the design-build construction phase.
Vermont Transit Corridor	524	2028	Adds a 12.5-mile high capacity transit corridor from Hollywood Blvd to 120th St. Measure M includes a provision for a potential future conversion to rail based on ridership demand.
Antelope Valley Line Capacity and Service Improvements Program	221	2028	Builds four rail infrastructure improvement projects (Balboa Double track extension, Brighton to McGinley Double track, Canyon to Santa Clarita Double track and Lancaster terminal improvements) on the Antelope Valley Line that would enable hourly service to Palmdale and Lancaster and 30 minute bi-directional service to Santa Clarita.
West Santa Ana Branch Transit Corridor (LRT)	1,250	2028	The Project will consist of 12 stations and is a 19-mile corridor that will connect southeast LA County to downtown Los Angeles, serving the cities and communities of Artesia, Cerritos, Bellflower, Paramount, Downey, South Gate, Cudahy, Bell, Huntington Park, Vernon, unincorporated Florence-Graham community of LA County and downtown Los Angeles.
	5,061	2041	
C Line (Green) Extension to Torrance	1,167	2030	Extension of the light rail line from its current terminus at the Redondo Beach Station to the Torrance Transit Center at Crenshaw Blvd. Consisting of up to 2 stations and 4.7 miles, the project is under reinitiated environmental phase.

TRANSIT PROJECT	\$ IN MILLIONS	OPEN YEAR	DESCRIPTION
Sepulveda Transit Corridor (Mode TBD)			The Sepulveda Transit Corridor is described in two phases, with high-capacity transit service between the San Fernando Valley and the Westside in FY2033 and an extension to LAX in FY2057. The Valley-Westside portion of the project is identified for potential acceleration in time for the 2028 Olympic and Paralympic Games in Los Angeles (LA 2028).
Phase 2 – Valley to Westside	7,685	2033	
Phase 3 – Westside to LAX	10,587	2057*	
Eastside Extension Phase 2 Transit Corridor (1st Alignment) ¹	4,409	2035	Extension of the Gold Line Eastside light rail corridor beginning at the existing L (Gold) Line Atlantic Station eastward.
Crenshaw Northern Extension (LRT)	4,744	2047	This project extends the future Crenshaw Line Rail north from the Expo/Crenshaw Station to Hollywood at the B (Red) Line Rail Hollywood/Highland Station.
Lincoln Bl (BRT)	220	2047	The Lincoln Boulevard BRT links the Airport Metro Connector to the E Line (Expo). The project could be converted to rail service at a later date if ridership demand outgrows the bus rapid service capacity.
SF Valley Transportation Improvements	257	2050	Improvements may include, but are not limited to, Transit Improvements, and I-210 soundwalls in Tujunga, Sunland, Shadow Hills and Lakeview Terrace.
C Line (Green) Eastern Extension (Norwalk) (LRT)	1,891	2052*	Extends the C Line (Green) 2.8 miles from Norwalk to the Norwalk/Santa Fe Springs Metrolink Station.
G Line (Orange) Conversion to Light Rail	4,069	2057*	The G Line conversion of the 18-mile bus rapid transit line to light-rail service.
Historic Downtown Streetcar	581	2057*	Builds a 3.8-mile streetcar along existing traffic lanes from 1st St to 11th St in downtown Los Angeles.
Eastside Extension Phase 2 Transit Corridor (2nd Alignment) ¹	8,707	2057*	Extension of the Gold Line Eastside light rail corridor beginning at the existing L (Gold) Line Atlantic Station eastward.

L RTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final mode, alignments, and station locations to be confirmed during environmental processes. Estimated open year is a three-year range.

¹Metro Board approved a separate feasibility study to be completed along SR-60 to identify potential mobility solutions and options in the short and long-term for the San Gabriel Valley.

*Includes projects through 2057, the horizon year of Measure M

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Better Transit Programs, Plans, and Policies

Beyond the physical expansion and upgrades to transit corridors, Metro continues improving transit through programs, plans, and policies. Better Transit actions include plans for the future bus and BRT system, new mobility programs, and Metro’s efforts to provide services that make transit more accessible to customers who face added barriers, such as people in need of paratransit services and women riders. Metro’s transit programs, plans, and policies are shown in Figure 7.

Figure 7

Better Transit Programs, Plans, and Policies

TRANSIT PROJECT	DESCRIPTION
Bus Rapid Transit Vision & Principles Study	This study will define standards for future Metro (and Metro funded) BRT projects. Along with the design criteria/guidelines, the BRT standards will assist and guide Metro and other municipal transit operators with the planning, design, and monitoring of an efficient and effective BRT system that helps support the creation of a world class bus system in LA County.
NextGen Bus Plan	In 2018, Metro began the process of reimagining our bus system to better meet the needs of current and future riders. The proposed plan improvements would double the number of frequent Metro bus lines; provide more than 80% of current bus riders with 15-minute or better frequency; create an all-day, every day service; ensure a one quarter-mile walk to a bus stop for 99% of current riders; and create a more comfortable and safer waiting environment. The “Transit First” approach would include capital projects that speed up buses (bus lanes and traffic signal priority, etc.), make bus stops more comfortable, expand all-door boarding and add even more frequent services, among other improvements. NextGen will be rolled out in coordination with the upcoming Metro Micro service, which will pilot an on-demand format for service, utilizing on-demand vans equipped with bicycle racks, to maintain and expand service coverage for existing and potential new riders in areas where there is lower-usage or nonexistent fixed route bus service today.
City-Run Transit Circulators (Local Return Program)	Local Return is the city’s share of the various transportation sales taxes. Proposition A, approved by voters in 1980, provides a 25% local return share of the fund to benefit public transit. Proposition C, approved in 1990, expanded the definition to provide for in-direct transit uses with a share of 20%. Measure R was approved in 2008 with a share of 15% and expands the definition even further to include public transportation uses. Measure M was approved in 2016 and provides a 17% share.
Complementary Paratransit (Access Services)	Access Services, a local public entity, is the Los Angeles County Consolidated Transportation Services Agency (“CTSA”) and administers the Los Angeles County Coordinated Paratransit Plan on behalf of the County’s 45 public fixed route operators (i.e., bus and rail). As required by applicable regulations, Access Paratransit service is available for any ADA paratransit eligible individual for any purpose to or from any location within ¾ of a mile of any fixed route bus operated by the LA County public fixed route bus operators and within ¾ of a mile around Metro Rail stations during the hours that the systems are operational.
Call for Projects	The Call for Project (CFP) process is a competitive grant program that co-funds new regionally significant capital projects. Various discretionary federal, state, and local transportation funds have been awarded by Metro to the most competitive projects through the CFP process. The process is typically held biennially in odd-numbered years, when funding is available. As funding needs are addressed throughout LA County, Metro will revisit the CFP process to determine financial feasibility and resources required to implement any future rounds.

TRANSIT PROJECT	DESCRIPTION
Regional Rail	Regional Rail plans, programs and implements certain commuter and intercity rail capital improvement projects along the Metro owned railroad right of way with partner agencies. Metro owns approximately 150 route miles of Class 1 commuter rail right-of-way with 152 at-grade crossings in LA County spanning up to Lancaster in the north, Chatsworth in the west and Claremont in the east. Regional Rail advances projects that improve regional mobility in LA County including modernizing Los Angeles Union Station to transform it into a World Class transit and mobility hub.
Transit Security and Law Enforcement	In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department.
Security Certification	As part of a continuing effort to build system-wide resiliency, Metro will be adopting the FTA's Security Certification Management Guidance (FTA C 5800.1) to ensure preparedness for all hazards, meeting 21st century threats, unique to transit systems. An enhanced security design criteria program will also be advanced to provide agency-wide guidance on best practices related to security protective measures. Collectively, these efforts will buy down risk and increase the ability of Metro to provide uninterrupted service to the community.
Emergency Security Operations Center (ESOC)	As the heart of transit-centered emergency management and coordination for the Southern California Region, this collaborative and interactive facility, replete with centralized security technologies will support 24 hour situational awareness and total enterprise security to detect, deter, delay and deny serious risks to the agency while providing daily security operation management of all Metro security functions. Supported by the Metro Security & Emergency Preparedness Plan (SEPP), Threat Vulnerability Assessments, Continuity of Operations Plans, this facility is the culmination of federal, state and local guidance to best prepare the Agency for the decade of large-scale events (i.e. Super Bowls, 2028 Olympics, etc.)
Homeless Task Force	In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH.
Transit Watch App	Metro utilizes a Transit Watch mobile application, which provides an easy way to report incidents on our trains or buses. The app allows the patron to report incidents and photos to the security dispatcher, allows for push notifications to all users, and in the future will provide a Spanish language option, GPS locating, and video uploads. If they choose, app users can remain anonymous when sending messages or filing a report. The new, Metro-developed app has the ability to push upgrades to our users seamlessly.
Metro Call Point	In response to the need for a consistent standard for communications equipment, Metro has developed a design solution 'Metro Call Point' units. The Call Point unit is intended to replace all existing, customer-facing P-TELEs, E-TELEs, and G-TELEs. These units support station safety and security, as well as passenger experience. The units will provide both information and emergency communication capability within public areas of the station, parking structures and plaza area for all Metro rail and BRT stations. A Call Point unit shall be placed adjacent to the Ticket Vending Machines (TVMs).

TRANSIT PROJECT	DESCRIPTION
Sexual Harassment Prevention	<p>In 2017, Metro partnered with Peace Over Violence to provide a 24/7 sexual harassment counseling hotline. The hotline, 1-844-Off-Limits (633-5464), is staffed by counselors with extensive experience counseling victims of sexual abuse in LA County. Metro has installed a video-based monitoring system in the operating cabs of each rail car. Metro uses this video-based system to supplement the random monitoring and enforcement of its operating rules, including rules and policies governing the use of electronic devices. Victims of sexual harassment will make contact with officers via LA Metro Dispatch or in person. Metro's Dispatch may be accessed through the Metro Transit Watch App.</p>
SCORE Program	<p>Metrolink's Southern California Optimized Rail Expansion (SCORE) program is an ambitious capital program that will upgrade Metrolink's system in time for the 2028 Olympic and Paralympic Games. LA Metro is a partner in this Southern California Regional Rail Authority Program. Metrolink is operated by the Southern California Regional Rail Authority (SCRRA) and serves Los Angeles, Orange, Riverside, San Bernardino, Ventura and North San Diego counties. SCRRA, a joint powers authority made up of an 11-member board representing the transportation commissions of Los Angeles, Orange, Riverside, San Bernardino and Ventura counties, governs the service.</p>
TAP mobile app	<p>Metro is currently upgrading its regional fare collection system that serves all 26 TAP agencies, including Metro. Upgrades include near real-time fare availability and the ability to pay fare with the tap of a smart phone using the Apple Wallet. Live system testing of the app is currently being performed on fareboxes, station validators, gates and TVMs in preparation for a 2020 launch of the Apple Pay functions. The Android platform will follow thereafter.</p>
Supportive Transit Parking Program Master Plan	<p>The Supportive Transit Parking Program Master Plan is an analysis of the supply and demand for parking at LA Metro facilities that is designed to assist LA Metro, its parking team, and Metro riders. The Program aims to ensure parking resources for transit patrons using a fee based model to control parking demand.</p>
Mobility as a Service (MaaS) Platform	<p>The Mobility-as-a-Service (MaaS) solution, called TAPforce uses the Salesforce platform and will provide a unified payment system across Metro and cloud-based partner programs. It includes the ability for cloud-based mobility services to connect to TAP payment. Fare can be paid for these services through various payment methods including credit/debit cards and cash.</p>
Transfer Design Guide	<p>Almost two-thirds (64%) of Metro riders transfer at least once as part of their journey. The Metro Transfers Design Guide serves as a useful resource to a variety of audiences including Metro, local and regional transit providers, local jurisdictions, developers, and community groups by providing guidance on what riders need to quickly and easily make decisions, safely move between transit vehicles, and comfortably wait for their next bus or train.</p>
Metro Systemwide Station Design Standards Policy	<p>In order to continue building and maintaining a state-of-the-art transit system, the Metro Board of Directors has determined that all future Metro Rail and Bus Rapid Transit (BRT) station designs shall follow a consistent, integrated systemwide design approach, with integrated public art and sustainable landscaping as variable elements. In 2012, following a thorough review and evaluation of other leading state-of-the-art transit systems and international best practices for transit station design, Metro developed the Systemwide Station Design Standards, using a modular system, or "kit-of-parts". These Standards are continually refined and updated to help ensure Metro stations provide an ever-improving customer experience.</p>
Understanding How Women Travel Study	<p>Metro was the first transit agency in the nation to study and report on women's unique mobility needs. This 2019 report found that women take more Metro trips, ride public transit more often and prioritize safety more often than men.</p>

TRANSIT PROJECT	DESCRIPTION
Gender Action Plan	Following the How Women Travel Study, Metro plans to develop a Gender Action Plan, which will pivot from research findings to actionable changes, ensuring that the agency's policies, programs and activities include a gender perspective and promote the considerations of gender issues at all levels.
Accessible Wayfinding (NaviLens)	Metro is testing wayfinding strategies for the visually impaired so they can more easily navigate the transit system. This technology, NaviLens, allows users to access arrival and departure information and descriptions of how to get to different platforms at Union Station from a mobile application. The pilot deployment of NaviLens technology has allowed visually impaired riders to feel more comfortable traveling alone and improved the experience for passengers with disabilities.
Link Union Station (Link US)	Link US plans to transform Union Station into a modern, world-class transit and mobility hub, offering an improved passenger experience to meet the region's long-term transportation needs. As a part of the project, Metro is coordinating with the California High-Speed Rail Authority (CHSRA) to accommodate future high-speed rail (HSR) service at LAUS. Phase A of the Link Union Station project, expected to be complete in 2025, will transform Union Station from a "stub-end" station to a "run-through" station by constructing a new viaduct structure over the US-101 freeway that accommodates up to ten (10) run-through tracks. Phase A will enable the initial operation of two (2) run-through tracks that connects to the mainline tracks on the west bank of the LA River to the south, as well as the mainline tracks on the west bank to the north via a new northern loop track. Phase A will also include early track, rail signal and communication work to the throat north of the station, acquisition of properties along Commercial Street, and utility relocation and street improvement work south of US-101.
Mobility On Demand (MOD) Pilot	In October 2016, Metro was awarded \$1.35 million from FTA to partner with a transportation network company (TNC) and explore the viability and benefit of using TNC services to provide first/last mile solutions. Metro is partnering with NoMad Transit LLC to provide first/last mile shared rides for trips originating and ending at North Hollywood, Artesia and El Monte Stations. Through this Mobility On Demand Pilot, Metro aims to open up the mobility benefits provided by TNCs to a larger group of users.
Metro Micro	Metro Micro is an innovative, new Metro transit service consisting of on-demand shared rides for short trips in vans that will be operated by professionally trained Metro employees. This service will start with an initial soft launch of 60 days in which it will be available 7 days per week and 12 hours per day. The service zones include Watts/ Willowbrook, LAWA/Inglewood, Northwest San Fernando Valley, Highland Park/ Eagle Rock/ Glendale, Altadena/ Pasadena/ Sierra Madre and UCLA/VA Medical Center/ Century City. Metro Micro is intended to supplement Metro's fixed route network in these areas by operating in zones with less bus and rail coverage. It can be taken to connect to another mode of transit or can be used to arrive at one's final destination. Additionally, vehicles will be equipped with bicycle racks. Riders will be able to order a Metro Micro vehicle through the upcoming app, a web browser, or by calling the customer service number.
Customer Experience (CX) Plan	Metro's CX vision is to always put you first – your safety, your time, your comfort, and your peace of mind – when we connect you to people and places that matter to you. The 2020 CX Plan will start by identifying the most pressing pain points from Metro customer research and focus on COVID recovery. In 2021, the Plan will dig into journey mapping and a review of best practices internationally.

Less Congestion

Less congestion means managing the number of vehicles using LA County streets and highways to reduce the amount of time buses, cars, and trucks spend stuck in traffic each day.

Metro, in partnership with the California Department of Transportation (Caltrans), advances the planning, environmental clearance, design and construction of major capital projects such as ExpressLanes, carpool lanes, freeway widening, interchange improvements, auxiliary lanes, freeway ramp improvements and other freeway capacity and operational improvement projects.

A key element of the Less Congestion Priority Area is the ExpressLanes Program, which in 2012, converted carpool lanes on I-110 and I-10 to ExpressLanes where single occupant vehicles (SOVs) are given the option to pay a variable fee to use the lanes and avoid delay, while carpoolers, vanpoolers and buses are permitted to use the lanes at no charge. Metro also works with local agencies to implement smaller scale improvements such as arterial widenings, intersection upgrades, ramp metering, traffic signal synchronization, corridor management and intelligent transportation systems (ITS) solutions.

Highway Investment

Funded by Measure M and Measure R, the highway investments at Metro are listed in Figure 8.

Figure 8

Highway Investment

HIGHWAY PROJECTS	\$ IN MILLIONS	ESTIMATED OPEN YEAR	DESCRIPTION
I-5 Capacity Enhancement (I-605 to Orange County Line)	1,410	2023	Constructs one carpool lane and one mixed-flow lane in each direction extending 6.4 miles through Cerritos, La Mirada, Santa Fe Springs and Norwalk. Includes interchange reconstruction and arterial modifications.
I-5 North Carpool Lanes – SR-134 to SR-170	637	2023	Adds a 10-mile segment of carpool lanes in each direction along the I-5 freeway to improve connections between the Burbank Media Center, Burbank Airport, Downtown Santa Clarita and Downtown Los Angeles. It includes the modification of the Empire Avenue intersection to a full diamond interchange, the re-alignment and elevation of the Metrolink commuter railroad adjacent to the freeway and the construction of a railroad grade separation.
Alameda Corridor East Grade Separations Phase II	1,685	2024	Constructs bridges or underpasses and improves the operation of other railroad intersections along a 35-mile stretch of the San Gabriel Valley.
Rosecrans/Marquardt Grade Separation	155	2024	Builds a grade separation at the intersection of Rosecrans/Marquardt in the City of Santa Fe Springs.
SR-71 Gap from I-10 to Rio Rancho Rd	379	2025	Adds three additional miles of SR-71 general purpose lanes in each direction, providing three continuous lanes in each direction to eliminate bottlenecks and improve traffic flow in sections where only two lanes exist today.
I-105 ExpressLanes from I-405 to I-605	530	2027	Caltrans in cooperation with Metro is evaluating alternatives to convert the existing high-occupancy vehicle (HOV) lanes to dynamically-priced, high-occupancy toll (HOT) lanes, also called ExpressLanes, in the eastbound and westbound directions of Interstate 105 (I-105) in LA County from the terminus of the existing HOV lanes west of Interstate 405 (I-405) in the City of Los Angeles to Studebaker Road in the City of Norwalk. The I-105 ExpressLanes Project limits include the installation of a new overhead tolling system and signage.
I-5 North Capacity Enhancements (SR-14 to Parker Rd)	679	2026	Constructs 14 miles of HOV lanes from SR-14 interchange to Parker Rd along the median. Other enhancements include extension of the northbound truck lane from Gavin Canyon undercrossing to Calgrove Bl off-ramp, addition of a southbound truck lane from Calgrove Bl on-ramp to SR-14, and addition of auxiliary lanes.

HIGHWAY PROJECTS	\$ IN MILLIONS	ESTIMATED OPEN YEAR	DESCRIPTION
Sepulveda Pass Transit Corridor (Ph 1) – ExpressLanes	311	2026	Metro is making strides to improve travel between the San Fernando Valley, the Westside, and Los Angeles International Airport (LAX). Measure M provides funding for ExpressLanes on the I-405 between the US 101 and I-10.
Highway Operational Improvements in Las Virgenes/Malibu subregion	175	2026	The Las Virgenes/Malibu highway operational improvements include widening, off-ramp, and overpass projects.
SR-57/SR-60 Interchange Improvements	422	2027	The SR-57/SR-60 Interchange Improvements are the next and final step in completing improvements to the 57/60 Confluence. Project improvements will stretch from just south of the northbound SR-57/SR-60 merge to eastbound SR-60 and south of the Golden Springs Drive overpass and along a portion of Grand Avenue from the City of Industry to the City of Diamond Bar.
I-10 ExpressLanes from I-605 to LA/San Bernardino Line	197	2028	The I-10 ExpressLanes Extension project is identified as a Tier I (near-term) priority in the 2017 Metro Countywide ExpressLane Strategic Plan. This project will convert existing and future HOV lanes to a single HOT lane in each direction across 34.2 lane miles.
SR-138 Capacity Enhancement	200	2028	Widens SR-138 by adding new lanes in each direction to the San Bernardino County line.
Highway Operational Improvements in Arroyo Verdugo subregion	170	2030	The Arroyo Verdugo highway operational improvements include projects such as Central Ave Improvements/Broadway to SR-134EB Offramp, Grandview At-Grade Rail Crossing Improvements, and SR-134/Pacific Ave Westbound Offramp Widening.
I-605 Corridor “Hot Spots” Interchange Improvements	2,639	2030	<p>Metro completed a Feasibility Study analyzing and identifying several “hot spots” along the SR-91, I-605, and I-405 corridors. These “hot spots” are chronic traffic congestion areas attributed to population/employment growth, increased trucking activity due to economic growth in the goods movement industry, and deficiencies in design, capacity, and operations of an older freeway system.</p> <p>The Early Action “hots spot” Projects (EAP) on I-605 are currently undergoing environmental assessment or final design approvals and will be constructed within the next 2-5 years.</p>
High Desert Multi-Purpose Corridor (ROW)	393	2034	The High Desert Corridor (HDC) project is considering construction of a new multi-modal link between State Route (SR)-14 in LA County and SR-18 in San Bernardino County. This project would connect some of the fastest growing residential, commercial and industrial areas in Southern California, including the cities of Palmdale, Lancaster, Adelanto, Victorville and the Town of Apple Valley.
I-405, I-110, I-105 and SR-91 Ramp and Interchange Improvements (South Bay)	1,413	2039	Constructs improvements in the South Bay to reduce traffic congestion. Examples include auxiliary lanes and ramp reconfigurations.

HIGHWAY PROJECTS	\$ IN MILLIONS	ESTIMATED OPEN YEAR	DESCRIPTION
Countywide Soundwall Construction	590	2040	SB-45 amended the California Street and Highway Code to transfer the programming and funding responsibilities of the Post 1989 Soundwall Retrofit Program to Regional Transportation Planning Agencies. In LA County, Metro assumed this responsibility. This program addresses the estimated 230 miles of freeways that are eligible for soundwalls within the County.
I-710 South Corridor Project (Ph 1 and Ph 2)	Ph 1 -5,697 Ph 2 - 1,512	Ph 1 – 2040 Ph2 - 2041	Evaluates modernization of the 710 freeway to improve truck/ traffic flows and safety on 18 miles of the freeway between the Ports of Los Angeles and Long Beach and the SR-60 freeway.
I-5 Corridor Improvements (I-605 to I-710)	2,036	2042	Adds one general purpose lane and one carpool lane in each direction, for a total of seven miles. When complete, there will be a total of five general purpose lanes and one carpool lane in each direction.
I-405/I-110 Int. HOV Connect Ramps & Interchange Improvements	504	2044	The new project provides direct connector ramps between ExpressLanes on the I-110 and I-405.
I-110 ExpressLanes Ext South to I-405/I-110 Interchange	599	2046	Extends the existing I-110 ExpressLanes southward one mile to the I-405 interchange while maintaining current general purpose lanes.
I-605/I-10 Interchange	1,287	2047	Interchange improvements in all directions (North, South, East and West).
SR 60/I-605 Interchange HOV Direct Connectors	1,055	2047	Improves interchanges from I-605 Rose Hills to I-10, and SR-60 from Santa Anita to Turnbull Canyon. Improvements include new auxiliary lanes, wider lanes and bridges, interchange connectors and ramp improvements.
I-405 South Bay Curve Improvements	883	2047	Adds segments of auxiliary lanes in each direction to improve traffic flow at on/off ramps for ten miles from Florence Av to I-110.
SR-710 North Corridor Mobility Improvement Projects	1,086	Varies	Since the inception of this project, Caltrans and Metro have been working in partnership to alleviate mobility constraints and traffic congestion in this study area that encompasses western San Gabriel Valley and the east/northeast area of Los Angeles. Metro is coordinating efforts with the various cities to begin implementation of the TSM/TDM projects identified in the Final EIR/EIS.

L RTP project costs may not match Measure M expenditure plan due to year of expenditure escalation and prior spending. Final alignments and limits to be determined during environmental processes.

Less Congestion Programs, Plans, and Policies

The capital projects to lessen congestion are supplemented by several programs, policies, plans, and partnerships. In this area, most actions fall into the categories of Transportation System Management, Intelligent Transportation Systems, Transportation Demand Management, and goods movement programs. Metro’s Less Congestion programs, plans, and policies are shown in Figure 9.

Figure 9

Less Congestion Programs, Plans, and Policies

TRANSIT PROJECT	DESCRIPTION
Transportation System Management (TSM)/ Intelligent Transportation Systems (ITS) Strategies	Transportation System Management (TSM) strategies are tools that use traffic engineering and operational measures to maximize capacity and reduce traffic delays on streets and highways. Local TSM improvements, which include signal synchronization and Intelligent Transportation Systems (ITS) strategies, are known to improve traffic flow, movement of vehicles and goods, air quality, and safety.
Arterial ITS	Metro funds approximately \$28 million per year in local arterial ITS projects which include improvements to traffic signals, signal synchronization, transit signal priority (TSP), and other ITS strategies. By using ITS on our local streets to address local traffic concerns and improve regional transportation corridor operational performance, overall mobility benefits are significantly enhanced. Arterial ITS projects are predominately funded by Prop C, Measure R, and Measure M through sub-regional programs.
Bus Signal Priority	Bus signal priority is a strategy that uses technology to communicate with the traffic signal at an intersection to request bus priority. Bus signal priority is currently being used on Metro’s Rapid Service, Culver City Bus, Torrance Transit, Foothill Transit, and Gardena (G-Trans). Metro wishes to expand this system to all major corridors, not just those with Metro’s Rapid service. Metro’s Countywide Signal Priority (CSP) Program is the largest implementation of multi-jurisdictional signal priority in the nation.
Arterial Performance Measurement	The Arterial Performance Measurement Program, known as Measure UP!, was developed to help local agencies understand how the arterial system performs historically and in real-time conditions. Performance measures such as vehicle hours of delay, person-hours of delay, travel-time variability, travel-time reliability, vehicle miles traveled, average travel speed, and average travel time are used when analyzing streets and freeways. Metro plans to implement an analysis tool that provides all performance measures for LA County.
The LA County Information Exchange Network (IEN)	The Los Angeles County Information Exchange Network (IEN) is a system that shares traffic signal information between agencies and facilitates the coordination of signal timing across jurisdictional boundaries. The IEN primarily shares second-by-second intersection data, incident and planned event tracking, and scenario management capabilities. IEN closely coordinates with Regional Integration of ITS (RIITS) to ensure regional transportation information sharing to support regional project needs.

TRANSIT PROJECT	DESCRIPTION
Regional Integration of Intelligent Transportation Systems (RIITS)	<p>RIITS is a program that enables the efficient compilation, management, and exchange of transportation information and systems. RIITS integrates and presents transportation information via data feeds to allow government agencies to exchange data with each other, and provides private companies access to the data to share with the public. RIITS consists of a physical network, operational system, and administrative processes. Information is currently exchanged with Caltrans Districts 7, 8, and 12, Los Angeles Department of Transportation, California Highway Patrol (CHP), Metro, Foothill Transit, LA County Department of Public Works and others. RIITS also houses applications such as Measure UP! and supports operational programs such as Southern California 511 and integrated corridor management (ICM) projects. A strategic planning exercise is currently underway to provide a 5-year roadmap for RIITS. New and emerging technologies and initiatives are being examined to determine how RIITS should be utilized and position. Items/activities such as Connected and Automated vehicles, Internet of Things, Big Data and other related impacts will be evaluated to best determine how RIITS can support, lead and/or champion these items.</p>
Integrated Corridor Management (ICM)	<p>ICM is an Intelligent Transportation System (ITS) strategy to manage non-recurring congestion along a corridor by utilizing advanced technologies and systems. ICM components include active monitoring of all transportation modes and facilities within the corridor, on and off the freeway, including ramp metering, traffic signal coordination, incident traffic management, advanced traveler information system, and other advanced technologies and techniques. Caltrans, Metro, and local agencies are piloting the I-210 Connected Corridor project that includes Integrated Corridor Management (ICM) strategies along I-210 in the San Gabriel Valley.</p>
Connect-IT: Los Angeles County Regional ITS Architecture	<p>Connect-IT (Los Angeles County Regional ITS Architecture) is a framework to guide the planning and deployment of ITS strategies. The framework helps local agencies and stakeholders to collaboratively operate its systems and address transportation issues and challenges in LA County. Connect-IT is accessed through a website for local agencies and stakeholders to view and add ITS projects and find information on ITS innovations and advanced technology.</p>
ITS Field Inventory Resource Sharing Tool (ITS FIRST)	<p>The ITS Field Inventory Resource Sharing Tool (ITS FIRST) is a website that is used to collect and share ITS assets and inventory information between local agencies. ITS assets include but are not limited to traffic signals, traffic controllers, CCTV cameras, fiber-optic communications, changeable message signs, and vehicle detection. This tool gives local agencies a database to maintain an inventory of ITS field assets and a mechanism to perform asset management.</p>
HOV (Carpool) Lanes	<p>In LA County, the HOV system includes freeway HOV lanes, HOV access ramps, park-and-ride lots, and transit stations along HOV corridors. Metro, in cooperation with Caltrans, is in various stages of planning, design and construction for additional HOV facilities across LA County.</p>
ExpressLanes	<p>In 2012, the carpool lanes on I-110 and I-10 were converted to ExpressLanes, where single occupant vehicles (SOVs) are given the option to pay a variable fee to use the lanes and avoid delay, while carpoolers, vanpoolers and buses are permitted to use the lanes at no charge. By using variable pricing based on the current usage level, traffic flow in the ExpressLanes is continuously managed to maintain speed and flow, providing a more reliable option.</p>
ExpressLanes Strategic Plan	<p>The 2017 Countywide ExpressLanes Strategic Plan builds on the success of the I-110 and I-10 Congestion Reduction Demonstration pilot program (also known as ExpressLanes) by establishing a vision for Metro to deliver a system of ExpressLanes for LA County using a network approach to maximize regional benefits. The network would be implemented in tiers approximately ten-years apart: Tier 1 – near-term (within 5-10 years), Tier 2 – mid-term (within 15 years), and Tier 3 – longer-term (within 25 years).</p>

TRANSIT PROJECT	DESCRIPTION
Traffic Reduction Program/ Congestion Pricing	Metro is conducting a Traffic Reduction Study (formerly called the Congestion Pricing Feasibility Study) to: determine if a traffic reduction program would be feasible and successful in LA County; determine where and how a pilot program with congestion pricing and complementary transportation options could achieve the project goals of reducing traffic congestion; and identify willing local partners for collaboration on a potential pilot program. The goals of the traffic reduction pilot program are to reduce traffic congestion, which makes it easier for everyone to get around, regardless of how they choose to travel, and provide additional high-quality transportation options.
Freeway Service Patrol	The Metro Freeway Service Patrol (FSP) is a congestion mitigation program managed in partnership with Metro, CHP, and Caltrans on all major freeways in LA County. It is the largest of its kind in the nation performing approximately 25,000 assists each month. The program utilizes a fleet of roving tow and service trucks designed to reduce traffic congestion by efficiently getting disabled vehicles running again, or by quickly towing those vehicles off of the freeway to a designated safe location.
LA SAFE	LA County Service Authority for Freeway Emergencies (LA SAFE) is the driving force and sponsor behind the Southern California 511 program and the Kenneth Hahn Callbox system. The goal is to help improve mobility and traffic in the LA County region by giving drivers the tools they need to travel safely and efficiently.
Southern California 511	511 was deployed in June 2010 consisting of an automated Interactive Voice Response (IVR) phone service and a website (Go511.com). The service provides users with real-time traffic information as well as transit, rideshare, and other related information. Since the deployment in June 2010, the system has supported over 18,000,000 users and has undergone a number of changes, such as the addition of real-time transit and parking information, and the deployment of a mobile app (go511). In addition to the traveler information services, 511 also allows callers to request motorist assistance similar to using a roadside call box.
The Kenneth Hahn Callbox System	The Kenneth Hahn Callbox System is comprised of over 1,000 callboxes installed throughout LA County freeways. The call box system was established to provide motorist aid service to the public and now acts as a safety net for motorists. An average of over 250 calls per month are generated from the callbox system. The Los Angeles County SAFE is the largest and most active motorist aid callbox system in California.
Los Angeles County Goods Movement Strategic Plan (Draft 2020)	The Los Angeles County Goods Movement Strategic Plan (2020) strives to achieve a comprehensive and holistic approach to addressing a multitude of interconnected challenges so that LA County will grow and thrive while balancing goals, including the efficient and effective flow of goods to support economic sustainability and prosperity. To achieve the goals, goods movement stakeholders across the County collaborated to provide a framework to evaluate LA County's freight competitiveness.
Goods Movement Technology	Metro uses ITS and advanced technologies to improve the movement of goods in and out of the Ports of Long Beach and Los Angeles. Goods movement technology projects have included truck platooning, drayage and container efficiency, and freight traveler information.
Clean Truck Program	At its January 2020 meeting, Metro Board passed Motion 8.1 directing staff to develop 710 Clean Truck Program as an Early Action Item under both the Goods Movement Strategic Plan (Plan) and I-710 South Corridor Project. The Program includes \$50 million in Metro-controlled funding sources as seed funding for the 710 Clean Truck Program.
Transportation Demand Management (TDM)	Transportation Demand Management (TDM) refers to strategies that increase transportation system efficiency and eliminate solo driver trips. Getting people out of their cars or encouraging forms of travel other than solo driving produces benefits ranging from increased travel efficiency, cost benefits, travel safety, and health benefits to helping reduce traffic congestion, reduce pollutants, and increase transit ridership. TDM often comprises a program of information, encouragement, and incentives to optimize the use of all modes in the transportation system.

TRANSIT PROJECT	DESCRIPTION
Metro Regional TDM Program	Metro's Regional TDM Program is a countywide transportation demand management toolkit that encourages and supports local jurisdictions in initiating, developing, and implementing their own TDM goals and initiatives. The TDM Toolkit and corresponding website is in development and will be available to all eighty-nine cities in LA County in early 2020. The website will promote TDM strategies by coordinating local TDM objectives and creating a comprehensive marketing strategy.
Regional Rideshare/Shared Mobility & Implementation	Metro, through policy, programming, advocacy, and education, is helping to develop a shared mobility resource. Some of the program's core functions involve assisting Employee Transportation Coordinators (ETC) in meeting the Southern California Air Quality Management District's (SCAQMD) Rule 2202 Employee Commute Reduction Program (ECRP). The program promotes implementing congestion management strategies by encouraging employees to use alternatives to single occupancy vehicles such as: carpooling, vanpooling, transit ridership, biking, and walking.
Carpooling Program	Carpooling is an inexpensive and effective travel option and involves finding nearby commuters to share the ride. Metro offers ride-matching services to find local SoCal residents looking to share the ride. User services involve finding someone in your area to match your commute trip. Metro also partners with the Orange County Transportation Authority (OCTA) and Ventura County Transportation Commission (VCTC) in RideMatch, a ridesharing service that matches individuals with similar commutes interested in ridesharing.
Metro Vanpool Program	Metro operates one of the largest publicly funded vanpool programs in the country. Metro provides coordination, administration support, and a financial subsidy for commuters and a convenient mobility option to getting around LA County, especially in areas less served by transit options.
Car Share Program	Metro partners with qualified car share companies to provide an effective first and last mile option for communities that need affordable car sharing alternatives at Metro-owned park-and-ride lots. The program includes designated parking spaces at various transit stations' park and ride facilities, allowing patrons to easily locate and pick up vehicles to use for anything from local errands to weekend getaways. This program provides ways/means to improve customer service and transit connection experience with more mobility options for transit patrons.
Parking Management	Metro's Parking Management Program was developed to enhance the transit rider's experience by more closely managing anticipated parking demand. Parking spaces at stations with paid lots are prioritized for transit customers through the use of a TAP-based rider verification system, which works to retain parking resources for Metro patrons. To make parking availability more transparent, Metro has also implemented the Parking Guidance System at highly utilized facilities to provide real-time parking availability information to transit riders looking for a spot.
Connected and Autonomous Vehicles	Connected vehicle (CV) technology is the use of advanced technologies and communication for vehicles to connect with other vehicles, infrastructure, and people. Metro continues to pursue potential CV applications that would benefit local agencies in LA County. Autonomous vehicle (AV) technology has the potential to disrupt existing transportation systems and cities through the deployment of self-driving vehicles that are safer and faster than human-operated vehicles. Metro continues working with local jurisdictions, agencies, and vendors/manufacturers to advance CV and AV technology in the region.

Complete Streets

Metro's Complete Streets Policy defines complete streets as a comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users.

A complete streets network serves many users in a safe manner including: pedestrians, public transit users, bicyclists, people with disabilities, seniors, children, motorists, and movers of goods. Complete streets also have more greenery and sustainable elements to enhance the environmental sustainability of the transportation system. As a transportation funder, Metro can incentivize funding recipients to develop projects that meet complete street goals.

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Active Transportation Corridor Projects

The 2020 LRTP includes close to \$7 billion in funding for active transportation projects, including major facilities and bicycle and pedestrian programs at the local level. The major multi-use active transportation facilities funded in the LRTP are described in Figure 10.

Figure 10

Active Transportation Investment

MAJOR TRANSIT PROJECT	\$ IN MILLIONS	ESTIMATED OPEN YEAR	LENGTH (MILES)	DESCRIPTION
Rail to Rail Active Transportation Corridor Segment A	140	2024	6	A 5.6 mile multi-use path connecting the Fairview Height Station of the soon-to-be-open Crenshaw Line in Inglewood to the Slauson A (Blue) Line station in South Los Angeles.
Rail to River Active Transportation Corridor Segment B				An approximate 4.5 mile active transportation corridor between the LA River to the Slauson A (Blue) Line station that connects to Segment A.
LA River Path – Central LA	365	2025 – 2027	8	An eight-mile bicycle and pedestrian path gap closure between Elysian Valley and Maywood, through downtown Los Angeles.
LA River Path – San Fernando Valley	60	2025	13	The San Fernando Valley LA River Path will connect the San Fernando Valley to the existing LA River Path near Griffith Park. This 13-mile path will help create a 51-mile continuous active transportation corridor from Long Beach to Warner Center.
City of San Fernando Master Bike Plan	5	2054	TBD	This project will create a bike path to run along the Pacoima Wash.

Complete Streets Programs, Plans, and Policies

In addition to the major capital commitments, Metro advances complete streets through three foundational documents including Metro’s Complete Streets Policy (2014), First/Last Mile Strategic Plan (2014), and Active Transportation Strategic Plan (2016), which are the catalyst for several more plans and programs. Figure 11 shows the full range of complete streets programs, plans and policies.

Figure 11

Complete Streets Programs, Plans, and Policies

PROGRAM NAME	DESCRIPTION
Metro’s Complete Streets Policy	Metro’s Complete Streets Policy views transportation improvements as opportunities to create safe, accessible streets for all users, including but not limited to pedestrians, public transit users, bicyclists, people with disabilities, seniors, children, motorists and movers of commercial goods. Through incremental changes in capital projects and regular maintenance and operations improvements, the street network will gradually become safer and more accessible for travelers of all ages and abilities. In partnership with state, regional and local efforts, this policy will create a more complete and integrated transportation network for all modes of travel in LA County.
Active Transportation Program	Measure M establishes the Metro Active Transport, Transit and First/Last Mile (MAT) Program, which over the course of 40 years, is anticipated to fund more than \$857 million (in 2015 dollars) in active transportation infrastructure projects throughout the region. This is a competitive discretionary program available to municipalities in LA County and will fund projects to improve and grow the active transportation network and expand the reach of transit.
Active Transportation Strategic Plan	Adopted in 2016, the Active Transportation Strategic Plan (ATSP) is Metro’s ongoing commitment to enhance access to transit stations, create safer streets, and develop a regional network to improve mobility for people who walk, bike, and take transit. The ATSP is a roadmap for Metro and stakeholders, including local jurisdictions and regional governments to set regional active transportation policies and meet transportation goals and metrics established in local, regional, state, and federal plans.
First/Last Mile (FLM) Program	In 2016, the Metro Board of Directors adopted policies (Motion 14.1 and 14.2), which prompted the creation of Metro’s FLM program. The three primary goals of Metro’s FLM are: (1) To identify and remove barriers for people walking or bicycling to their transit station or destination and plan/implement improvements to an individual’s trip. (2) Improve transit riders’ safety by providing safe infrastructure to complete their trips safely, regardless of their travel mode. (3) Enhance the customer experience for transit riders by addressing visual aesthetics and livability through infrastructure improvements.
FLM Strategic Plan	Metro developed a First/Last Mile Strategic Plan in 2014 to address the challenge that riders face getting from their home to transit and from transit to their final destination. FLM strategies extend station areas, improve safety and enhance the visual aesthetic. The Plan identifies barriers and potential improvements for the FLM portions of a transit trip.
Blue Line FLM Plan	This First/Last Mile (FLM) Plan was adopted in April 2018 and represents a first-of-its-kind effort to plan comprehensive access improvements for an entire transit line. The Plan covered all 22 stations on the Metro A (Blue) Line and piloted an inclusive, equity focused community engagement process. The Plan included planning-level, community-identified pedestrian and bicycle improvements within walking (1/2-mile) and biking (3-mile) distance of each A Line station. The Plan executed the methodology from the FLM Strategic Plan, including walk audits of every station area, development of draft Pathway Networks and project ideas, community engagement events, and finalization of Pathway Networks and project ideas.

PROGRAM NAME	DESCRIPTION
Inglewood FLM Plan	This plan, adopted by the Metro Board of Directors in January 2019, identifies pedestrian and bicycle improvements for stations in the City of Inglewood, including three stations on the Crenshaw/LAX Line (Fairview Heights, Downtown Inglewood, Westchester/Veterans), and one station on the Green Line (Crenshaw). This is the first FLM plan with committed implementation funding from the City of Inglewood via the City's 3% local contribution.
Gold Line Foothill Extension 2B FLM Plan	Adopted by the Metro Board of Directors in June 2019, the Plan includes FLM station area plans for five stations on the Gold Line Foothill Extension Phase 2B (Glendora, San Dimas, La Verne, Pomona, Claremont). The development of the station plans included close coordination with the Foothill Gold Line Construction Authority and the five cities around the station areas.
Aviation/96th St Station (Airport Metro Connector) FLM Plan	A new major transit hub will connect the LAX/Crenshaw and Green Metro Rail lines and a number of bus routes with the LAX Automated People Mover. Adopted by the Metro Board of Directors in June 2019, the Plan addresses FLM connections in the area surrounding the future station, located near the border of Los Angeles and Inglewood.
Westside Purple Line Extension FLM Plan Sections 2 and 3	Adopted by the Metro Board of Directors in May 2020, the Plan includes FLM station area plans for four stations on the Westside Purple Line Extension Sections 2 and 3 (Wilshire/Rodeo, Century City/Constellation, Westwood UCLA, and Westwood/VA). The development of the station plans included close coordination with local jurisdictions, institutional stakeholders such as UCLA and the Veterans Administration, along with neighborhood and community groups.
Metro Micro Mobility Vehicles Program	The Metro Micro Mobility Program seeks to manage e-scooters and dockless bike share on Metro properties and right-of-way (ROW) focusing on maintaining a clear path of travel for transit patrons, developing an organized parking system, operating safety for users and pedestrians, and providing equitable availability and access. Through this program, Metro leases designated spaces for e-scooter and dockless bike share parking on Metro property, parking facilities, and Metro ROW.
New Mobility Regional Roadmap	Metro is building a coalition of civic partners to determine the best tools for managing new mobility in LA County and achieving Metro's Vision 2028 goal of doubling non-SOV driving trips by 2028. New Mobility includes, but is not limited to, ride-hailing, carsharing, e-scooter, bike share, and courier network services such as Postmates and Uber Eats.
Bicycle Education Safety Team (BEST) Program	Metro offers free classes for the community to learn how to bike safely, conveniently, and confidently. Metro also offers group rides that includes stopping at local destinations to help people feel more comfortable on a bike and realize where they can ride to in their neighborhood.
Connect Union Station Action Plan	The Connect US Action Plan was developed to improve historical and cultural connections in downtown Los Angeles by enhancing pedestrian and bicycle travel options through and between communities. At the center of the study is access to Los Angeles Union Station, a regional transportation hub for numerous rail, bus and shuttle services, as well as the future Regional Connector station at 1st/Central. The Connect US Action Plan is a joint effort between Metro and the Southern California Association of Governments (SCAG) and was developed in collaboration with various City of Los Angeles and County departments and agencies through the project's Technical Advisory Committee (TAC).
Metro Bike Share	Metro Bike Share is a docked bike share system which offers access to bikes at specific locations across the county. Smart Metro Bikes are available on the Westside and in North Hollywood. The Electric Metro Bike is a pedal-assisted bike that allows expanded opportunities for riders to complete their first/last mile connections from farther distances with less effort required to pedal.

PROGRAM NAME	DESCRIPTION
Metro Bike Hub	The Metro Bike Hub also offers onsite staff assistance, same-day repairs, accessory sales, bike classes and more at four locations across LA County. Hubs are located at Hollywood/ Vine, Union Station, El Monte, and Culver City. Secure bike parking is operated by BikeHub, Metro's Small Business Enterprise-certified contractor. Registered users may access the secure bike parking area 24 hours a day, seven days a week.
Green Construction Policy	Metro established a Green Construction Policy (GCP) in 2011 to reduce emissions during construction, as well as the Sustainability Plan Program to assist contractors with meeting CALGreen obligations. The GCP was updated in 2018, requiring contractors to use renewable diesel for all diesel engines and thus reducing the negative health impacts from diesel exhaust. This effort reaffirms Metro's commitment to protect the communities we serve, especially those disproportionately affected by air pollution.
Zero-Emission Fleet	Metro will transition to zero-emission buses systemwide. The G Line (Orange) will be the first to deploy electric-battery buses as part of its improvements project, scheduled for completion by 2025. With an original goal of 2040, Metro would like to fully electrify by 2030. Metro is also taking the lead in forming a Countywide Zero-Emission Trucks Collaborative to promote consistency among public agencies in working to catalyze the development and deployment of zero-emission trucks in LA County. This collaborative will include the Ports of Long Beach and Los Angeles, Caltrans, Southern California Association of Governments and the South Coast Air Quality Management District.
Metro Active Transport Program (MAT)	The MAT Program is a discretionary funding program in Measure M, and is the first dedicated funding for active transportation in a LA County sales tax measure. The program funds the development of new active transportation corridors and first/last mile projects, with a focus on equity. The MAT program will proceed in funding cycles of 2-5 years with the expectation of varying program emphasis areas over time.

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Access to Opportunity

Access to opportunity means investing in communities to connect people to what they need (jobs, education, healthcare, etc.) in a reasonable amount of time. Increasing access to opportunity involves bringing Metro’s transportation options closer to jobs and homes, and supporting small businesses, local economies and families. Many of the actions in this area are closely tied to Metro’s Equity Platform and related work, which is expanded on in the equity section.

Figure 12 describes the programs, plans and policies that comprise the Access to Opportunity Priority Area.

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Access to Opportunity Programs, Plans, and Policies

Figure 12

Access to Opportunity Programs, Plans, and Policies

PROGRAM NAME	DESCRIPTION
Transit Oriented Communities	Metro is redefining the role of the transit agency by expanding mobility options, promoting sustainable urban design, and helping transform communities throughout LA County. At the forefront of this effort is Metro's vision to work with communities to create transit oriented communities (TOCs) across LA County. TOCs are places that, by their design, make it more convenient to take transit, walk, bike or roll than drive.
Metro's TOC Policy	In 2018, Metro adopted the Transit Oriented Communities (TOC) Policy. The TOC Policy defines: <ol style="list-style-type: none"> 1. TOCs for Metro and establishes Metro's goals and objectives to enable TOCs; 2. TOC activities that will be considered a transportation purpose and thus eligible for funding under the Measure M Guidelines by Metro and by its municipal partners through Local Return as well as for other eligible sources at the federal, state, and local level; and 3. Defines areas where Metro leads (implements directly) and where Metro supports partners to undertake TOC Activities.
Draft TOC Implementation Plan	Metro is currently in the process of developing the Draft TOC Implementation Plan that will outline a series of initiatives and strategies with corresponding measures and reporting that Metro can realize directly or in partnership with others. This draft TOC plan is expected to be presented to the Metro Board for adoption in 2020.
TOD Planning Grant Program	Since 2011, Metro has provided \$24.6M grant funding to 32 jurisdictions across LA County to develop and adopt transit supportive plans around a half-mile radius around 95 Metro/MetroLink transit stations.
West Santa Ana Branch TOD Strategic Implementation Plan and Program (TOD SIP)	The TOD SIP provides an overarching vision and strategic guidance for local West Santa Ana Branch (WSAB) jurisdictions to use as a resource as they develop and implement their own plans, policies and economic development and mobility strategies in the 12 WSAB station areas along the alignment. Additionally, in 2019, the Metro Board approved a \$1M implementation program to fund WSAB jurisdictions to implement TOD SIP recommendations.
Joint Development (JD) Program	Joint Development (JD) helps foster TOCs by leveraging properties Metro owns to advance community development goals while attracting new riders to the Metro system. These properties are often parcels of land acquired for transit projects for Metro stations, construction staging or other supportive uses and have been determined to have transit-oriented development potential. Following a multilayered community engagement and selection process, Metro collaborates with qualified developers to develop its sites through joint development agreements, typically culminating in a long-term ground lease.
Metro Affordable Housing Policy	In July 2015, the Metro Board of Directors adopted an updated JD Policy to encourage development of affordable housing in LA County. The JD Policy includes a goal that 35% of total housing units in the JD portfolio be affordable to households earning 60% of area median income (AMI) or below and allows Metro to discount JD ground lease rents below fair market rent to accommodate affordable housing. The JD Policy is in the process of being revised as Metro seeks to further strengthen its commitment to addressing the region's pressing affordable housing and homelessness crisis.

PROGRAM NAME	DESCRIPTION
Metro Adjacent Development Review	This program works with local municipalities and developers building near the Metro system to ensure safety during and after construction and identify synergies between new development and Metro stations and stops to increase ridership and reduce auto dependency.
Metro Adjacent Transit Connected Housing (MATCH) Loan Fund	In August 2016, the Metro Board approved investing \$9,000,000 into the Metro Adjacent Transit Connected Housing (MATCH) Program which through a partnership with Community Development Financing Institutions (CDFIs) and philanthropic organizations, offers low interest loans to support the development and preservation of affordable housing units near transit.
TOC Small Business Loan Program	In August 2016, the Metro Board approved a \$1,000,000 investment in the TOC Small Business Loan Program. Originally geared toward funding tenant improvements in TODs, in the spring of 2020, the Metro Board authorized changes to allow the funding to be used to provide emergency relief to small businesses near transit impacted by the COVID-19 health pandemic and economic crisis. Metro is currently exploring opportunities to improve upon the original TOC Small Business Loan Program.
Metro's Co-Powerment Programs	Co-powerment programs expand access to opportunities for small businesses and traditionally underrepresented residents in Metro's service area. The two areas of focus are economic development and workforce development.
Disadvantaged Business Enterprise Program (DBE)	The DBE program applies to Federal Transit Administration (FTA) funded contracts and exists to increase the number of historically underutilized (minority or women-owned) disadvantaged businesses and to equip them with tools and resources they need to do business with Metro. The groups that this program covers are: African Americans, Asian Pacific Americans, Native Americans, Hispanic Americans, Subcontinent Asian Americans, and women (including Caucasian women). In 2020, there are more than 1,400 DBE firms at Metro.
Small Business Enterprise Program (SBE)	Applicable to state and locally funded contracts (non-federal), SBE is similar to the DBE certification, except it is race and gender-neutral, and contracts businesses with a net worth of less than \$1.32 million and average revenue over the previous three years of less than \$23.98 million. In 2020, there are more than 2,100 SBE firms that are certified.
Small Business Prime Program	The Small Business Prime Program sets aside applicable contracts (\$3,000 to \$5 million) for which only Metro certified Small Business Enterprises (SBEs) can compete. SBE Primes are required to perform a minimum of 30% with their own workforce, and may subcontract 70% of the work to SBEs, medium or large firms. Metro actively encourage SBEs to use traditional primes as subcontractors to help mentor and fulfill increased contracting responsibility.
Disabled Veteran Business Enterprise Program (DVBE)	This program establishes a goal of contracting with DVBEs at 3% for all goods and services over \$100,000 for non-federally funded competitive contracts.
Medium Size Business Enterprise Program (MSZ)	Metro has established a Medium-Size Business Enterprise (MSZ) program to provide contracting opportunities for medium-size businesses and allow for competition with similar size firms, The MSZ program may be applied to contracts ranging from \$12M to \$30M, bridging the gap between small businesses and large business concerns by creating contracting opportunities for which only MSZs may compete. MSZs are defined as firms with a three (3) year average of \$25 million to \$250 million in gross annual revenue and with more than 25 employees.
Contracting, Outreach, and Mentorship Program Protégé (COMP)	This is required on applicable contracts over \$25 million. Proposers responding to Request for Proposals (RFPs) with this requirement must outline how they will provide technical assistance such as estimating, scheduling, management and other best practices to DBE, SBE, and DVBE subcontractors on their project. This mentoring plan will be documented in the COMP submittal and scored as part of the RFP evaluation. The COMP is designed to increase the practical and technical capabilities of the small business subcontractor (protégé).

PROGRAM NAME	DESCRIPTION
Contractor Development and Bonding Assistance Program (CDBAP)	The CDBAP assists Metro-certified SBE, DBE, and DVBE firms to secure necessary bonding required to bid on Metro construction projects. The program also assists with obtaining or increasing bonding capacity and collateral support for bids, performance and payment bonds, along with technical education, training, and contractor support. This program helps to increase the participation of small/disadvantaged businesses on Metro projects. Additionally, the CDBAP is comprised of a consortium of local agencies including Los Angeles World Airports, the Los Angeles County Department of Water and Power and the Port of Los Angeles to support the development and growth of small businesses.
Workforce Initiative Now-Los Angeles (WIN-LA)	WIN-LA is an initiative to build the workforce of the future through a career pathway that provides opportunities for people to work in the transportation sector and move up through the ranks. The initiative delivers workforce development and skills training for transportation jobs by partnering with private-sector employers, community colleges, labor organizations, and others. The focus is on construction, operations/maintenance, administration, and professional services. Participants include veterans, previously unemployed, emancipated foster youth, those involved with the justice system, those receiving public assistance, single custodial parents, and formerly homeless.
Project Labor Agreements (PLAs)	PLAs articulate goals for Metro construction contractors to train and employ economically disadvantaged residents, specifically targeting minorities and women. Each month the contractors must report how successful they have been in meeting their goals. As of May 2020, there have been 43 projects with PLAs to date since 2012, worth over \$8B in construction, with over 2,000 apprentice workers on three mega projects alone. The PLAs encourage the hiring of female workers on construction jobs, with a goal of 6.9% participation. Metro's Women Build Metro LA (WBMLA) committee was established in support of Metro's PLAs and Construction Careers Policy to increase female participation in the transportation-related workforce.
Business Interruption Fund (BIF)	BIF provides some financial support (\$10,000,000 annually) for "mom and pop" businesses immediately adjacent to the Crenshaw/LAX corridor, Purple Line Extension corridor, Little Tokyo area around the Regional Connector, or a designated construction staging/storage area. The maximum \$50,000 grants are provided to cover verified business losses due to Metro construction.
Business Solutions Center (BSC)	Authorized by the Metro Board in 2014, this program helps "mom and pop" businesses with 25 or fewer full-time employees that are directly impacted by Metro rail projects. Through this program, professionals assist and teach business owners about long term business planning, website development, marketing on social media, assessment of their IT systems, accounting management, and access to financial capital.
Workforce Of Tomorrow – E3 Initiative	Metro is investing in the next generation of transportation workers through the E3 Initiative to expose, educate, and employ the next generation of LA County. The initiative's mission is to prepare LA County youth for career and college pathways in the global transportation infrastructure industry by teaching them transferrable Science, Technology, Engineering, Arts and Mathematics (STEAM) industry skills.
Metro's Transportation School	Metro, in partnership with the County of Los Angeles, is developing a Transportation School, which will prepare LA County youth for career and college pathways in the global transportation industry. The school's curriculum will be developed to teach students transferrable STEAM industry skills focused on science, technology, engineering, arts and math.
Teacher Externship Program	This is a six-week summer program for teachers from LA County middle and high schools to learn about the transportation industry and develop a project-based learning experience for their students. Teachers who participate are given stipends.

PROGRAM NAME	DESCRIPTION
Entry Level Trainee Program (ELTP)	This is an entry-level program for recent college graduates to get work experience and job skills as a Transportation Associate 1 at Metro.
Transportation Career Academy Program (TCAP)	This is a summer internship program at Metro for transit dependent juniors and seniors in high school who live or attend school near Metro rail. This offers the students real-world experience and a chance to learn about transportation careers.
Los Angeles Trade and Technical College (LATTC) Metro Joint Apprenticeship Committee (JAC)	JAC is a training program designed to provide rail maintenance personnel with introductory skills, abilities, techniques, tools, and practices to perform duties related to maintenance of rail vehicles.
Metro Bridge Academy	This is a free, paid four-week academy that trains unemployed individuals to become a Metro operator. This academy is built through a partnership between Metro, Los Angeles Valley College, and Community Career Development, Inc.
Regional EZ Transit Pass	The Regional EZ pass is a monthly pass good for local travel on 23 different public transit carriers throughout the Greater Los Angeles region. The EZ pass works with fare levels, referred to as zones, and eliminates the need for multiple passes when transferring between Metro transit and other participating municipalities. Seniors and persons with disabilities have the opportunity to receive additional discounts with appropriate verification.
LIFE Program	The Low-Income Fare is Easy (LIFE) program, considered a fare subsidy program, provides transportation assistance to low-income individuals in LA County. LIFE offers fare subsidies that may be applied toward the purchase of a Metro pass, a LIFE-participating operator pass, or free regional ride options. Qualifying riders can save more on Metro 7-Day, 30-Day or toward fare on participating transit operators with LIFE benefits. These benefits are loaded directly onto TAP cards. The system launch eliminated the use of paper coupons and tokens, enabling LIFE patrons to load their subsidies on their TAP cards.
Universal College Student Transit Pass (U-Pass Program)	In May 2016, the Metro Board approved the Universal College Student Transit Pass (U-PASS) Pilot Program. The U-PASS Program provides college students of participating schools with greater fare discounts and an expedited activation process administered on campus. The U-Pass is currently valid on Metro and nine municipal agencies.
Transitional Pass Program (GradPass Program)	The GradPass Program, also a transitional reduced fare program, is for graduating U-Pass holders allowing eligible participants to purchase Metro fare at the reduced college/vocational rate. It offers an additional 12 months after graduation to help students as they transition out of academia and into the workforce.
Employer Annual Pass Program (EAPP) – Annual Transit Access Pass (ATAP)	A regular ATAP is good on all Metro bus and rail services including Freeway Express services (Silver Line, Express). The program allows employers to purchase annual non-discounted passes for individual employees. Employers and employees may qualify for commuter benefits, which will significantly reduce the cost of the employee pass and act as a business tax benefit for the employer.
Employer Annual Pass Program (EAPP) - Business Transit Access Pass (BTAP)	Under the BTAP Program, employers are required to purchase reduced fare annual passes for all employees at a worksite. A small percentage of employees may be exempted for approved reasons, such as Metrolink and vanpool users or those with unconventional work assignment, such as having a night shift work schedule.
Employer Annual Pass Program (EAPP) - Staff and Faculty Pass Pilot Program (E-Pass)	In 2016, with the inception of the U-Pass Program, college staff and faculty requested a similar program for the administration. Commute Services is currently working with the Office of Management and Budget (OMB) on a Pilot Program based on a per-boarding cost and administered through partnership agreements, similar to the U-Pass Program. As of May 2018, OMB has approved 16 businesses for participation in this program.

PROGRAM NAME	DESCRIPTION
Employer Annual Pass Program (EAPP) - Promotional Employer Pass (PEPP) Program	As an introduction to EAPP Programs, the Promotional Employer Pass is open to new businesses who are not currently participating in the EAPP Program.
Residential Transit Access Pass (RTAP)	Based on past practice, the current Residential TAP (RTAP) program offers discounted passes to official Metro Joint Development projects under the Business Transit Access Pass (BTAP) program.
K-12 U-Pass Pilot Program	In the fall of 2019, Metro partnered with MoveLA, LA Promise Fund, The South Los Angeles Transit Empowerment Zone (SLATE-Z) and LAUSD to promote a U-Pass K-12 Pilot Program. The grant, funded from the 11th Hour Schmidt Family Foundation, provided 400 students with an unlimited U-Pass for the 2019-2020 academic year.
Youth on the Move Pilot Program	Metro is approving a one-year pilot program to explore multiple options, which include, but are not limited to, lowering, and extending the eligible age range of the Youth on the Move program to reach out to more youth participants. The program benefits include providing transportation assistance to foster youth transitioning out of foster care into self-support through the Independent Living Program managed by the Los Angeles County Department of Children and Family Services.
Unsolicited Proposals Policy	In May 2018, Metro established an Unsolicited Proposals Policy which established a process for Metro to engage the private sector by accepting written proposals for the purpose of developing partnerships that are not in response to an issued request from Metro. This policy provides a pathway for Metro to implement projects that otherwise might not have happened until well in to the future, if at all. Unsolicited Proposals can lead to a demonstration, pilot project, such as the Mobility on Demand first/ last mile pilot with Via, or even full deployment across Metro's system.
Comprehensive Pricing Strategy	The Metro Comprehensive Pricing Study (CPS) is a system-wide review of Metro's pricing policies for all of its transportation services, including fares, bike share, parking and tolls. Vision 2028 directs staff to conduct a comprehensive transportation system pricing study to determine options for meeting goals of revenue, equity, security, ridership, and user experience, and to implement pricing policies arising from the study.

Sustainability

Metro's mobility investments are largely oriented towards sustainable outcomes, and therefore sustainability is woven throughout actions that comprise the four priority areas. Investments in bus, rail, walking, bicycling and shared-mobility inherently produce less harmful emissions than a single-occupant motor-vehicle trip while consuming less natural resources. But Metro's work in sustainability does not stop there. Sustainability is a value at Metro that influences our work across the agency.

Sustainability is fundamentally about meeting the needs of the present without compromising the ability of future generations to meet their own needs. In this way, sustainability aspires to achieve intergenerational equity to ensure that future generations benefit from the opportunities and resources that prior generations enjoyed. This section explores the work Metro is undertaking to ensure that our sustainable mobility systems reduce harmful emissions, reduce water and energy use and are resilient in the face of a warming climate.

Sustainability Vision: Create an organizational culture and workforce that continually integrates the principles of sustainability into all aspects of decision making and execution to enhance communities and lives through mobility and access to opportunity.

Metro's commitment to sustainability is guided by the following principles:

1. Implement sustainable practices and initiatives that advance and enhance the goals of Metro's Vision 2028 Strategic Plan.
2. Align sustainability projects and initiatives to support Metro's Long Range Transportation Plan.
3. Establish measurable key performance indicators to track the implementation and success of our sustainability strategies and actions.
4. Achieve our sustainability goals through transparent and authentic engagement with our stakeholders and community members.
5. Foster a culture of sustainability at Metro through staff education, workforce development and increased capacity.
6. Encourage innovation in strategic planning and sustainable practice through adaptability and resilience.
7. Strengthen regional sustainability efforts by providing leadership and collaborating with regional partners and agencies.

Further, the very nature of our sustainability work requires close collaboration and partnership with local, regional and state public agencies as well as private sector partners to achieve our shared climate and sustainability goals.

Key California Climate and Sustainability Practices

California continues to lead the nation as one of the most progressive states for sustainability and climate change policy. Below is a concise summary of some of the more prominent policies that guide Metro's work directly or through partnerships.

Greenhouse Gas Emissions Reduction

Senate Bill 32 (Pavely, 2016) and Assembly Bill 32 (Nunez, 2006) – AB 32 requires California to reduce its overall greenhouse gas emissions to 1990 levels by 2020 and established the state's cap-and-trade program to help achieve this goal. SB 32 goes further to require California to reduce greenhouse gas emissions 40 percent below 1990 levels by 2030.

Cap-and-Trade Extension

Assembly Bill 398 (Garcia, 2017) – Law extending California's cap-and-trade program, established by AB 32, through 2030

Sustainable Transportation Planning

Senate Bill 375 (Steinberg, 2008) – Transportation planning legislation that requires Metropolitan Planning Organizations (MPOs) that prepare a Regional Transportation Plan (RTP) to adopt a Sustainable Communities Strategy (SCS) that sets goals for the reduction of greenhouse gas emissions from automobiles and light trucks in a region. The California Air Resources Board (CARB) sets the greenhouse gas reduction targets in consultation with the MPO for the LA County region, the Southern California Association of Governments (SCAG), and then works with Metro and the cities to help achieve those targeted greenhouse gas reduction targets through a combined RTP/SCS strategy.

California Air Resources Board Oversight and Reporting

Assembly Bill 197 (Garcia, 2016) – A companion bill to SB 32 requiring CARB to report regularly to the state legislature on its progress in implementing the state's climate policies, including progress on the aforementioned RTP/SCS.

Renewable Energy Procurement

Senate Bill 100 (de Leon, 2018) and Senate Bill 350 (de Leon, 2015) – Energy legislation that requires the state to procure 60 percent of all electricity from renewable sources by 2030 and 100 percent from carbon-free sources by 2045; double the energy efficiency of existing buildings; and allow greater electric utility investment in electric charging infrastructure.

Community Air Protection

Assembly Bill 617 (Garcia, 2017) – Companion bill to AB 398 that extends California's cap-and-trade program for greenhouse gas emissions. The legislation increases air monitoring requirements and penalties for polluters who exceed limitations in vulnerable communities.

California Climate Registry

Senate Bill 1771 (Sher, 2000) – Established the California Climate Registry, which cataloged early greenhouse gas emission reductions and set reduction goals and standards for measurement and verification, as a precursor to AB 32 as well as other state efforts.

Key Metro Climate and Sustainability Policies and Programs

Metro continues to evolve its policies and programs to adapt the latest innovative practices and be responsive to our evolving climate challenges. The following climate and sustainability policies and programs provide a sample of the breadth and depth of sustainability work that Metro is pursuing.

Southern California Association of Governments Regional Transportation Plan & Sustainable Communities Strategy (SCAG RTP/SCS)

SCAG prepares an RTP/SCS, a long-range regional planning document that coordinates land use and transportation strategies across the five county SCAG region to help the state of California achieve its climate goals. The 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. Metro is a key participant in this process, contributing many of the sustainable mobility projects that will help achieve the GHG emissions reductions identified in the Plan.

Zero Emission Buses (ZEB)

Metro's vehicle fleet accounts for 80 percent of its total energy consumption per year. Reducing criteria air pollutant emissions is critical to protecting public health and reducing air pollution. Metro has already replaced over 220 aging bus engines with near-zero emission engines and plans to continue, replacing at a rate of 180 engines per year. This initiative is not only increasing the operating life of existing buses, but more importantly, it is reducing NOx and PM emissions from our bus fleet. Additionally, we have adopted a comprehensive plan to transition to a 100 percent zero emission electric bus fleet by 2030. These initiatives will significantly reduce NOx, PM and GHG emissions. The following documents have more details on Metro's plans to transition vehicle fleets:

- > Zero Emissions Bus Master Plan (2020)
- > Electric Vehicle Implementation Plan (2020)

Climate Action and Adaptation Plan (CAAP)

Metro completed an update of the CAAP in 2019 which further commits our agency to reducing GHG emissions and building climate change resilience within our transportation system and across the region. Thus far, Metro has completed several energy assessments and implemented large-scale projects, including LED lighting retrofits, a transition to RNG for our bus fleet, a bus electrification schedule and various system upgrade installations at rail and bus maintenance divisions.

Climate Safe Infrastructure Adaptive Design (AB 2800)/ Climate Safe Infrastructure

Metro has participated in this statewide initiative to understand how the state of California can better prepare its existing and new infrastructure for climate conditions that will be increasingly different from the current ones. The overarching goal is to ensure a climate-safe future by incorporating climate change data into infrastructure design, construction, and operations and maintenance. Metro is taking steps to fully incorporate climate adaptation into its planning, procurement, asset management and operations.

Sustainable Design Training

All successful Metro Call for Projects grant recipients, beginning with the 2013 Call for Projects, are required to attend a Metro-sponsored Sustainable Design Training and submit a Sustainable Design Plan for their project. The training has four main objectives – 1) Train Call for Project applicants on how to develop a sustainable design plan, 2) Educate applicants on the components of a sustainable design plan, 3) Provide examples of sustainable outcomes and 4) Estimate performance results and quantify benefits.

Metro's Growing Greener Workforce

Implemented in 2017 to create a more resilient and sustainable Los Angeles by providing people with knowledge through Metro sponsored trainings and professional development. Trainings are available in-person or online and allow for local professionals to continue to advance their career and gain relevant industry certifications.

Metro Environmental Construction Awareness (MECA)

The Program is a set of video, text, and hotlink resources focused on specific environmental regulations and practices to be considered in proposal preparation and implementation. The resources provided should be used as a basis for understanding project expectations; to apply proven sustainability solutions throughout a project from its inception; and to learn the concepts, terminology, and procedures Metro's Environmental Compliance and Sustainability Department (ECSD) uses.

Sustainable Acquisition Program

Currently in development, the program identifies strategies to change existing behavioral and purchasing practices to minimize both the upstream and downstream impacts of procured materials.

Transportation Electrification Partnership

Metro is a key partner in the Transportation Electrification Partnership (Partnership), an unprecedented multi-year partnership among local, regional, and state stakeholders to accelerate transportation electrification and zero emissions goods movement in the Greater Los Angeles region. The Partnership was established by the Los Angeles Cleantech Incubator (LACI) in May 2018 to accelerate the adoption of transportation electrification across light and heavy-duty vehicles, to reduce greenhouse gas emissions and to improve air quality.

Water Action Plan (2010)

The Plan provides recommendations for water conservation and cost-benefit analysis of those recommended actions for Metro's consideration. It also recommends next steps for the refinement, implementation, and ongoing optimization of the Plan and its associated strategies. The intent of this Plan is to determine the potential for water conservation opportunities and cost-saving measures consistent with Metro's environmental policies and its implementation of an Environmental Management System (EMS). An update to the Water Action Plan is forthcoming.

Environmental Management System (EMS)

EMS creates a framework for implementing best practices that help ensure compliance with federal, state and local environmental regulations, pollution prevention and sustainability goals and maintains the International Organization for Standardization (ISO) 14001:2015 certification by conducting both internal and external third-party audits. Using the ISO 14001:2015 framework of Plan-Do-Check-Act, Metro EMS builds on Metro's Environmental Policy to synchronize operational best practices with the agency's larger environmental and sustainability goals and helps to increase employee awareness on how to reduce impacts on the environment.

Resiliency Indicator Framework (2015)

The Resiliency Indicator Framework established a mechanism to measure and evaluate climate adaptation implementation priorities to ensure infrastructure resilience and maintain a good state of repair. These indicators have a broad, multi-hazard application across Metro as they facilitate continual improvement, tracking the effectiveness of our planning, construction, and operational activities in increasing agency-wide resilience.

Moving Beyond Sustainability

In the fall of 2020, Metro released the Moving Beyond Sustainability Plan (MBS) – a comprehensive sustainability strategic plan framework to guide sustainability activities over the next ten years and beyond. The title is a reflection of the fact that while our day-to-day mobility operations inherently advance sustainability by reducing GHG emissions, we can and will do more. Our work intends to move beyond sustainable mobility as we increase access to opportunity, conserve resources, foster vibrant communities, improve public health, drive economic development and transform LA County.

Building on over a decade of sustainability policies, plans and programs, MBS will be Metro's most comprehensive sustainability planning document to date and sets goals, strategies and actions that align with and emanate from other key Metro guidance documents, including: Vision 2028, Long Range Transportation Plan, Equity Platform Framework and our Resiliency Indicator Framework. In addition, recognizing that Metro's success is dependent on collaboration with our public agency partners, MBS, aligns with and supports parallel efforts and plans underway at LA County and the City of Los Angeles, including LA's Green New Deal and Our County plans.

MBS will be a living document, adaptive to people's needs, a rapidly changing climate, new learning, continuous improvement and new opportunities for partnerships. Upon final adoption of the Plan by the Metro Board of Directors (anticipated Fall 2020), the plan will be available at Metro's sustainability website: <https://www.metro.net/projects/sustainability/>

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Equity

The LRTP update began with equity as a guiding theme. In February 2018, the Metro Board adopted the Equity Platform, confirming the agency's commitment to evaluate areas of the most need in the County and intentionally reevaluate agency priorities to advance opportunities for those who are faring the worst in the region. The following section describes Metro's Equity Program and the LRTP's relationship to advancing equity through the Equity Platform, a Definition of Equity, Equity Focus Communities, and Title VI analysis. Title VI of the Civil Rights Act of 1964 applies to programs and activities receiving federal assistance to protect people from discrimination based on race, color, and national origin. Transit operators are required to apply Title VI to operational decisions and contracting practices.

Equity Platform

In 2018, Metro adopted its Equity Platform to help ensure system changes prioritize those most in need of improved access to opportunity. Metro recognizes that there are deep-rooted and pervasive racial and socioeconomic inequities that create disparate results and impacts, even when the intention is to help all. Accordingly, we need an understanding of those disparities and an intentional focus on those faring the worst in order to truly improve access to opportunity for all. The Equity Platform is structured around four pillars:

- I. Listen and Learn;
- II. Define and Measure;
- III. Focus and Deliver; and
- IV. Train and Grow.

The LRTP was developed in accordance with these pillars, through robust public engagement, as well as clearly defining our goals and performance measures for tracking our effort to deliver better access and mobility in the future.

Defining Equity

As part of our commitment to the Equity Platform Framework, Metro has developed a definition of equity. This definition gives each facet of Metro and our community partners a starting place for understanding what equity means in our projects, plans and partnerships. The definition was developed with input from the Metro PAC in 2019.

Equity is both an outcome and a process to address racial, socio-economic and gender disparities, to ensure fair and just access – with respect to where you begin and your capacity to improve from that starting point – to opportunities, including jobs, housing, education, mobility options and healthier communities. It is achieved when one's outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic or social identities. It requires community informed and needs-based provision, implementation and impact of services, programs and policies that reduce and ultimately prevent disparities.

As it relates to the LRTP, the definition of equity is intended to apply broadly across Metro's range of activities and investments described in the Plan.

Equity Focus Communities

As part of the LRTP, Metro has defined “Equity Focus Communities” (EFCs). EFCs are a set of geographies that Metro staff developed with the Equity Working Group of the Policy Advisory Committee (PAC). The purpose of the Working Group was to determine the location of underserved communities and analyze data that identified disparate outcomes. The development of a definition of Equity Focus Communities was reviewed by experts at the University of Southern California (USC) Program for Environmental and Regional Equity (PERE) in consultation with the Metro PAC.

As part of defining EFCs, Metro looked at more than 30 indicators of opportunity across the following categories:

- > Jobs
- > Housing
- > Education
- > Public Health/ Environment
- > Safety/ Security

Indicators such as households within a half mile of parks were calculated for the LA County population across a variety of socio-demographic risk factors including:

- > Race
- > Income
- > Age
- > Gender
- > Birthplace
- > Disability
- > Family Structure
- > Car Ownership
- > Housing Tenure
- > English Speaking

As part of the process of understanding EFCs in LA County, these socio-demographic risk factors were correlated with opportunity factors. Ultimately, in partnership with the PAC Equity Working Group and USC PERE, we determined EFCs based on two demographic factors that have historically been determinants of disinvestment and disenfranchisement, household income and race/ethnicity, and a third factor, households with low vehicle ownership. Incorporating the characteristic of households without a car presents an opportunity to target new mobility investments in neighborhoods with a higher propensity to take full advantage of them.

The identified communities represent geographic areas that have the following socioeconomic characteristics: more than 40 percent of households are low-income and either 80 percent of households are non-white or 10 percent have no access to a vehicle. Collectively, these areas represent about 30 percent of the county’s population. EFCs are communities that have experienced historic disinvestments, reduced access to opportunity and housing, and policy decisions that have resulted in environmental justice disparities. As such, these communities have a higher degree of various negative outcomes and are those with the greatest need. EFCs are used to calculate several performance measures in the LRTP.

Title VI Analysis

A Title VI analysis is performed as part of the LRTP to assess the transportation impacts on distinct socioeconomic groups in LA County. Similar to analysis done with EFCs, Title VI analysis uses census data as the foundation for understanding socio-economic characteristics and evaluating differences in opportunities based on those population characteristics. The Title VI analysis uses the census tract geography to analyze the following transportation impacts:

- > Job accessibility within 60 minutes via transit; and
- > Mode choice by income quintile.

The results of the Title VI analysis using these designated geographies are described in Chapter 5.

Financial Model and Assumptions

The 2020 L RTP financial forecast is Metro's plan for funding the capital program. It helps determine funding strategies for capital projects and the allocation of state and federal grants. It demonstrates to our funding partners, at the state, federal, and local level, that we anticipate having the resources to meet our financial commitments. For federal New Starts funds, the financial forecast helps demonstrate to the Federal Transit Administration (FTA) that Metro has the financial capacity to build and operate the grant funded transit line.

The financial forecast covers the 30-year time horizon of the LRTP and is based on numerous cost and revenue assumptions. It funds an estimated \$400 billion of transportation capital and operating costs countywide. This figure includes all forecasted investment in transportation projects and services in LA County from FY21-2050.

The LRTP financial forecast includes all projects and programs approved by the Metro Board, including the commitments in the Measure R and Measure M Expenditure Plans. The financial forecast shows that Metro can fund these commitments on their planned schedule, as well as future state of good repair. However, the financial forecast is subject to significant risks relating to ongoing sales tax growth, successful receipt of grant funds, additional capital and operating needs, and higher than anticipated capital and operating costs. Should these risks occur, Metro will need to reassess our capital program and prioritize the funding of the many projects and programs in the LRTP.

This section of the LRTP financial forecast covers, in detail, the following.

> Revenue assumptions

- Local sales tax
- Other local revenue
- State revenue
- Federal revenue

> Expenditure assumptions (with funding plans for major projects)

- Bus program
- Rail program
- Highway program
- Multimodal program

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Major Revenue Assumptions

Metro receives revenue primarily from four separate voter-approved local sales tax measures that are dedicated for transportation purposes. Three of the sales taxes have no sunset date, and provide an unprecedented level of local financial commitment towards the construction and ongoing operations and maintenance of the capital plan. Metro also expects to benefit from a significant amount of State grant funding and other assistance created by Senate Bill 1 (SB 1), which increased the gasoline and diesel excise tax and vehicle licensing fees in California, as well as ongoing federal support through longstanding discretionary and formula transportation grant programs.

The key revenue assumptions for the LRTP include the forecasted amount of sales tax and availability of future state and federal grant funding.

This financial forecast was developed before the COVID-19 pandemic and the long-term revenue impact from the pandemic on local sales tax, state SB 1, and fare revenue, as well as the impact of federal stimulus funding is still to be determined.

Local Sales Tax Revenues

Sales Tax Revenue Growth

There are four separate 0.5 percent transportation sales taxes in LA County – Proposition A, Proposition C, Measure R, and Measure M. The revenue that Metro receives is determined by the amount of taxable sales in the county. Forecasted taxable sales are obtained from the University of California at Los Angeles (UCLA) Anderson Forecast. Based on a moving average of the forecast released in 2017 through 2019, the average sales tax growth rate is 3.66 percent from FY21 to FY50. The starting point for the sales tax forecast is the FY20 budgeted amounts of \$873 million for each of the four countywide sales taxes.

Proposition A Eligible Uses

A half-cent sales tax, passed by LA County voters in 1980, is to be used to improve public transit throughout LA County. A portion of the revenues is returned to local jurisdictions, based on population, for use on public transit projects. Revenues, after 5 percent is allocated to Metro for administration, are divided as follows:

USES	PERCENTAGE
Local Return Program	25%
Rail development and operations	35%
Discretionary (bus operations per Metro Board policy)	40%
Total	100%

All Proposition A discretionary funds (40%) are used for bus operations in accordance with established formulas.

Proposition C Eligible Uses

A half-cent sales tax, passed by LA County voters in 1990, is to be used for public transit purposes in LA County. Revenues after 1.5 percent is allocated to Metro for administration, are divided as follows:

USES	PERCENTAGE
Rail and bus security	5%
Commuter rail/transit centers/park and ride	10%
Transit-related streets/state highways	25%
Local return (direct to cities and county)	20%
Discretionary	40%
Total	100%

The discretionary funds (40%) are assumed split among rail capital and operations and bus capital and operations. Allocations between bus and rail capital and operating requirements shift over time as capital projects are built and operations begin. These funds are also used for planned replacement and rehabilitation, of capital items including buses, facilities and rail cars.

Most of the transit-related highway funds (25%) are programmed for highway-related projects, such as carpool or high occupancy vehicle (HOV) lanes. These funds are also eligible for portions of transit projects that are on a state highway or freeway and for public mass transit improvements to railroad rights-of-way.

The Commuter Rail and transit funds (10%) are used for Metrolink commuter rail, debt service, and regional park-and-ride facilities and transit centers through the Call for Projects.

The Act of 1998

Both Proposition A and Proposition C sales tax are not eligible for expenditures on “new subway,” pursuant to the Act of 1998 that was approved by county voters. This includes spending on the planning, design, construction, operation, and debt service for new subway.

Measure R Eligible Uses

A half-cent sales tax effective July 1, 2010, passed by LA County voters in 2008, is used for projects and programs as specified in the Measure R Expenditure Plan. This sales tax has a sunset date of June 30, 2039. Revenues, after 1.5 percent is allocated to Metro for administration, are divided as follows:

USES	PERCENTAGE
New Rail and/or Bus Rapid Transit Capital	35%
Metrolink Capital Improvements within LA County	3%
Metro Rail Capital System Improvements	2%
Highway Capital	20%
Local Return	15%
Rail Operations	5%
Bus Operations	20%
Total	100%

Measure M Eligible Uses

A half-cent sales tax effective July 1, 2017, which increases to a one-cent sales tax on July 1, 2039, was passed by LA County voters in 2016, and is used for the 91 projects and programs identified in the Measure M Expenditure Plan. Revenues, after 0.5 percent is allocated to Metro for administration, are divided as follows:

USES	PERCENTAGE
Rail Operations	5%
Bus Operations	20%
Paratransit Operations; Fare Discounts	2%
Transit Construction	35%
Metro State of Good Repair	2%
Highway Capital	17%
Active Transportation	2%
Local Return	16%
Regional Rail	1%
Total	100%

The capital percentage allocations or subfunds, can only be used for capital, and the operations subfunds only for transit operations.

Transportation Development Act (TDA Article 4)

Transportation Development Act (TDA) revenues are derived from one-quarter cent of the 7.25 percent statewide base retail sales tax. The funds are apportioned to each county by the State Board of Equalization according to the amount of tax collected in the county. Each year, the actual funds are allocated according to the Metro Transit Fund Allocations. Generally Metro receives approximately 74 percent and the Municipal Operators receive 26 percent of the county allocation. TDA Article 4 funds are available for bus and rail capital and operations.

Other Local Revenues

Fare Revenues

The financial forecast includes bus and rail fare revenues, initially equal to the budgeted amount in FY20. The projected fare revenues increase steadily over time to achieve a “fare recovery ratio” (fare revenue divided by transit operations and maintenance costs) of approximately 30 percent by FY50.

This key assumption may entail a combination of strategies such as reducing unproductive service, achieving operating efficiencies, reducing costs, and increasing fares and other operating revenues. The number of riders anticipated on the Metro system has declined over the last several years and has led to a historical low fare recovery ratio.

Local Agency Contributions

The Measure M Ordinance specifies that each city that has a Measure M transit station located in its boundaries shall pay 3 percent of the project costs, depending on the number of stations within the city (or unincorporated county). The financial forecast includes a 3 percent local agency contribution as a source of funding for all Measure M rail transit projects.

Lease and Advertising Revenues

Metro receives funding from land leases on Metro-owned property, advertising on Metro property, and advertising on Metro vehicles. Lease and advertising revenues total \$40.5 million in FY20 and are projected to increase proportionally with inflation over the timeframe of the financial forecast.

Toll Revenues

Metro operates ExpressLanes on both I-10 and I-110, which generate net income that is included in the financial forecast. Toll revenue from future ExpressLanes on I-105 and I-405 Sepulveda Pass, are used to pay for the costs of the respective ExpressLane.

Bonds/Debt Financing

Sales Tax Bonds – Debt financing is needed for the timely completion of scheduled major capital construction projects when annual sales tax receipts and fund balance are not sufficient to support annual expenditures. The bonds proposed are for planning purposes to assist in making long-range financial decisions and will be issued when needed to fund transit and highway capital projects. The financial forecast assumes that 4.5 percent interest on 30-year bonds.

At the time of actual need, bond issuances will be analyzed individually and approved by separate Metro Board action.

Grant Revenue Bonds – Metro has received federal New Starts grants for the Regional Connector and Westside Subway Extension projects, and anticipates future New Starts funding for additional rail projects. The grant funding is paid to Metro over time and a portion will be paid after completion of the projects. Borrowing is needed to provide funding during construction. The financial forecast assumes grant revenue bonds are used for some of the New Starts projects. The bonds are paid solely from the New Starts receipts.

Toll Revenue Bonds – The Measure M Expenditure Plan includes 2 new ExpressLanes on I-105 and I-405 through the Sepulveda Pass. Toll revenue bonds secured by the ExpressLanes revenue are included in the financial forecast for these projects. Future toll revenue bonds will explore use of system toll revenues, as opposed to corridor-specific revenues.

The total amount of debt to be issued in the financial forecast through FY49, by type of debt and by decade, is as follows (in millions\$):

TYPE OF DEBT FINANCING	'20-'29	'30-'39	'40-'49	'50-'57
Proposition A	\$810	\$495	\$910	-
Proposition C	\$1,489	\$1,821	\$680	\$6,609
Measure R	\$2,828	\$1,259	-	-
Measure M	\$6,710	\$4,697	\$3,308	\$12,681
Grant Revenue	\$1,727	-	-	-
Total	\$268	-	-	-

Debt Policy – Metro maintains a Debt Policy that identifies the types of debt that Metro will issue and places caps on the amount of sales tax that can be used to pay debt service. The financial forecast conforms to the Debt Policy, including the percentage maximums per sales tax category, as follows:

SALES TAX CATEGORY	DEBT POLICY PERCENTAGE MAX.	FINANCIAL FORECAST MAX.
Proposition A Rail 35%	87%	56%
Proposition C Transit-Related Streets 25%	60%	58%
Proposition C Discretionary 40%	40%	38%
Measure R Transit 35%	87%	85%
Measure R Highway 20%	60%	59%
Measure M Transit 35%	87%	84%
Measure M Highway 17%	87%	61%

State Revenues

The financial forecast includes all state revenues that Metro currently receives and expects to receive, with the assumption the funding program will continue to exist over the time horizon of the LRTP. A brief description of the major state revenues is provided.

Active Transportation Program (ATP)

This is a state grant program for projects, both infrastructure and non-infrastructure, that further ATP goals. Funding for the program was increased through SB 1 (as discussed see herein). Metro and all cities in the county are eligible to apply. Metro expects to receive a portion of the regional funding for highly competitive projects like the Los Angeles River Bikeway.

Low Carbon Transit Operations Program (LCTOP)

This program is funded from five percent of cap-and-trade auction proceeds and is intended for projects that increase transit mode share, replace conventional vehicles with electric zero emissions vehicle projects, support new or expanded bus or rail services, and expand intermodal transit facilities, equipment acquisition, fueling, and maintenance and other costs to operate the above services or facilities. Metro expects to receive about \$30 million per year from this program primarily for funding rail operations.

Regional Improvement Program (RIP) Funds

The Regional Improvement Program (RIP) is part of the State Transportation Improvement Program (STIP). The STIP is divided 75 percent by county shares, the RIP, and 25 percent for interregional statewide shares. The 75 percent RIP share allows Metro to select projects for funding upon approval by the CTC. Metro uses its Long and Short Range Transportation Plans to select the projects to receive such funding and be programmed in the STIP. The Metro Board approves the programming of the RIP share for capital improvements to eligible highway, bus, rail, fixed guideway, and other capital projects.

The financial forecast incorporates the RIP awards from the 2018 and 2020 STIP. The biennial STIP adds two new years of programming. The financial forecast assumes \$120 million per year will be available for Metro from the RIP, beyond the expected 2020 STIP awards. The RIP is allocated to projects including: East SF Valley Transit Corridor Project, Sepulveda Pass Transit Corridor (Ph 2), SR-710 North, I-5 and I-405 Carpool Lane Connector, and Retrofit Soundwalls Phase 1.

Senate Bill (SB 1)

SB 1 was signed into law on April 28, 2017 and contains new revenues to make road safety improvements, repair local streets, expand public transit, improve highways, and build bridges and overpasses. SB 1 provides \$5.4 billion per year over the next decade to fund transportation improvements through increases in the state excise tax on gasoline and diesel fuel, sales tax on diesel fuel, and vehicle registration fees.

The major funding programs under SB 1 are:

- > **Local Partnership Program (LPP)** – The LPP provides local and regional agencies that have passed sales tax measures, tolls, or fees or that have imposed fees which are dedicated solely to transportation improvements with a continuous appropriation of \$200 million annually (statewide) to fund road maintenance and rehabilitation, sound walls, and other transportation improvement projects. There is a competitive and formulaic portion, and Metro expects to receive about \$60 million per year from both. Projects to be funded in the financial forecast include bus replacements, Orange Line BRT Improvements, Division 20, I-5 and I-405 Carpool Lane Connector, and I-605 Corridor ‘Hot Spot’ Interchange Improvements.
- > **Solutions for Congested Corridors Program (SCCP)** – The SCCP provides funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the state. Metro expects to receive, on average, \$65 million per year in awards from this grant program for funding of projects including Airport Metro Connector, Sepulveda Pass Transit Corridor (Ph 2), and Gold Line Eastside Extension (one alignment).
- > **State of Good Repair (SB-1 SGR)** – These funds are to be made available for eligible transit maintenance, rehabilitation, and capital projects. The state distributes these funds using the State Transit Assistance Fund (STA) distribution formula and LA County subrecipients receive these funds through the annual Transit Fund Allocation process, after submittal of the required project list.
- > **Trade Corridor Enhancement Program (TCEP)** – TCEP provides funding for infrastructure improvements along corridors with high volumes of freight movement. Eligible projects will increase the use of on-dock rail, improve safety by eliminating at-grade crossings, reduce impacts to surrounding communities, reduce border wait times, and increase rail capacity with double tracking. Metro anticipates that as much as \$200 million per year, on average, could be available from this grant program. Projects receiving funds in the financial forecast include SR-57/SR-60 Interchange Improvements and I-710 South Corridor Project (Ph 1).

State Transit Assistance (STA)

STA funds are derived from the State Public Transit Account, which is funded mostly from sales tax statewide on gasoline and diesel fuels. SB 1 provides an additional \$250 million per year to STA. This additional funding will go to transit capital projects and operational costs via current funding formulas based on agency revenue and population. Metro expects to receive about \$100 million per year from STA.

The regional STA allocation for LA County is based on the County’s shares of population and transit operator revenue compared to the rest of the state. The population portion of STA is used for Metro rail operations and the operator revenue share is used mostly for Metro and municipal operator bus operations.

Transit and Intercity Rail Capital Program (TIRCP)

TIRCP was created to provide grants for capital improvements and operational investments that will modernize California’s transit systems and intercity, commuter, and urban rail systems to reduce emissions of greenhouse gases by reducing vehicle miles traveled throughout California. The program is funded from both cap-and-trade auction proceeds and SB 1 tax revenue. Metro expects to rely heavily on TIRCP with funding of as much as \$200 million per year, on average, for rail projects including West Santa Ana Transit Corridor, Green Line Extension to Crenshaw Blvd in Torrance, East SF Valley Transit Corridor Project, Sepulveda Pass Transit Corridor, Gold Line Eastside Extension, and Gold Line Foothill Extension to Claremont.

Federal Revenues

The financial forecast includes all federal transportation funding that Metro currently receives and assumes the major funding programs will continue to exist through ongoing multiyear reauthorization bills. Metro expects that major capital funding sources like the federal New Starts program will continue to be a large funding component for our planned future rail lines.

Congestion Mitigation and Air Quality (CMAQ)

The CMAQ program is designed to fund projects that contribute to attainment of national ambient air quality standards. CMAQ funds cannot be used to construct facilities providing additional capacity for single-occupancy vehicles. The financial forecast assumes that all new rail lines and various Metro bus rapid transit projects will receive CMAQ funding for operating costs during the first three years of operation. CMAQ will also be used for bus purchases, carpool lanes, and new rail projects. Metro estimates that, on average, \$130 million per year will be available.

Surface Transportation Block Grant Program (STBGP)

STBGP funds are appropriated by Congress for highway improvements but are flexible and eligible for transit capital projects, Transportation Demand Management (TDM), and improvements to highways and arterial roads. Half of the STBGP allocation to the state is assumed to go to the California State Highway Account with the remainder allocated to the regions by formula in accordance with Section 182.6 of the California Streets and Highways Code. Most of Metro's regional share of STBGP funding is assumed for paratransit uses by Access Services. Some STBGP funds have been assumed for carpool lanes and freeway gap closures/arterial widening in LA County. On average, \$140 million per year is estimated available from this program.

Section 5307 Urbanized Formula

Federal funding from FTA's Section 5307 Program is determined by federal and Southern California Association of Governments (SCAG) formulas. The funding assumed in Metro's financial forecast is equal to the actual allocation to Metro, with future estimates increased by 1.0 percent per year. Federal regulations allow Section 5307 funds to be used for preventive maintenance costs as well as capital costs. The financial forecast assumes the continued use of these funds for eligible bus preventive maintenance costs in the operating budget and for future bus replacements.

The forecast also assumes that these funds will be allocated to all eligible bus operators by formula for identified capital requirements, pursuant to the current Transit Fund Allocation (85 percent by formula and 15 percent discretionary).

Section 5309 New Starts and Small Starts

Metro has received a significant amount of funding from the federal New Starts program, with funding of almost \$400 million per year (through FY22) for Westside Subway Extension Segment 1, Segment 2, and the Regional Connector. Metro will apply for future rail projects based on their estimated competitiveness. This could include West Santa Ana Branch and Sepulveda Transit Corridor.

No future funds have been assumed from the discretionary Small Starts, Expedited Project Delivery pilot, or Core Capacity program.

Section 5339 Bus and Bus Facilities

Federal funding from FTA's Section 5339 Program totals \$65.5 million. Each state receives \$1.25 million, each territory receives \$500,000 and the remaining funding is allocated based on a formula that includes population, transit vehicles revenue miles, and transit passenger miles. The financial forecast includes \$27 million of formula funds in FY20, growing at 1.0 percent per year. Metro was awarded funding from the discretionary component of this program but no future discretionary funding is assumed. Formula funds are applied to bus midlife costs and future bus facility state of good repair.

Section 5340 Growing States and High-Density Formula

Half of the funds are made available under the Growing States factors and are apportioned based on state population forecasts for 15 years beyond the most recent census. Metro expects to receive \$9 million in FY20, increasing approximately 1.0 percent per year. The funding is allocated for Metro rail operations in the financial forecast.

Build America Bureau's Transportation Infrastructure Finance and Innovation Act (TIFIA)

Federal resources to stimulate capital market investment for developing transportation infrastructure by providing credit assistance in the form of direct loans or loan guarantees to projects of national or regional significance. Metro has participated in this program since FY12 on various rail corridors.

Revenue Assumptions

Bus Program

The major bus program assumptions include: level of bus and rail service, cost per service hour, fleet replacement schedule, and future cost per vehicle. The projected level of service is multiplied by cost per service hour, and projected fleet purchases are multiplied by the cost per vehicle. The financial forecast does not reflect any changes related to the NextGen Bus Plan and includes only the cost of replacing the Metro CNG bus fleet, as an implementation plan for a zero emission bus fleet has not yet been determined.

Bus Capital

Major Metro Rapid Bus Projects – Measure M includes several bus rapid transit (BRT) and potential BRT projects. Funding plans for five BRT projects in the financial forecast are provided, in year of expenditure dollars, in the table below.

AMOUNT OF FUNDING BY SOURCE (MILLIONS)				
PROJECT	LOCAL FUNDS	STATE FUNDS	FEDERAL FUNDS	TOTAL COST
BRT Connector Orange-Red Line to Gold Line	\$265.1	\$50.0	-	\$315.1
Lincoln Blvd BRT	\$220.3	-	-	\$220.3
North San Fernando Valley Bus Rapid Transit Improvements	\$206.5	-	-	\$206.5
Orange Line BRT Improvements	\$247.9	\$75.0	\$3,308	\$322.9
Vermont Transit Corridor	\$201.4	\$267.6	\$55.0	\$524.0

Bus Operations

New Buses and Added Service – The financial forecast estimate is for planning purposes only and does not commit Metro to any specific expenditure level or continuation of the service if restructured. The financial forecast does not incorporate any potential modifications to bus service resulting from the NextGen Bus Plan initiative.

Metro Bus Operations – Operations and maintenance cost projections are based on the Metro FY20 budget cost per service hour and revenue service hours projected by Metro Operations. The cost per service hour increases approximately 2 percent per year. Revenue service hours remain relatively flat from a low of 7,030,361 to high of 7,308,639 by FY49. Total bus operating costs increase from \$1,268.6 million in FY20 to \$2,465.7 million in FY50.

Access Services, Incorporated (ASI) – The LRTP funds complementary parallel transit services required by the Americans with Disabilities Act (ADA) at the Metro subsidy consistent with the FY20 budget plus inflation. In order for Metro to meet its share of cost growth for mandated parallel ADA services that exceed inflation, a combination of revenue increases or transit operating cost reductions will be necessary. The forecast assumes that Surface Transportation Block Grant Program (STBGP) funds will continue to be programmed for ASI. Proposition C 40 percent is also programmed to match the FTA funds.

Rail Program Assumptions

Rail Capital

Near-Term Transit Corridor Projects – Over the first ten years of the LRTP, nine transit projects may be under construction. Descriptions for each of the projects are included below. The funding sources shown are those assumed in the LRTP but may change upon future Board programming actions. All funding and cost is shown in year of expenditure dollars. The estimated opening dates are based on awarded construction contracts or most recent Metro estimate, including the preliminary start dates in the Measure M Expenditure Plan.

1. **Crenshaw/LAX Transit Corridor (scheduled to open FY21)** – The capital costs and life of project budget as of spring 2020 for the light rail line is \$2,058.0 million.
2. **Regional Connector (scheduled to open FY22)** – The estimated capital cost and current life of project budget is \$1,755.8 million. This project is funded with a New Starts grant and TIFIA loan.

D Line (Westside/Purple) Extension

3. **Segment 1 (scheduled to open FY24)** – The estimated capital cost and life of project budget as of spring 2020 is \$2,778.9 million. With grant revenue bond debt service, the cost is \$3,363.9. This project is funded with a New Starts grant and TIFIA loan.
4. **Segment 2 (scheduled to open FY26)** – The estimated capital cost and life of project budget as of spring 2020 is \$2,441.0 million. This project is funded with a New Starts grant and TIFIA loan.
5. **Segment 3 (scheduled to open FY27)** – The estimated capital cost and life of project budget as of spring 2020 is \$3,223.6 million. With grant revenue bond debt service, the cost is \$3,911.4. This project is funded with a New Starts grant.
6. **East SF Valley Transit Corridor Project (scheduled to open FY27)** – The estimated capital cost is \$1,567.7 million.

7. **Gold Line Foothill Extension to Claremont (Phase 2B) (scheduled to open FY28)** – The estimated capital cost is \$1,573.9 million. This project is being designed and constructed through the Gold Line Foothill Construction Authority. Metro will fund the design and construction and take over as operator. The current scope and budget extends the project from Azusa to Pomona.
8. **West Santa Ana Branch Transit Corridor LRT FY28 (scheduled to open FY28)** – The estimated capital cost is \$1,250.2 million for the FY28 segment that was initially envisioned in the Measure M Expenditure Plan. However, Metro is currently planning to combine the FY28 project with portions of the FY41 projects.
9. **Green Line Extension to Crenshaw Blvd in Torrance (scheduled to open FY30)** – The estimated capital cost is \$1,166.8 million.

RAIL PROJECT	AMOUNT			
	LOCAL FUNDS	STATE FUNDS	FEDERAL FUNDS	TOTAL COST
Crenshaw/LAX Transit Corridor	\$1,656.5	\$287.0	\$114.5	\$2,058.0
Regional Connector	\$599.3	\$267.0	\$889.5	\$1,755.8
D Line (Purple) Extension Segment 1	\$1,574.9	\$2.6	\$1,786.4	\$3,363.9
D Line (Purple) Extension Segment 2	\$1,085.0	-	\$1,356.0	\$2,441.0
D Line (Purple) Extension Segment 3	\$1,906.1	\$31.8	\$1,973.4	\$3,911.4
East SF Valley Transit Corridor Project	\$1,158.8	\$407.9	\$1.0	\$1,567.7
Gold Line Foothill Extension to Claremont	\$1,283.7	\$290.2	-	\$1,573.9
West Santa Ana Branch Transit Corridor	\$922.5	\$323.9	\$3.8	\$1,250.2
C Line (Green) Extension to Torrance	\$935.4	\$231.3	-	\$1,166.8

Rail Operations

Rail operations costs are based on the current cost per service hour (FY20), revenue service hour projections from Metro Operations, and estimated revenue service dates for future rail lines. The cost per service hour is escalated by the historical growth rate over the last five years. The future cost per service hour is reduced for estimated fixed administrative costs that are not expected to be incurred upon the opening of each new rail line.

Metrolink Commuter Rail – The Southern California Regional Rail Authority (SCRRA) Joint Powers Authority, or Metrolink, plans, constructs, and operates the five county commuter rail system. Metro funds the portion of the capital and operating costs for commuter rail lines and projects located within LA County. Metro also funds and manages additional commuter rail and related improvements. The financial forecast assumes continued funding for the current commuter rail system from Proposition C (10 percent) and Measure M (2 percent) commuter rail revenues.

Other Rail Costs and System Improvements – In addition to the costs associated with the construction of individual rail lines, costs to upgrade the overall rail system and for miscellaneous enhancements are included.

Transit Asset Management

Metro maintains an inventory of its rail and bus vehicles, purchases replacements at the end of the useful life and performs midlife overhauls at periodic intervals. Metro has existing replacement and midlife contracts for much of its existing vehicle fleet, with allocated funding. The financial plan includes funding for all future vehicle replacements and midlife overhauls.

In FY 2020, approximately \$530 million was allocated to maintain Metro's bus, rail and technology infrastructure in a state of good repair, including bus replacements, and related technology, on-going bus maintenance midlife and engine replacement, rail vehicle procurement, and rail overhaul. Vehicle procurement costs and other facility, infrastructure, and vehicle procurements/maintenance costs are estimated based on the existing composition and age of the vehicle fleet. From FY21 to FY50, the financial forecast funds \$14.2 billion of total SGR expenditures for Metro rail and \$10.3 billion for bus.

Vehicle Replacement Schedule – Bus vehicle replacement is based on a 12-year bus cycle and rail vehicle replacement is based on a 30-year schedule.

Vehicle Costs – Total bus and rail vehicle costs are presented below. These costs assume replacements with alternative-fueled vehicles and are escalated annually by CPI starting in FY20. The costs are based on Metro's most recent procurements.

TYPE	AMOUNT
40-Foot Bus	\$693,338
60-Foot Bus	\$1,070,308
Heavy Rail Vehicle	\$4,978,716
Light Rail Vehicle	\$4,681,971

Facilities and Support Equipment – Costs for bus capital projects are based on Metro's Transit Asset Management database.

Highway Program Assumptions

The highway component adds the estimated total escalated cost of all Measure R, Measure M, and other Board-approved highway projects and programs.

Active Transportation

The financial forecast includes \$559.4 million for specific active transportation projects, in addition to those in the Measure M multi-year subregional programs. The projects are funded with a combination of Measure M funds and state active transportation grants.

Freeway Carpool Lanes [High Occupancy Vehicle Lanes (HOV)]

The financial forecast provides for the implementation of HOV projects identified in the Measure R and Measure M Expenditure Plans. Project cost estimates are provided by Caltrans District 7 or Metro. Carpool lanes, not including ExpressLanes, and related project expenditures are \$1.5 billion (escalated) from FY20 to FY50.

Freeway Gap Closures, Interchanges, and Arterial Widening

Project cost estimates were provided by Caltrans District 7 or Metro. These projects have total expenditures of \$16.2 billion (escalated) in the financial forecast.

Freeway Service Patrol

Continued funding for this program is assumed primarily through Proposition C 25 percent, Freeway Service Patrol State Highway Account Funds, and HOV violation funds. The Proposition C 25 percent funding is assumed to grow annually by CPI.

Intelligent Transportation System (ITS)

This program aims to efficiently utilize advanced technologies in Southern California's transportation systems. For the Regional Integration of the ITS, the financial forecast assumes an average of \$1.7 million of Proposition C 25 percent funds escalated by CPI.

Local Streets and Roads

Estimated local funding through the State Gas Tax subventions, earmark exchange, use of surplus Measure R, and allocation of STBGP local funds of \$21.7 billion are assumed received by the County and the cities in LA County through FY50. The funding includes augmented gas tax funding from SB 1.

Multi-year Subregional Programs

Highway eligible funding for the Measure M Multi-Year Subregional Programs totals \$6.9 billion escalated through FY57. The specific projects are and will be identified by the subregions, subject to Metro guidelines and Ordinance restrictions, which include active transportation, first-last mile, highway efficiency, and modal connectivity eligible projects.

Operations, Caltrans

Estimated State Highway Account funds of \$8.0 billion are assumed for Caltrans District 7 operations.

Retrofit Soundwalls

The Retrofit Soundwalls program encompasses freeways previously constructed without necessary soundwalls. This program has been a Metro responsibility since Senate Bill 45 took effect in 1998. The program has two phases: three priorities in Phase I and unprioritized projects in Phase II. Completion of Phase I totals \$459.2 million through FY40 funded with Proposition C 25 percent, Measure R, and RIP funds. Phase II, for soundwalls on freeways without carpool lanes and therefore not eligible for Proposition C 25 percent, are not funded in the financial forecast.

Rideshare/Vanpool Program

Since FY03, Metro has directly operated countywide rideshare services with over 100,000 registrants currently. In May 2007, the Vanpool Program was added, providing lease and fare incentives to new and existing vanpools. Total funding of \$452.5 million (Proposition C 25 percent and RIP) is assumed through FY50.

Service Authority for Freeway Emergencies (SAFE)

A separate legal entity that is housed within Metro, SAFE operates call boxes along the freeways, the #399 Mobile Call Box program, and the 511 Traveler Information System. It is funded by a \$1 surcharge on each of the seven million registered vehicles in the County. Cost estimates and assumptions are based on the SAFE Ten-Year Financial Plan and include capital requirements and operations and maintenance expenses.

State Highway Operation and Protection Program (SHOPP)

Every four years, Caltrans prepares a SHOPP plan that identifies needed projects for maintenance and safety repairs. Caltrans administers this program and allocates funding throughout California as-needed. Funding for this program is significantly increased from SB 1 fuel taxes. An estimated amount allocated to LA County is assumed for reference and comparison to other counties.

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Travel Demand Model, Assumptions, and Forecast

The development of the 2020 LRTP was preceded by a rigorous assessment of the analytical tools, assumptions, and performance criteria that would be employed in the evaluation of potential plan alternatives. The primary analysis tool is the Metro Travel Demand Simulation Model. This appendix provides a technical summary of the travel demand modeling process and performance measure analyses conducted as part of the 2020 LRTP development effort.

Metro Model Overview

Travel demand modeling evaluates existing and future socioeconomic conditions, transportation networks, land-uses, and pricing data to estimate future travel patterns.

Key inputs include:

- > Demographic and socioeconomic data (population, households, income, auto ownership, and jobs)
- > Transportation network data (existing and approved roadway and transit projects)
- > Pricing data (transit fares and fuel costs, maintenance estimates, parking, tolls, etc.)

Key outputs include:

- > Trip generation (number of trips made)
- > Trip distribution (where those trips go)
- > Mode choices (how the trips will be divided among the available modes of travel)
- > Trip assignments of vehicle and transit trips (predicting the route trips will take)

Travel demand models can test “what-if” scenarios, based on variations of inputs, providing decision makers with the best predictions of how well a project may be utilized, how a project may be implemented, and what benefits and impacts a project may have on the rest of the transportation network, community, and environment.

Metro’s travel demand model includes the officially adopted Southern California Association of Governments (SCAG) forecasts of socioeconomic data. The Metro model also includes future transportation projects included and defined in Metro’s Long Range Transportation Plan and SCAG’s Regional Transportation Plan (RTP). Socioeconomic data forecasts are updated every four years by SCAG in cycle with the update of the RTP. These forecasts are developed by SCAG in coordination with local jurisdictions.

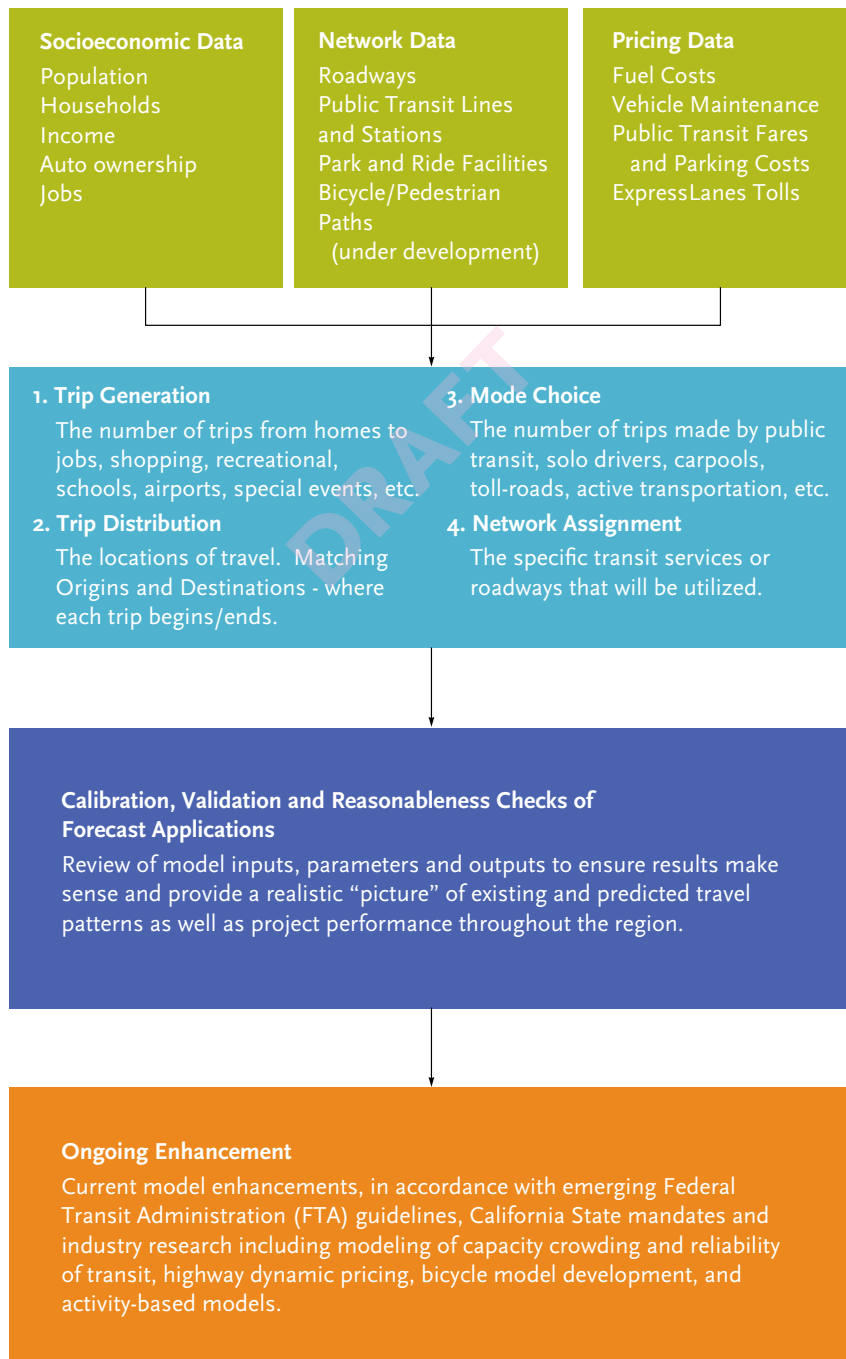
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Travel Demand Model Components

The Metro travel demand modeling program components are illustrated in Figure 13.

Figure 13

Travel Demand Model Components



Model Structure and Key Details

The Metro Travel Demand Simulation Model uses the traditional four-step process generally employed by travel forecasting modelers throughout the United States. The four steps are trip generation, trip distribution, mode choice, and network assignment. Figure 14 is a conceptual representation of the four-step modeling process. The implementation of the travel demand modeling process is achieved through a series of 17 computer simulation modules. Figure 15 is a flowchart that illustrates the process.

Figure 14

Travel Demand Modeling Process

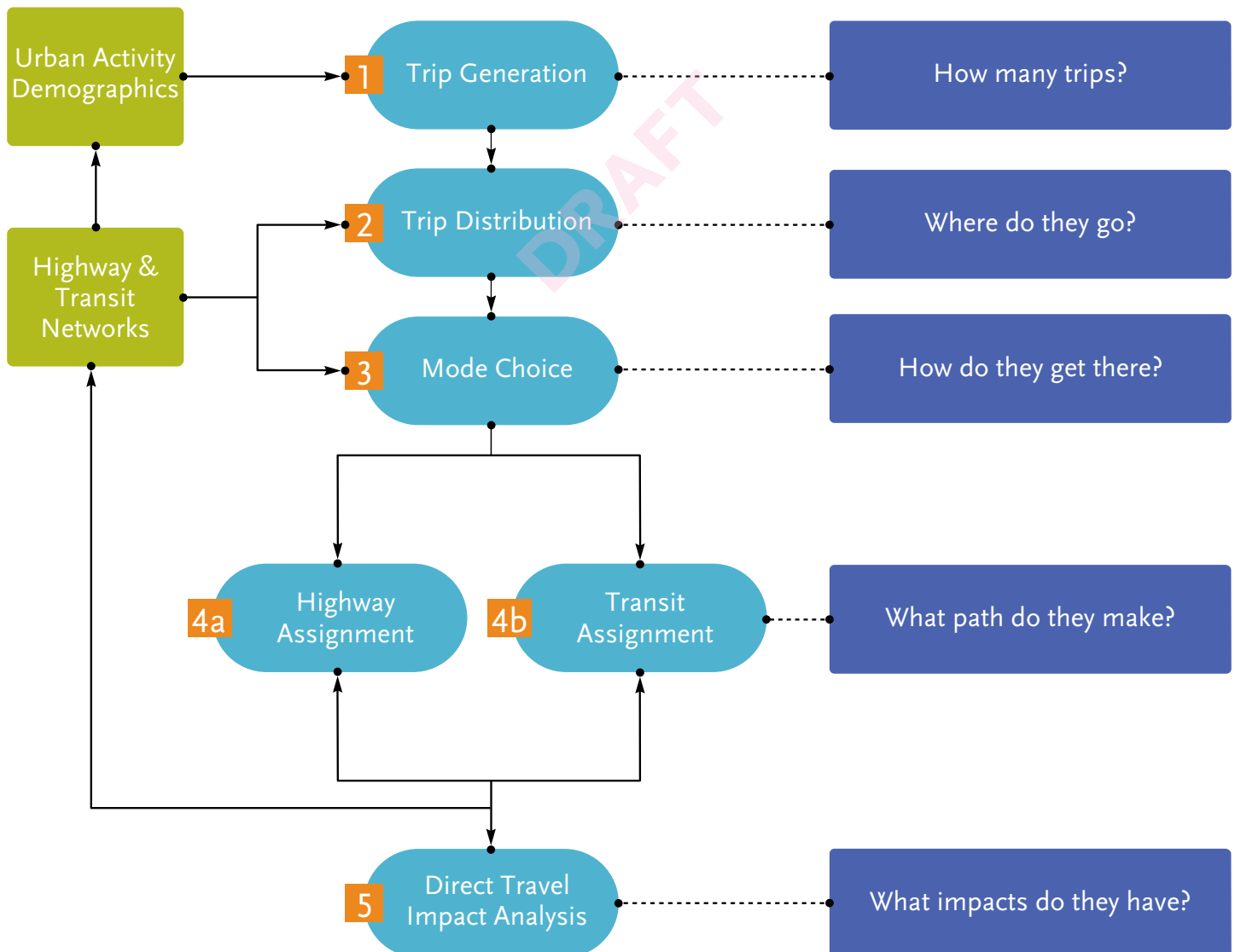
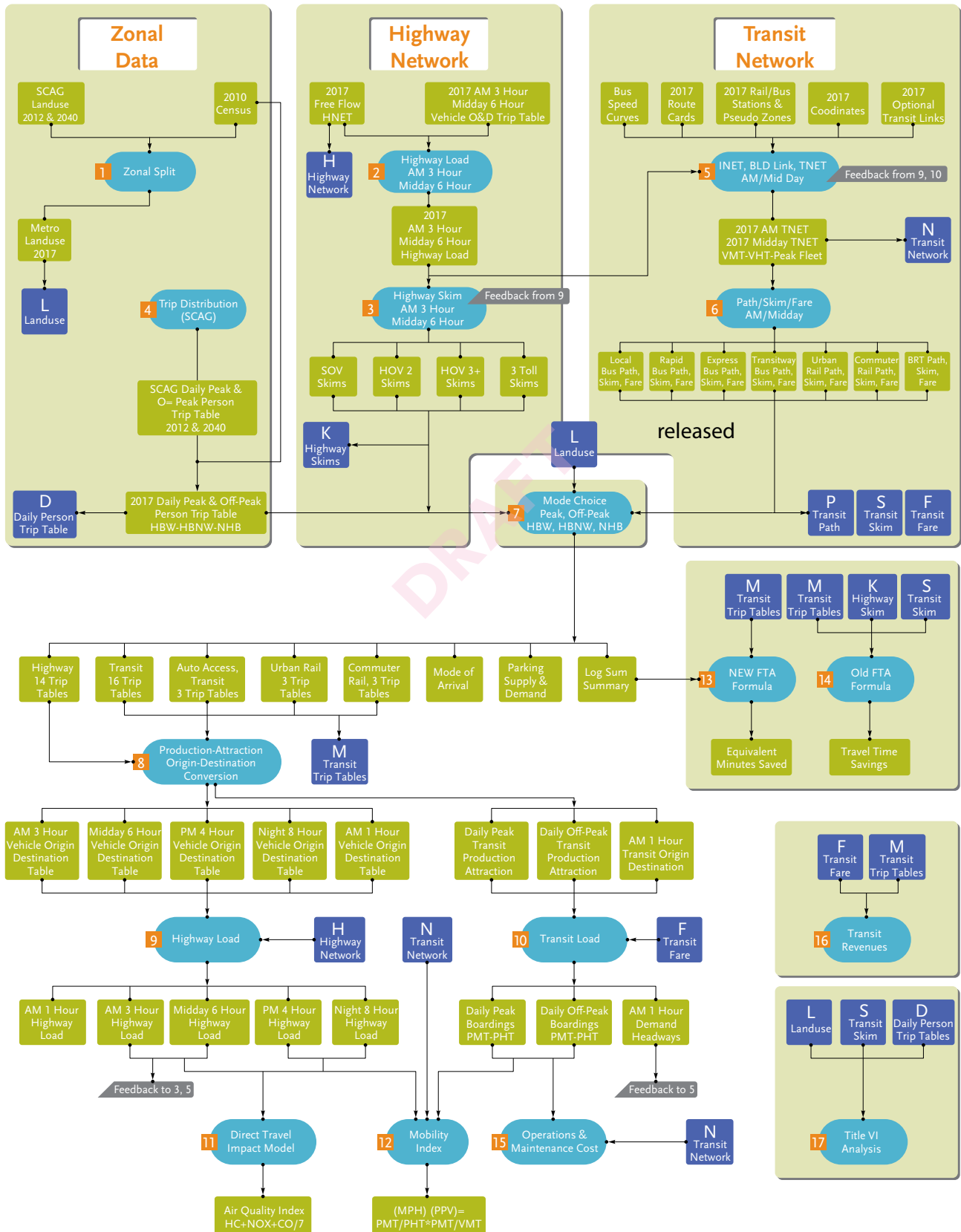


Figure 15

Metro Long Range Transportation Plan Base Year (2017) Model Flowchart



Each module has been calibrated from observed data, typically from a sample of household interviews from which detailed demographic and travel characteristics are collected through written questionnaires. The current Metro Travel Demand Simulation Model is the Year 2017 (Base Year) Model that was developed for the 2020 LRTP for LA County. The 2017 Model is the latest and most sophisticated evolution of the Metro Model originally developed in the early 1970s.

The trip generation component of the Metro Model is primarily based on the 1967, 1976, 1991, and 2011 home interview surveys for the Los Angeles metropolitan area that were conducted by the California Department of Transportation (Caltrans) and SCAG. The trip distribution and mode choice modules were updated using the 2010 Census, the Year 2010 Post-Census Regional Travel Survey, the 2011 On-Board Surveys on light-rail, heavy-rail and bus, and the 2010 On-Board Survey of commuter-rail patrons.

The 2017 Model was validated for its ability to replicate 2011 travel patterns and conditions using transit ridership statistics

and the survey data from which it was calibrated. The model performed within standard limits for all components including average trip length, mode shares, and comparisons of transit boardings.

For the 2020 LRTP, the 2017 Model has been updated to reflect 2017 as the base year and 2047 as the forecast year. The process includes updating the input socioeconomic data and the modification of highway and transit networks for the years 2017 and 2047.

For mobility and ridership analysis, fundamental spatial units are based on tracts of Census 2000 and 2010. The Metro modeling area is identical to the SCAG modeling area which encompasses six counties, namely Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial counties. It is illustrated in Figure 16. The area is represented by a total of 3,800 transportation analysis zones (TAZs), of which 3,017 are in the internal modeling area, 40 represent cordons, and 742 are pseudo zones. The 2,286 TAZs in LA County are aggregated into Metro's nine subregions.

Figure 16

TRAVEL DEMAND MODEL AREA



Model Assumptions

Each input to the Metro Model is a representation of the characteristics of the trip, the trip maker, or the transportation system. This information is usually employed at the census tract level but may include some distributions of characteristics within the census tract. All inputs for the 2017 validation used empirical data compiled from a variety of sources as described in Figure 17.

Figure 17

Model Validation Data

MODEL COMPONENT	INPUT DATA	DATA SOURCE	OUTPUT DATA
Urban Activity	General Plans, Population, Employment, Licensed Drivers	Municipalities, Census Bureau, Bureau of Labor Statistics, Dept. of Economic Development	Population, Employment, household demographic data by Zone
Highway & Transit Networks	Highway facilities, Transit services	Caltrans, Municipalities, Transit Operators	Zone-to-zone travel time and cost by time period
Trip Generation	Population, employment, household demographics	Southern California Association of Governments	Trip productions and attractions by zone
Trip Distribution	Trip productions and attractions by Zone & Zone-to-zone travel time,	Southern California Association of Governments, Census Transportation Planning Products (CTPP) based on American Community Survey	Zone-to-zone trip volumes by purpose
Mode Choice	Zone-to-zone trip volumes, Zone-to-zone travel time, Zone demographic data, Parking costs, Fuel/auto operating costs, Transit fares	Trip Distribution Model, Transportation Networks, Urban Activity Model, Parking Posted Rate, Surveys Transit Operators	Zone-to-zone trips by purpose and mode of travel
Network Assignment	Transportation Networks, Zone-to-zone trips by purpose and mode	Transportation Networks, Mode Choice Model	Volumes on highway facilities and patronage on transit services

Projections for the planning horizon year 2047 were obtained from many of the same sources. The model then uses its econometric and behavioral formulations to project travel response and transportation system impacts under a variety of transportation system environments and conditions. However, there are several major assumptions that either reflect a continuation of existing trends or fall into the policy arena. If the future varies from these assumptions, the projected future year results will likely be different from those projected by the model. These assumptions are:

- > The growth and distribution in population, employment, income, and vehicle ownership will occur in accordance with the projection adopted by SCAG in 2016;
- > The per-mile vehicle operating cost will not change in constant dollars (i.e., changes in fuel prices and fuel economy offset one another but rise with inflation);
- > The model was calibrated utilizing the 2011 transit fare structure and updated during a model validation in 2017 with the 2017 fare structure in place at that time. The 2011 calibration made use of the 2011 on-board survey, and the model was validated to 2017 data;
- > Parking costs will rise with inflation and the location and application of parking costs will not change significantly from today (that is, the location of free versus pay parking, employer subsidies, etc.);
- > The need or distribution of travel will not change dramatically due to a major movement to a round-the-clock business day or a major displacement of work trips by telecommuting; and,
- > The current highway and transit levels-of-service will not change dramatically from today (except for planned system improvements and the projected congestion effects) due to potential large-scale Intelligent Transportation System implementation.

Alternatives Modeled

Four primary model runs were conducted for the L RTP. These include:

1. 2017 Base (and Validation Year) – the Existing Conditions Model Network;
2. No Build (2047) – the Trend Model Network which includes the 2047 demand on the base condition (2017), assuming implementation of no further projects;
3. Measure M (2047) – the 2047 demand on the Measure M Expenditure Plan transportation system;
4. 2020 Plan (2047) – the 2020 L RTP includes all major transit and highway projects with committed funding or partially committed funding, existing programs and policies, collaboration with our partners, and new policies and initiatives to achieve our regional goals.

The L RTP maximizes these benefits through the addition of expanded programs, such as ExpressLanes, off-peak transit services and active transportation network expansion; partnerships to enhance transit, active travel, goods movement, and community development; and bold policies, such as reduced transit fares, a reimagined bus system and congestion pricing.

The highway and transit projects that comprise the Measure M Expenditure plan (Measure M) model run are summarized in Figure 18 and Figure 20 and illustrated in Figure 19 and Figure 21.

Figure 18
Expenditure Plan Transit Projects

LABEL	DESCRIPTION/LIMITS
1	Airport Metro Connector 96th St. Station
2	Westside Purple Line Extension Section 3
5	Gold Line Foothill Extension to Claremont
6	Orange Line BRT Improvements
7	BRT Connector Orange/Red to Gold Line
9	East San Fernando Valley Transit Corridor Project
10	West Santa Ana Transit Corridor LRT
11	Crenshaw/LAX Track Enhancement Project
17	Vermont Transit Corridor
19	Green Line Extension to Crenshaw Blvd in Torrance
22	Sepulveda Pass Transit Corridor (Phase 2)
24	Gold Line Eastside Extension (One Alignment)
30	Crenshaw Northern Extension
35	Lincoln Blvd BRT
36	*Green Line Eastern Extension (Norwalk)
40	*Sepulveda Pass Westwood to LAX (Phase 3)
41	*Orange Line Conversion to Light Rail
44	*Gold Line Eastside Extension (Second Alignment)

Notes: *= Measure M project, to be completed after 2047

Figure 19
2020 PLAN TRANSIT PROJECTS MAP



Figure 20

Expenditure Plan Highway Projects

LABEL	DESCRIPTION/LIMITS
3	High Desert Multi-Purpose Corridor
4	I-5 North Capitol Enhancements (SR-14 to Lake Hughes Rd)
12	SR-71 Gap from I-10 to Rio Rancho Rd
15	Sepulveda Pass Transit Corridor
18	SR-57/SR-60 Interchange Improvements
20	I-710 South Corridor Project
21	I-105 Express Lane from I-405 to I-605
29	I-5 Corridor Improvements (I-605 to I-710)
32	I-405/I-110 Interchange HOV Connection Ramps and Interchange Improvements
33	I-605/I-10 Interchange
34	SR-60/I-605 Interchange HOV Direct Connectors
37	I-405 South Bay Curve Improvements
61	*I-605 Corridor "Hot Spot" Interchange Improvements
	Hot3+ Projects Not Funded by Measure M
1	I-110 from SR-91 to I-405
2	I-10 from I-605 to Los Angeles/San Bernardino County Line
3	I-405 from I-101 to Los Angeles/Orange County Line
4	I-605 from I-10 to Los Angeles/Orange County Line

Notes: *= Measure M project, to be completed after 2047

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Figure 21
2020 PLAN HIGHWAY PROJECTS MAP



Model Inputs

The basic inputs to a travel demand simulation model include socioeconomic data and the transportation networks (both highway and transit). This section describes the socioeconomic data and the network information used in the Model for the 2020 LRTP development.

Transportation Networks

The transportation networks in the 2017 Model were updated from the 2011 conditions (calibration year) to 2017 conditions (validation year). Networks representing year 2047 with 2020 LRTP Improvements were also developed.

2017 Base Year Conditions

Figure 22 depicts the highway links included in the computer network file representing the year 2017 highway network. The network consists of 21,361 nodes and 66,739 links. They cover all freeways as well as major, primary and secondary arterials within the five-county modeling area.

Highway free-flow speed, lane capacities, and volume-delay functions vary by facility types and area types and are assumed as presented in Figure 23.

Figure 22

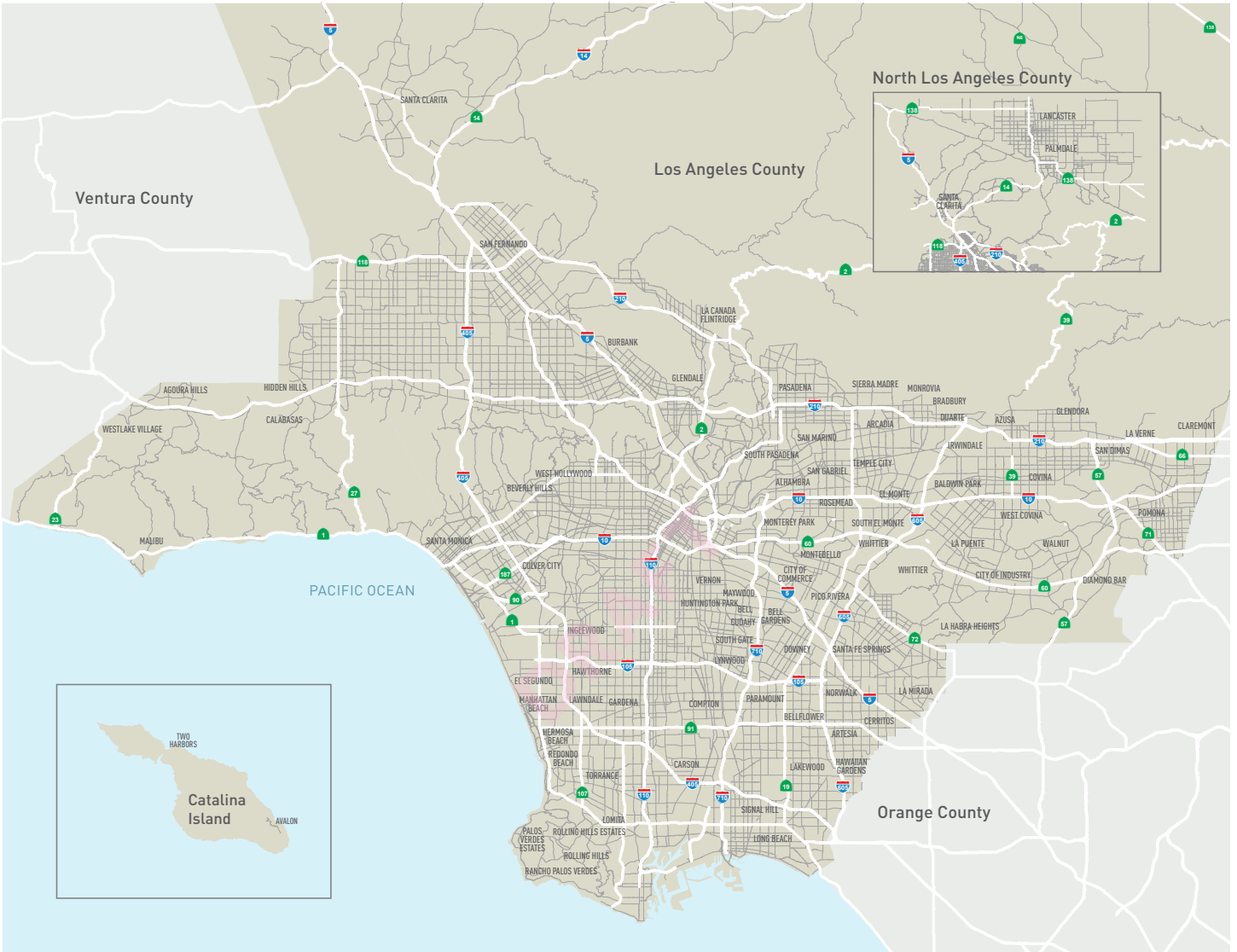
Highway Free Flow Speeds and Lane Capacities

	FREE-FLOW SPEED				LANE CAPACITY			
	FREEWAYS	MAJOR ARTERIAL	PRIMARY	SECONDARY	FREEWAYS	MAJOR ARTERIAL	PRIMARY	SECONDARY
CBD	72	20	20	20	1950	625	575	500
Urban	72	30	30	25	1950	650	600	525
Suburban	72	35	35	30	1950	675	625	550
Mountain	72	40	40	35	1950	800	800	800
Rural	72	50	50	50	1950	900	900	900

Volume-Delay function

$$\begin{aligned}
 \text{(Time in traffic)} &= \text{(Free-flow Time)} + \text{(Delays)} \\
 &= \text{(Free-flow time)} * \{1 + \alpha * [(\text{Volume}/\text{Capacity})^\beta]\}, \\
 (\alpha, \beta) &= (1.16, 4.33) \text{ for freeways and } (0.15, 5) \text{ for arterials.}
 \end{aligned}$$

Figure 23
METRO 2017 HIGHWAY NETWORK



A summary of the 2017 highway network by facility type for each subregion is provided in Figure 24. Countywide, a total of 22,500 lane-miles of roadway are represented in the network. Among them, 5,100 lane-miles, or 23 percent are freeway. The San Gabriel Valley subregion has the highest amount of freeway lane-miles while the Gateway Cities subregion has the highest concentration of arterial facilities.

Figure 24

Summary of Highway Lane-Miles by Facility Type and Subregion in LA County (2017 – 2047)

SUBREGION	2017			2047		
	FREEWAY	ARTERIAL	TOTAL	FREEWAY	ARTERIAL	TOTAL
Arroyo Verdugo	301	751	1,052	312	751	1,063
Central Los Angeles	704	2,239	2,944	708	2,239	2,947
Gateway Cities	786	2,953	3,738	912	2,953	3,965
Las Virgines/Malibu	92	351	443	92	351	443
North LA County	731	2,828	3,558	842	2,863	3,706
San Fernando Valley	801	2,386	3,188	817	2,386	3,203
San Gabriel Valley	1,052	2,467	3,519	1,076	2,467	3,544
Southbay Cities	384	1,973	2,358	423	1,973	2,396
Westside	240	1,028	1,269	254	1,028	1,282
Total	5,092	16,976	22,068	5,437	17,012	22,449

SUBREGION	2017			2047		
	FREEWAY	ARTERIAL	TOTAL	FREEWAY	ARTERIAL	TOTAL
Los Angeles	5,092	16,976	22,068	5,437	17,012	22,449
Orange	1,789	4,712	6,501	1,798	4,712	6,510
Riverside	2,072	4,695	6,767	2,072	4,695	6,767
San Bernardino	2,589	6,590	9,179	2,589	6,590	9,179
Ventura	497	1,747	2,243	497	1,747	2,243
Imperial	420	944	1,363	420	944	1,363
Total	12,458	35,664	48,122	12,813	35,699	48,512

Transit networks are coded in accordance with highway networks. The modal designations include: Metrolink 10, Metro urban rail 13, Metro buses (bus rapid transit 26, rapid bus 24, transitway 25, express bus 12, local bus 11) and various municipal operators 14-23. The non-transit modal designations are sidewalk transfer walk 1, walk access 2, walk egress 3, driving/walk time inside Park-and-ride station 5, bicycle access 6 and bicycle egress 7.

In 2017, transit service was coded in the computer model's network to reflect the conditions existing at that time. In LA County this included approximately 554,000 route-miles of bus service (Metro and municipalities), 21,200 route-miles of Metro Rail service, and 8,500 route-miles of commuter rail (Metrolink) service in the region.

2020 Plan (2047 Future Year)

The 2020 Plan includes highway and transit improvement projects listed above in Figure 18 and Figure 20. These projects are assumed to be completed by 2047. The 2017 Base Year highway network and transit network were modified to reflect the completion of these projects.

The highway projects included in the 2020 Plan will add 345 lane-miles of freeways and 35 lane-miles of new/upgraded arterials. Combined, they represent a seven percent increase in freeway lane-miles and 0.2 percent increase in arterial lane-miles in LA County.

In addition, the 2020 Plan will add substantial transit infrastructure to the network. The 2047 transit service was coded in the model networks to reflect the future planned transit network. In LA County, this includes approximately 563,000 route-miles of bus service, 50,500 route-miles of Metro Rail service, and 8,500 route-miles of commuter rail service in the region. These increases over 2017 represent additional lines as well as increased service on existing lines.

Socioeconomic Forecast

The socioeconomic input data to the Metro model are consistent with the SCAG forecast. The latest official forecast released by SCAG is the "2016 RTP" version, used to develop the 2016 RTP adopted by the Regional Council. Population and employment are the main socioeconomic inputs to a travel demand model. For the LRTP, population and employment estimates by TAZ for 2011, 2017, and 2047 were derived from the population and employment data contained in SCAG's 2016 RTP.

Population Forecasts

The analysis of population growth was conducted regionally by county and at a subregional level for LA County. Figure 25 shows that LA County's population is forecast to grow by 17 percent from approximately 10.2 million in 2017 to 11.9 million in 2047. The six-county region's population is forecasted to grow by 21 percent during the same period, from 18.8 million in 2017 to 22.8 million in 2047. LA County's share of the regional population is estimated to slightly decrease from 54 percent in 2017 to 52 percent in 2047.

Population growth trends by subregion within LA County are depicted in Figure 26. Gateway Cities was the most populous subregion in the county with 2 million in 2017. In 2047, Central Los Angeles is expected to become the most populous subregion with 2.5 million residents forecasted. North Los Angeles County is expected to experience the highest rate of population growth, growing from 0.7 million in 2017 to 1.1 million in 2047, a growth of 49 percent.

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Figure 25

Population Growth by County (2017 – 2047)

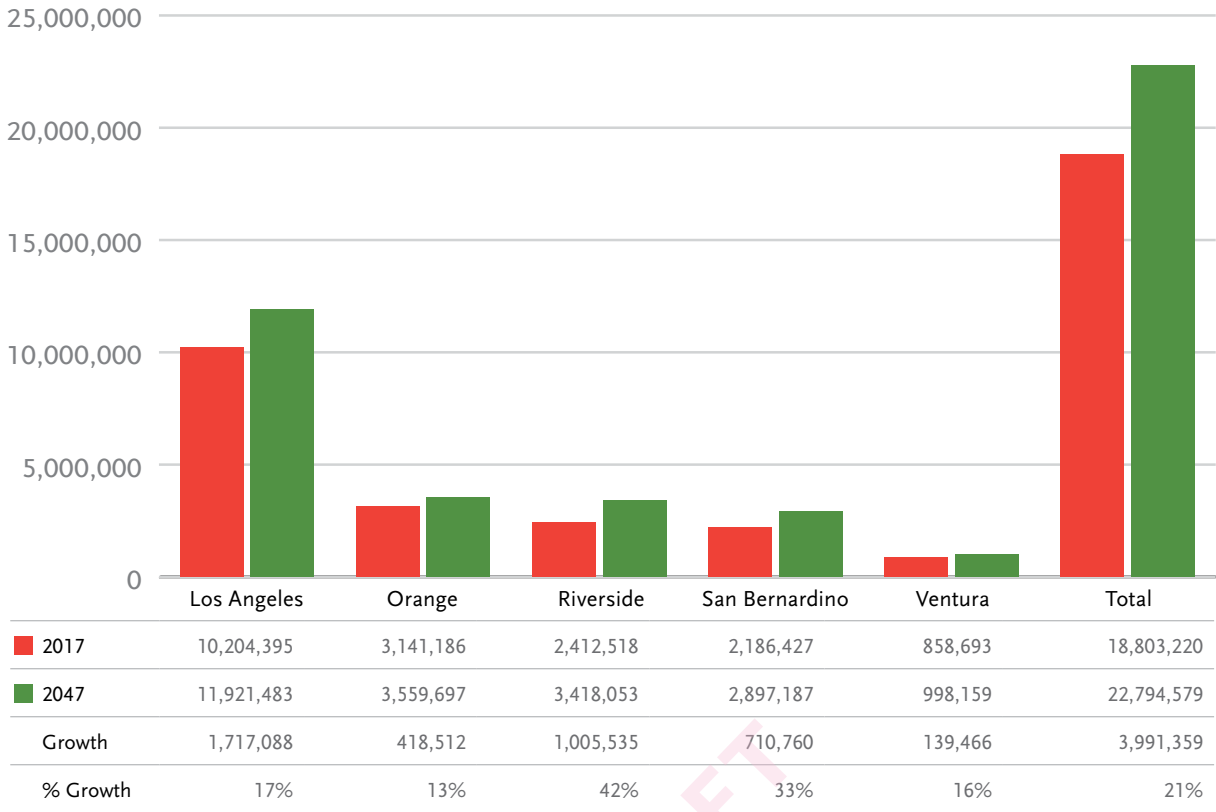


Figure 26

Population Growth by Subregion (2017 – 2047)



Employment Forecasts

Figure 27 shows that LA County employment is expected to grow by 24 percent from 4.4 million in 2017 to 5.5 million in 2047. The region's employment is expected to grow by 33 percent during that period, from 7.8 million in 2017 to 10.3 million in 2047. LA County's share of the regional employment is estimated to decrease from 57 percent in 2017 to 53 percent in 2047.

Figure 28 depicts employment growth in the subregions in LA County. In 2017, the Central Los Angeles subregion had the highest employment with 790,000 jobs. In 2047, Central Los Angeles is expected to continue to have the most employment with 1.05 million jobs. North Los Angeles County is expected to experience the highest rate of job growth, growing by 53 percent from 2017 to 2047.

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Figure 27

Employment Growth by County (2017 – 2047)

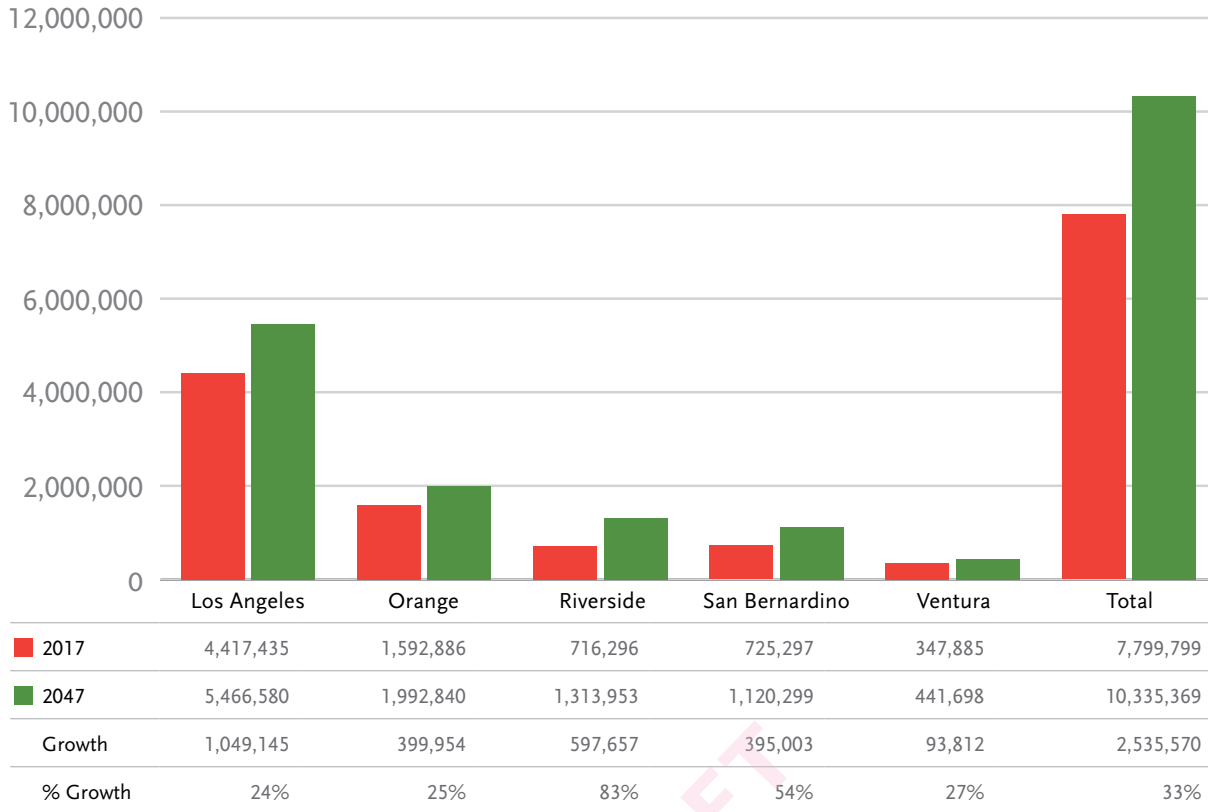


Figure 28

Employment Growth by Subregion (2017 – 2047)



Model Outputs

The basic outputs from a travel demand simulation model include trip productions and attractions, trip tables between TAZs, trip tables by mode, and trip assignments. This section describes the outputs of the Model for the 2020 LRTP.

Trip Generation

Trip generation is the process of estimating how many daily person trips are generated by households within each TAZ. SCAG's trip generation model generates trips for the following thirteen (13) purposes:

1. Home-Based Work Direct – Low-Income
2. Home-Based Work Direct – Middle-Income
3. Home-Based Work Direct – High-Income
4. Home-Based Work Strategic – Low-Income
5. Home-Based Work Strategic – Middle-Income
6. Home-Based Work Strategic – High-Income
7. Home-Based School
8. Home-Based University
9. Home-Based Shop
10. Home-Based Social/Recreation
11. Home-Based Other
12. Work-Based Other
13. Other-Based Other

Using the population and employment estimates for 2017 and 2047 as input, SCAG's trip production model and trip attraction model are applied to estimate the trips produced from and trips attracted to each TAZ.

Trip Productions

The results of trip production are summarized in Figure 29. Figure 29 shows that productions in LA County are expected to grow from 35.4 million in 2017 to 40.8 million in 2047, a growth of 15 percent. Riverside County is expected to experience the highest growth rate, at 48 percent while Los Angeles and Orange County have the lowest growth rates. Figure 30 illustrates the growth by subregions in LA County. North Los Angeles County is expected to experience the highest rate of growth in trip production at 45 percent while Central Los Angeles is expected to produce the largest number of trips, at 8.2 million.

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Figure 29

Total Daily Trip Production by County (2017 – 2047)

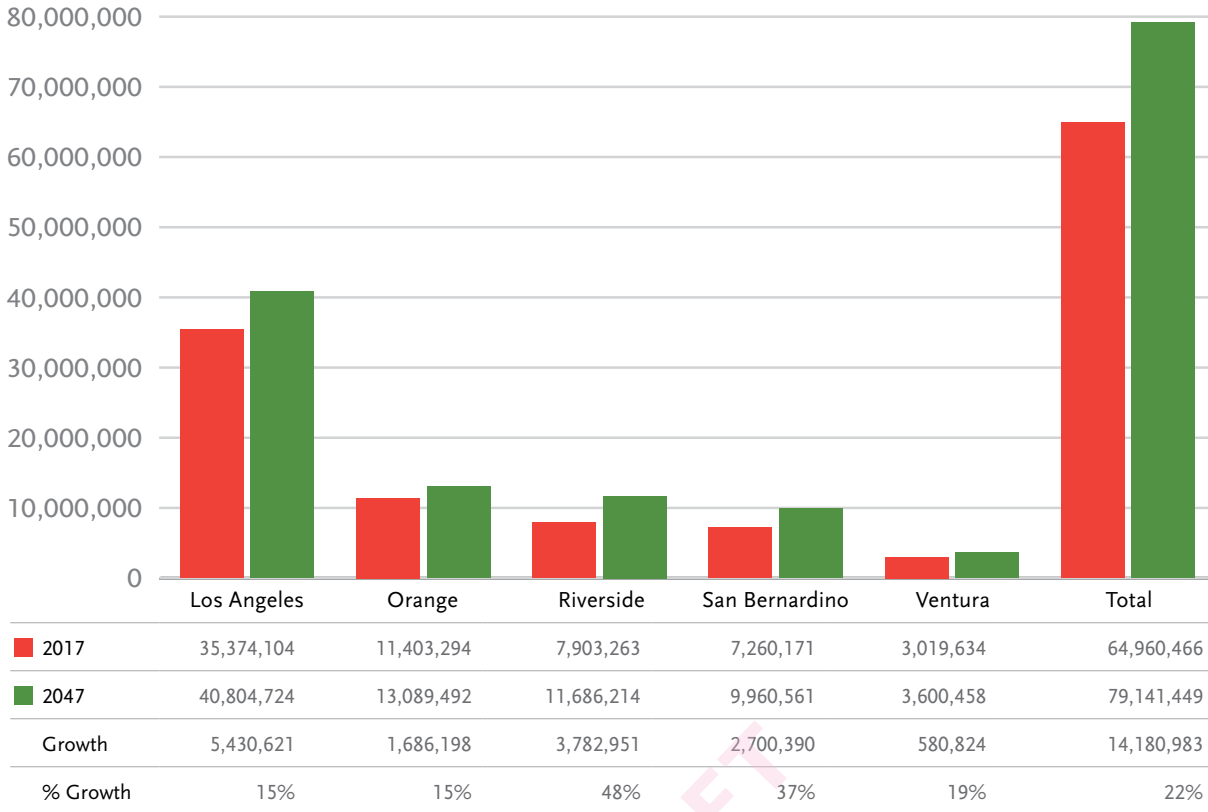


Figure 30

Total Daily Trip Production by Subregion (2017 – 2047)



Trip Attractions

The results of trip attraction are summarized in Figure 31. Figure 32 illustrates that LA County is expected to be the largest trip attractor in the region in 2047, with 40.8 million trips, a growth of 15 percent over 2017. Riverside County is expected to experience the highest growth rate, of 52 percent from 2017 to 2047. Figure 32 shows the attraction growth by subregions in LA County. North Los Angeles County is projected to experience the highest rate of growth at 39 percent while Central Los Angeles is expected to attract the largest number of trips, at 7.6 million.

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Figure 31

Total Daily Trip Attraction by County (2017 – 2047)

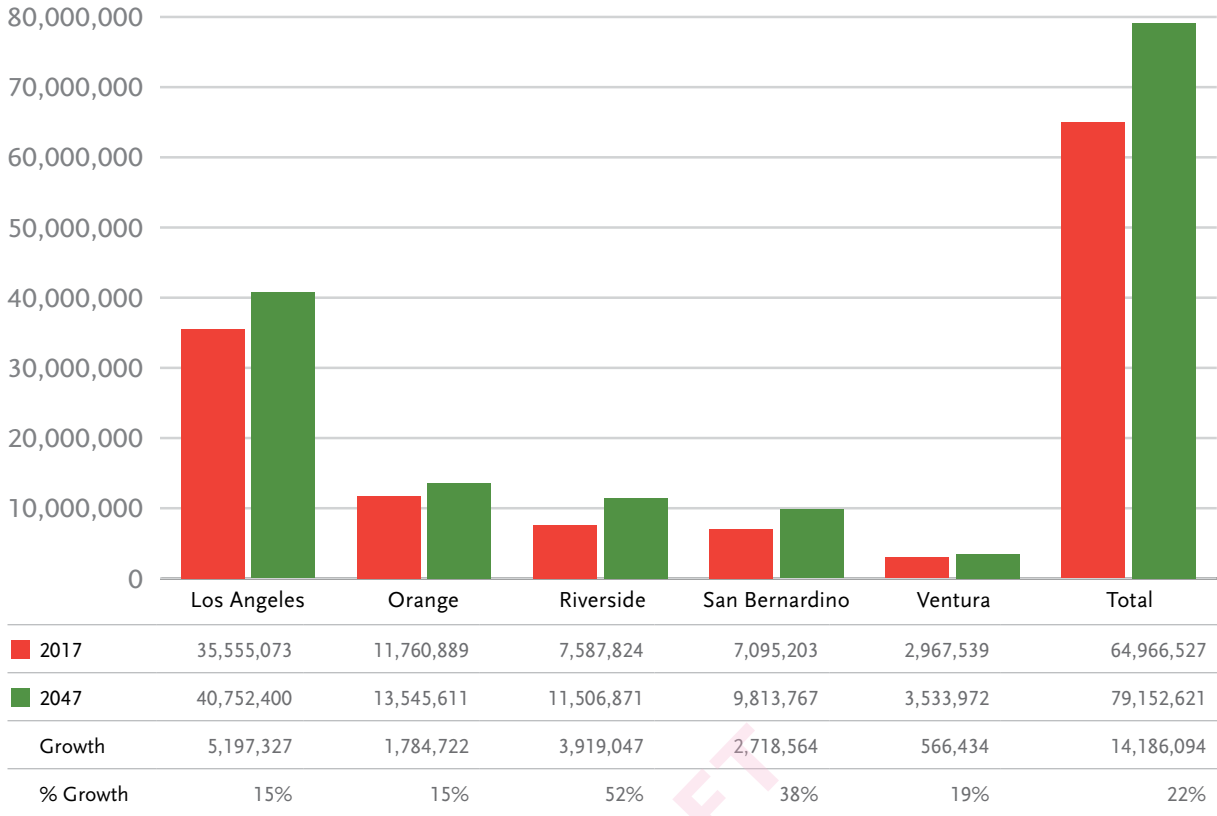


Figure 32

Total Daily Trip Attraction by Subregion (2017 – 2047)



Trip Distribution

Trip distribution is the process where person trip productions (for each TAZ) are linked to specific attraction TAZs, thereby creating a “trip table” of trip interchanges between TAZs. The SCAG trip distribution model created trip tables for 2012 and 2040. We interpolated those trip tables to create the 2017 trip tables and extrapolated to create the 2047 trip tables.

Years 2017 & 2047

Figure 33 summarizes the trip distribution patterns for 2017 daily peak period home-based work trips in each subregion of LA County. The large pie in the lower left corner of the exhibit shows the number of home-based work trips produced by each subregion. The Central Los Angeles subregion produces the largest number of home-based work trips—884,100. The Gateway Cities subregion produces the next highest number at 759,100.

Figure 33 also displays the home-based work trip production activity within each subregion, as represented by the smaller pies. The largest interaction within each subregion occurs intra-subregion; that is, the largest percentage of home-based work trips within each subregion stays internal to that subregion. For the San Gabriel Valley subregion, the second highest interaction occurs with trips headed outside LA County (at 15 percent), followed by trips to Central Los Angeles (at 12 percent).

Figure 34 displays the trip distribution patterns for 2047 daily peak period home-based work productions in the subregions of LA County. The Central Los Angeles subregion is expected to produce the largest number of home-based work trips, at 1.2 million, with the Gateway Cities subregion following at 836,300 trips. The largest interaction within each subregion occurs intra-subregion. For the San Gabriel Valley subregion, the second highest interaction occurs with trips destined outside of LA County, at 21 percent.

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Figure 33

PEAK PERIOD HOME-TO-WORK TRIP PRODUCTIONS BY SUBREGION, 2017

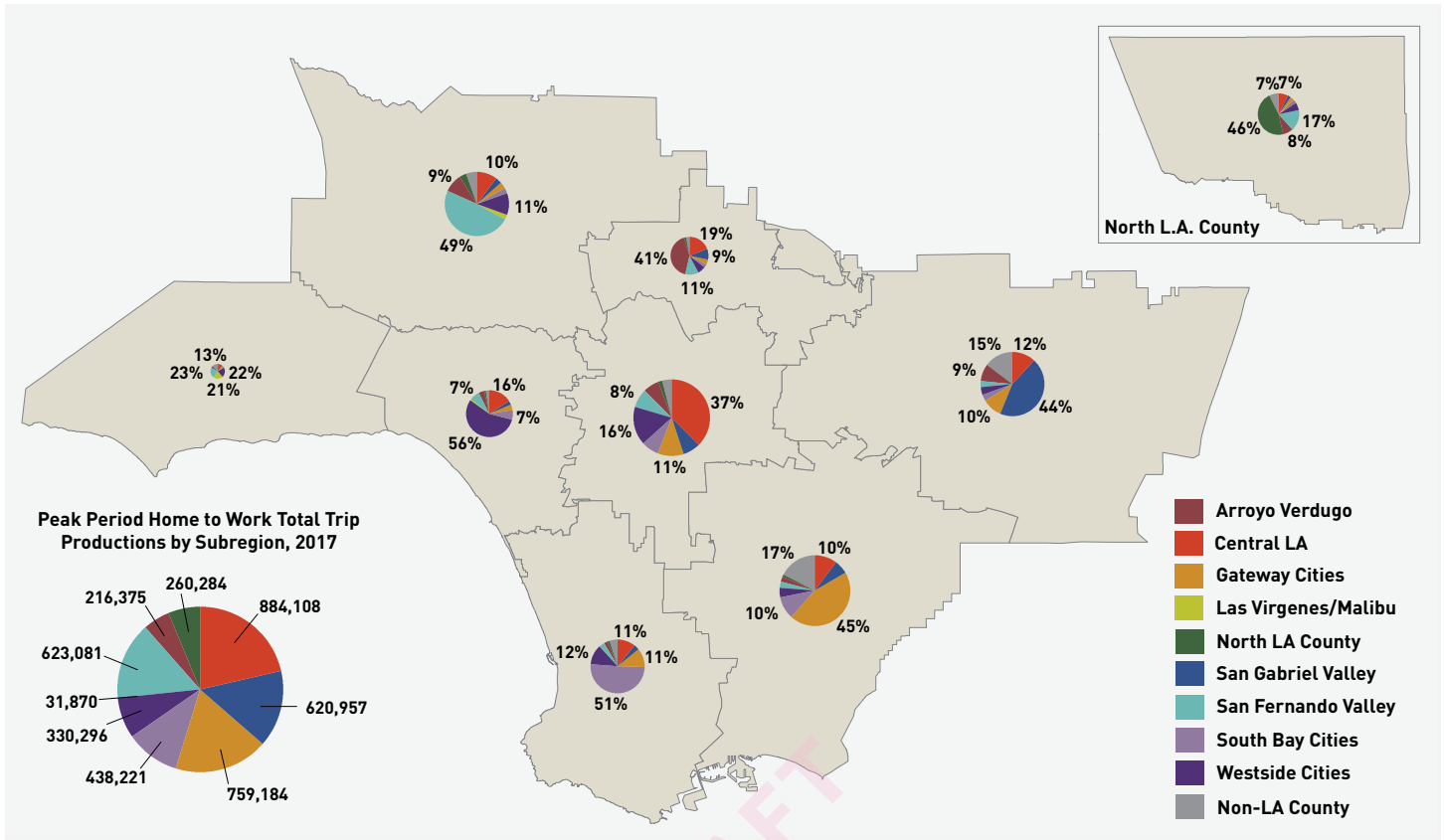


Figure 34

PEAK PERIOD HOME-TO-WORK TRIP PRODUCTIONS BY SUBREGION, 2047

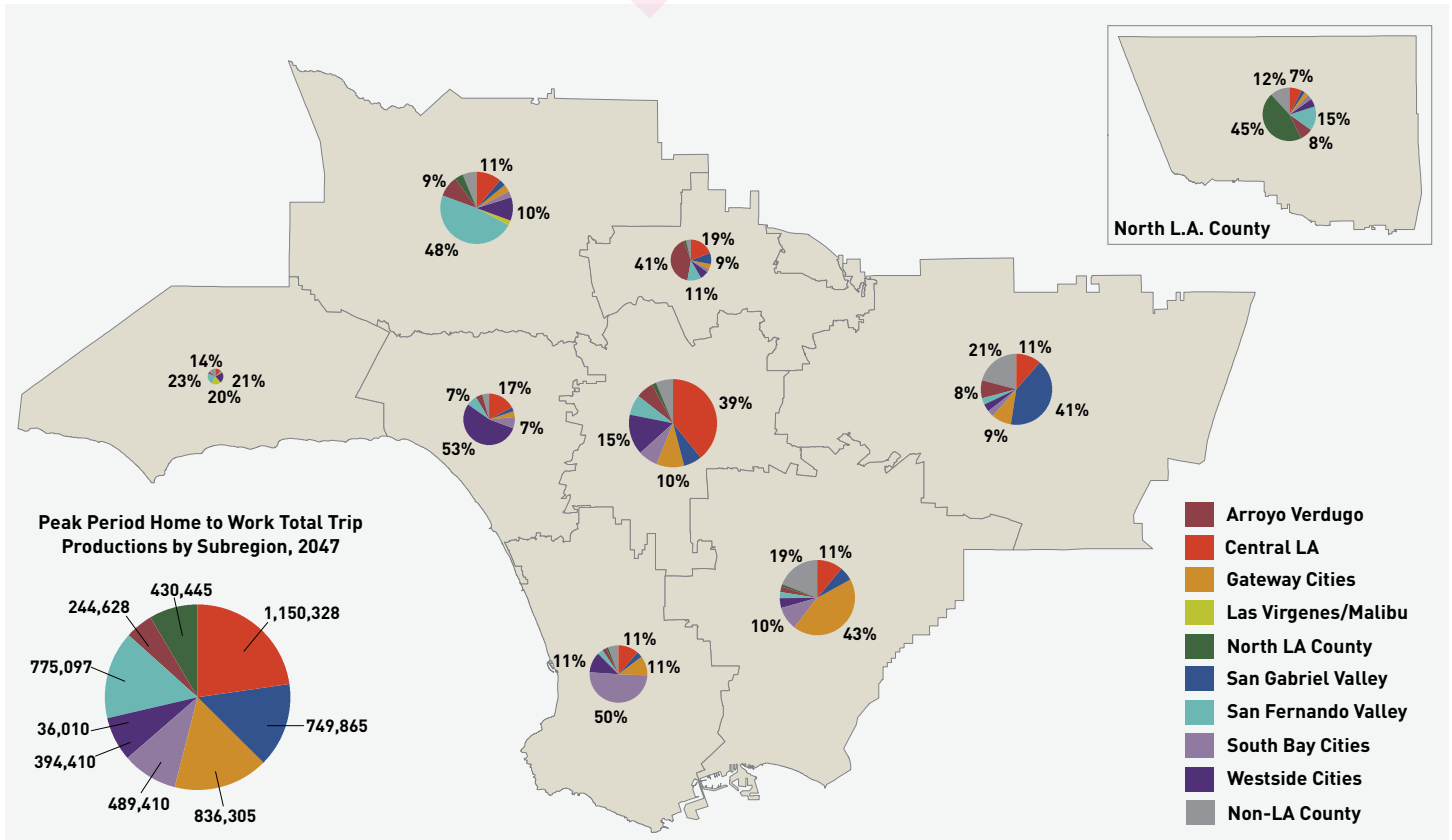


Figure 35 summarizes the daily peak period home-based work trip attractions within each subregion in year 2017. The Central Los Angeles subregion attracts the largest number of home-based work trips in the County (762,300), followed by the Gateway Cities subregion at 717,507 and San Gabriel Valley subregion at 567,600. Within Central Los Angeles, 10 percent of trips originate in the Gateway Cities subregion and 9 percent from the San Gabriel Valley subregion.

Figure 36 illustrates the daily peak period home-based work trip attractions within each subregion in year 2047. The Central Los Angeles subregion is expected to attract the largest number of daily peak period home-based work trips in the County at 977,400 trips, followed by the Gateway Cities subregion at 784,800 and the San Gabriel Valley subregion at 636,200. For the Central Los Angeles subregion, the second highest interaction occurs with trips expected to originate in the San Gabriel Valley and Gateway Cities subregions, both at 9 percent.

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Figure 35

PEAK PERIOD HOME-TO-WORK TRIP ATTRactions BY SUBREGION, 2017

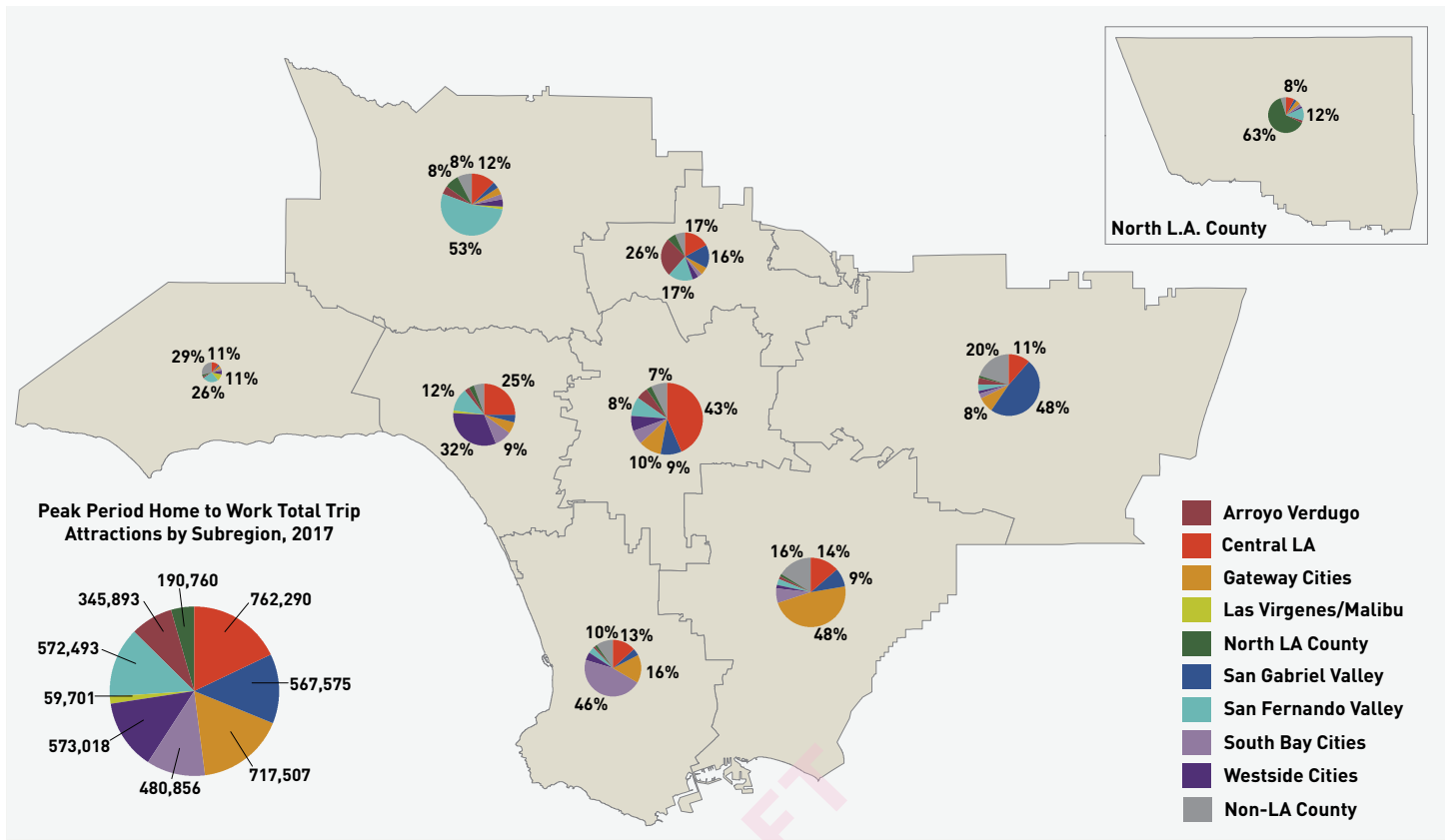
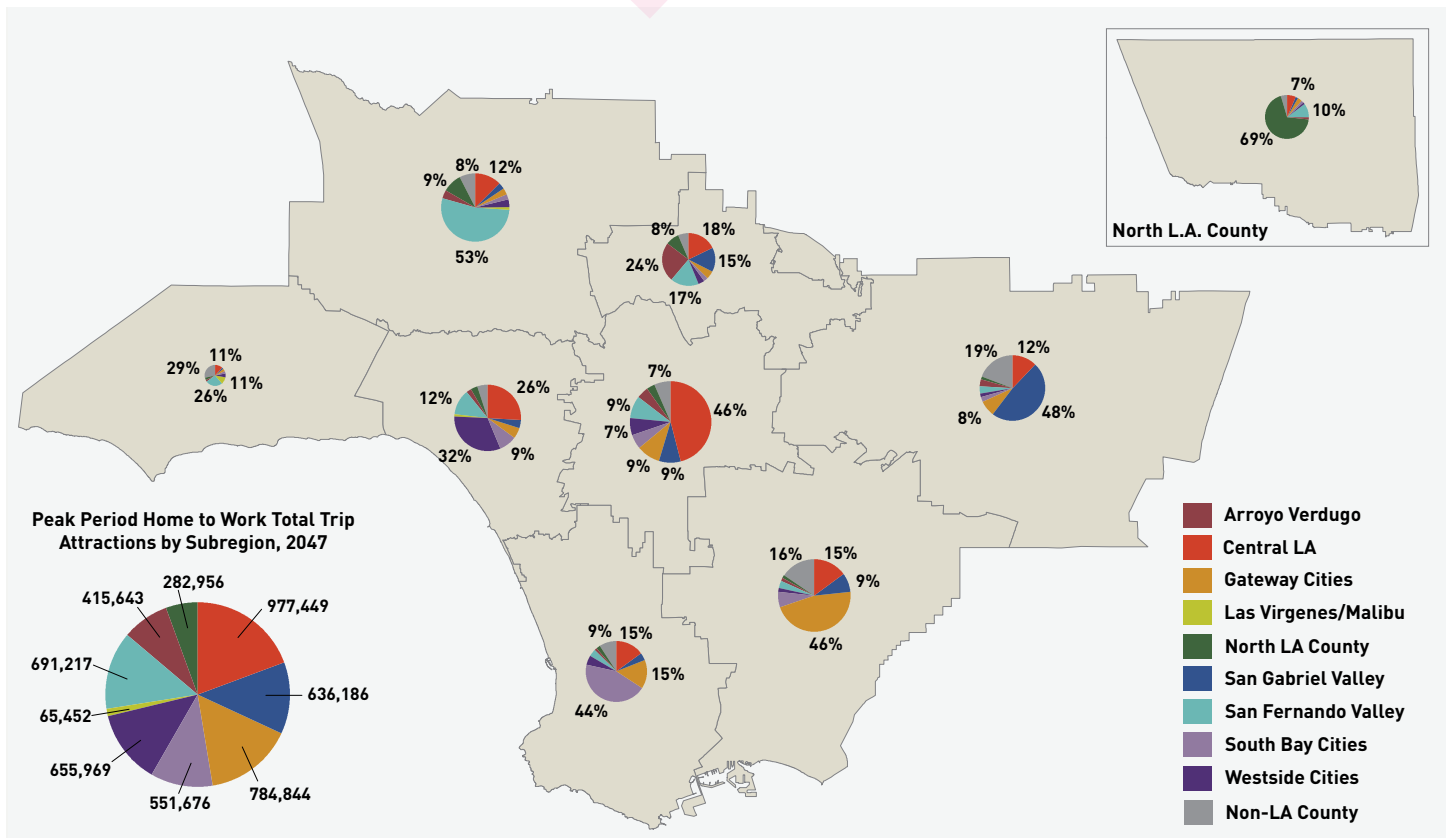


Figure 36

PEAK PERIOD HOME-TO-WORK TRIP ATTRactions BY SUBREGION, 2047



All Purposes Travel Patterns in Years 2017 & 2047

Figure 37 illustrates the total daily trip productions within each subregion for year 2017. The Central Los Angeles subregion produces the highest number of total daily trips at 6.9 million, followed by the Gateway Cities subregion at 6.6 million. The largest interaction in each subregion occurs intra-subregion.

Within the Central Los Angeles subregion, 12 percent of the trips are destined to the Westside Cities subregion. Within the San Gabriel Valley subregion, 11 percent of the trips are destined outside LA County.

Figure 38 shows the total daily trip production patterns for 2047 in each subregion of LA County. The Central Los Angeles subregion is expected to produce the largest number of total daily trips, 8.2 million. The Gateway Cities subregion is expected to produce the second largest number of daily trips at 7.1 million. For the San Gabriel Valley, the second highest interaction occurs with trips destined outside LA County at 13 percent, followed by trips destined to the Central Los Angeles subregion at eight percent.

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Figure 37

DAILY TRIP PRODUCTIONS BY SUBREGION, 2017

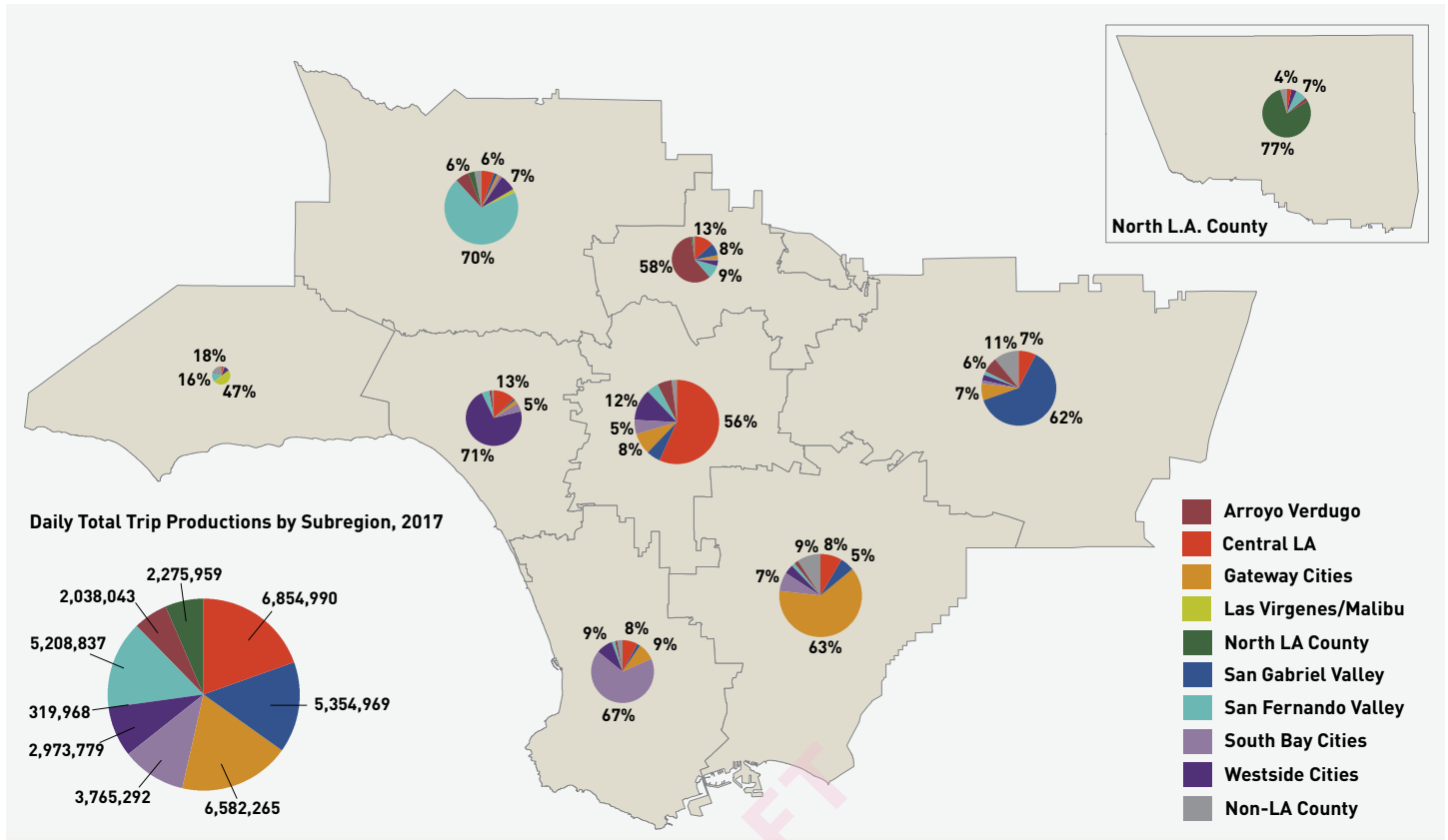


Figure 38

DAILY TRIP PRODUCTIONS BY SUBREGION, 2047

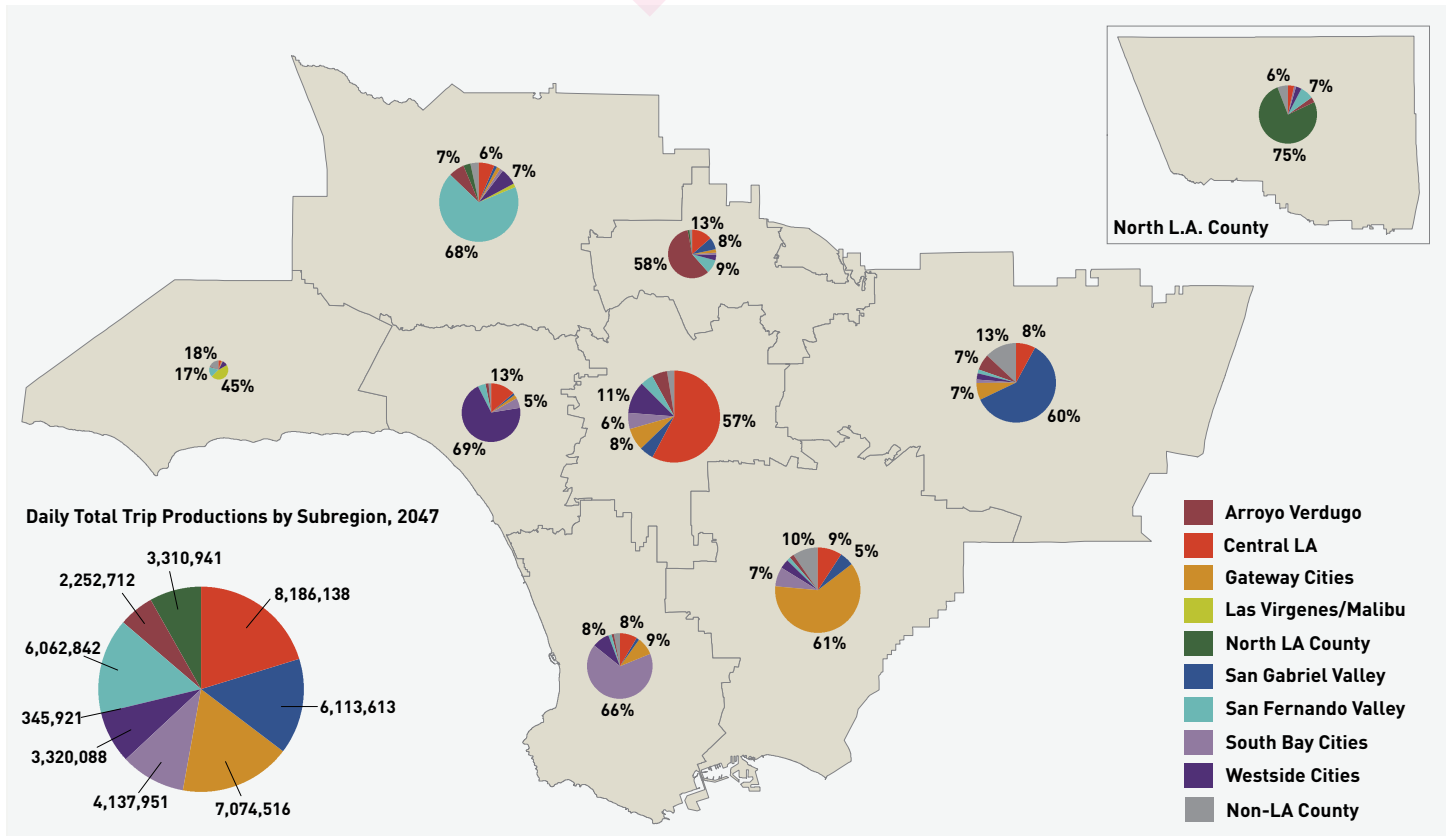


Figure 39 illustrates the total daily trip attractions within each subregion for year 2017. The Central Los Angeles subregion attracts the highest number of total daily trips, at 6.3 million, followed closely by the Gateway Cities subregion at 6.1 million. Within the Central Los Angeles subregion, the largest number of trips originates in the Gateway Cities subregion (nine percent), followed by the San Gabriel Valley subregion at six percent. Within the Gateway Cities subregion, the largest number of trips originates outside LA County (nine percent) and from Central Los Angeles (nine percent).

Figure 40 illustrates the total daily trips attracted by subregion expected for year 2047. The Central Los Angeles, Gateway Cities, and San Gabriel Valley subregions each expected to attract 7.6, 6.6, and 5.5 million trips, respectively. Within the Central Los Angeles subregion, eight percent of trips are destined to go to the Gateway Cities subregion.

Mode Choice

The mode choice process determines the share of person trips taking various modes of transportation. The modes in the Metro Travel Demand Model are automobile and transit. The submodes under automobile include single-occupancy and high-occupancy vehicles (two-person carpools and three persons or more carpools) as well as toll vs. non-toll while the submodes under transit are bus (including local bus, rapid bus, express bus, and transitway bus) and rail (including urban rail and commuter rail).

The mode choice model, in nested logit functional form, is specified separately for peak and off-peak periods. For each period, we include four trip purposes: home-work, home-university, home-other, and non-home-based.

Traffic Assignment

Traffic assignment is the process of loading vehicle trips onto a highway network and transit trips onto a transit network. This process produces traffic volumes and the resulting congested speeds on each road segment represented in the highway network as well as passenger volumes on the transit network.

Metro uses a four time-period equilibrium highway assignment process. Separate vehicle trip tables are generated for the AM peak period, midday period, PM peak period, and night period. These trip tables are assigned to the appropriate highway network using equilibrium assignment procedures. The assignment results were reviewed for reasonableness and minor adjustments were made when required.

Figure 39

DAILY TRIP ATTRactions BY SUBREGION, 2017

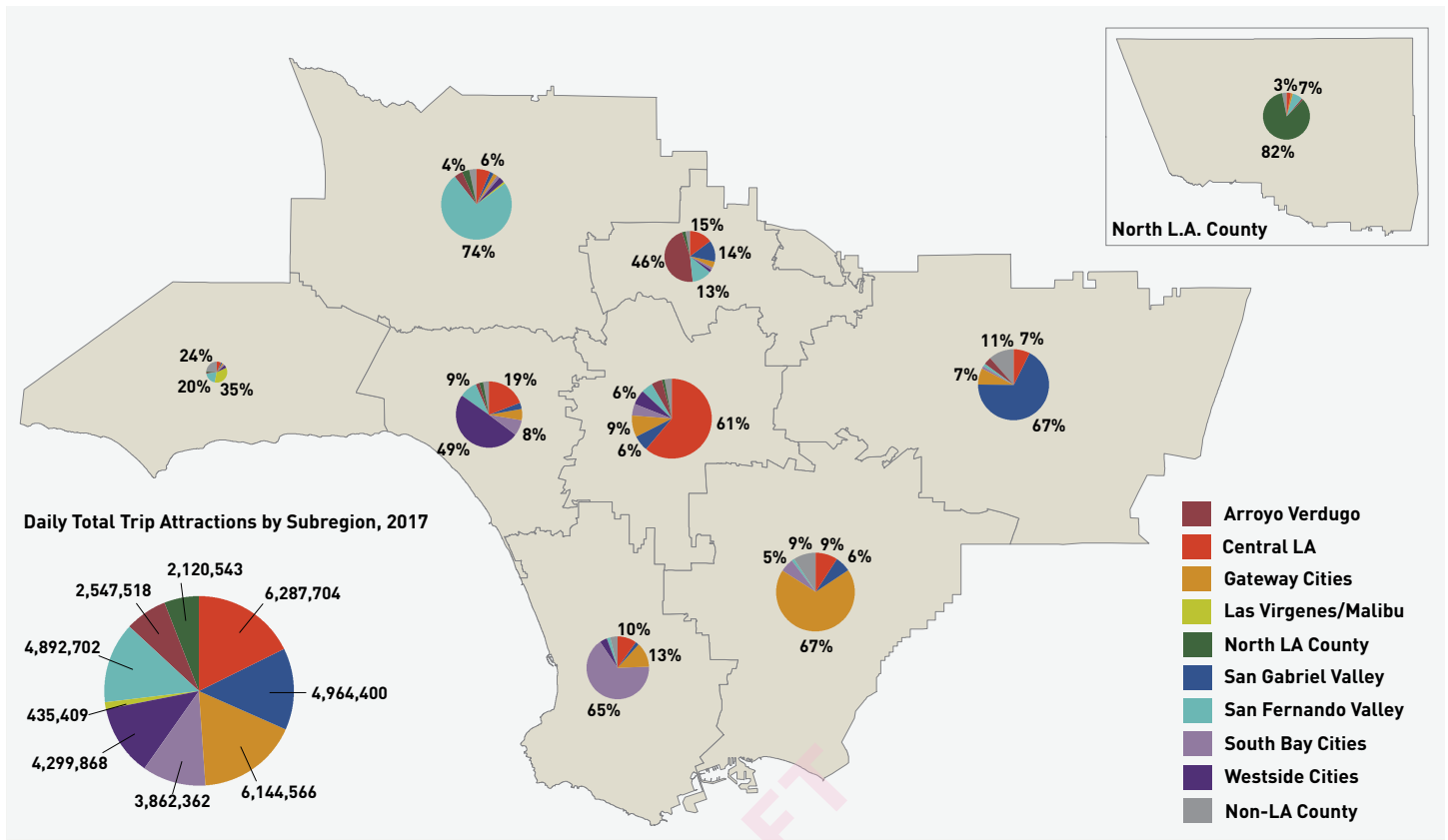
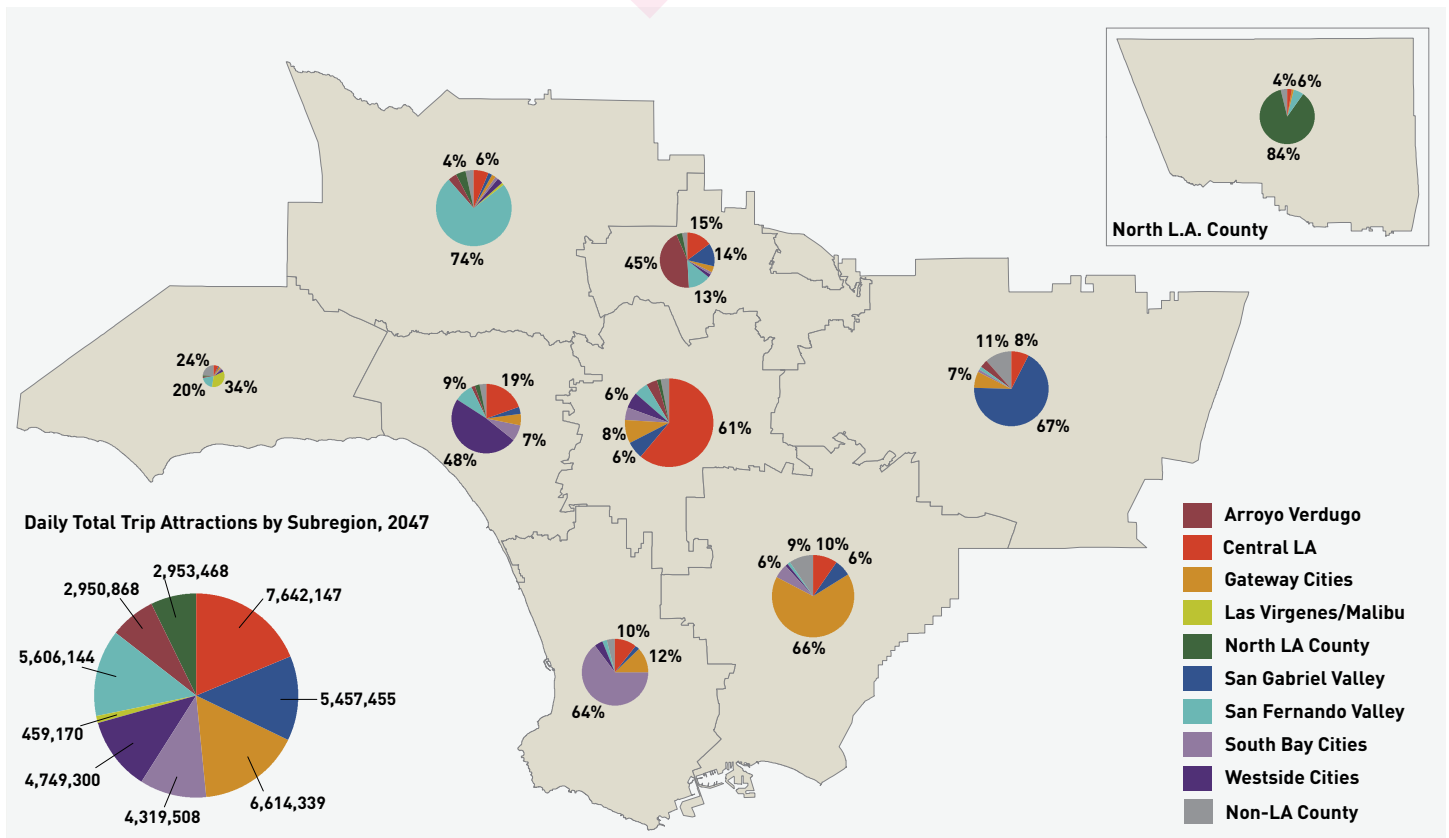


Figure 40

DAILY TRIP ATTRactions BY SUBREGION, 2047



Scenario and Hybrid Testing

Several scenarios were designed for testing that aligned with Metro's Vision 2028 Strategic Plan goals. The insights learned from these model runs were instrumental for the development and composition of the recommended 2020 Plan. This section describes the definitions and results for the Scenario Testing that were modeled for Metro's 2020 LRTP. In addition, it describes the assumptions and procedures used to set up the scenarios. The section also presents the hybrid scenario, which is the recommended 2020 LRTP scenario, that combined various transportation improvements and policy components that had been previously tested.

The underlying transportation network used in the LRTP scenario modeling contains the same major transportation capital projects as the Southern California Association of Governments' 2020 RTP/SCS update. As part of the 2047 Baseline highway network, ExpressLanes are included on the following freeways – I-10 (Downtown Los Angeles to El Monte), I-110 (South Los Angeles to Carson), I-105 (Hawthorne to Norwalk), I-405 (Sherman Oaks to Westwood) and I-710 (Commerce to Long Beach). The first two ExpressLanes exist in the present-day transportation network, and the latter three are assumed to be completed and part of the network by 2047. This network was used as the foundation for development of these listed scenarios:

1. ExpressLanes Scenario
2. High Frequency Transit Scenario
3. Innovative Transportation Scenario
4. Urban Infill Scenario
5. Active Transportation Scenario
6. Cordon Pricing Scenario
7. VMT Pricing Scenario
8. 2020 LRTP (Hybrid-1) Scenario

There are approximately 40.8 million daily trips in LA County, which account for about half of the SCAG region's trips. The total number of daily trips for the region (and thus the county) are consistent throughout all scenarios.

ExpressLanes Scenario

The ExpressLanes Scenario was created to model Metro's Vision 2028 goal of increasing the options to avoid congestion on freeway corridors by paying tolls. To create the highway network for this scenario, all the high occupancy vehicle (HOV) lanes in LA County were converted into Express/high occupancy toll (HOT) lanes. This will serve two purposes:

1. The previous HOV users can still use the HOT lanes for free, and
2. This will allow additional users to use the lanes by paying toll.

In the ExpressLanes Scenario, these ExpressLanes were kept the same as the Baseline Scenario but the HOV lanes in LA County were converted into ExpressLanes. In addition, the number of lanes were increased to two in each direction and the capacity of the links were changed accordingly in both the peak and off-peak networks.

Under this scenario, countywide auto trips increase by approximately 54,000 trips (0.2% of the daily total). Most of these trips shift from transit while some shift from non-motorized trips. Among the auto trips, drive alone increases by about 1 percent while the shared ride 2 and shared ride 3 decrease by 1.7 percent and 0.6 percent respectively. The conversion of the HOV lanes to HOT lanes provides the drive alone mode an opportunity to use the HOT facility by paying toll, and thus increases the percentage of the drive alone trips in the county.

The effect of this scenario on the regional VMT and VHT is that with the increase in drive alone trips there is an increase of approximately 2.4 million vehicle miles and 144,000 vehicle hours in comparison to the Baseline.

High Frequency Transit Scenario

The high-frequency transit scenario was created to model Metro's Vision 2028 goal of providing high-quality mobility options that enable people to spend less time traveling. The adjustments that were made for this scenario are:

1. Headways for the top 40 bus routes by ridership (which serve approximately 66 percent of Metro's bus riders) were capped to 15 minutes for each line, in each direction;
2. Model parameters for roadway segments (links) in the model network that the top 40 bus routes travel was adjusted to increase bus speed on those links by 30 percent.

The proposed transit operational improvements for links on the road networks include, but are not limited to, transit-only lanes or transit signal priority. As these would improve the operational efficiency of all buses traversing the improved links, bus routes outside the top 40 were also assumed to have a 30 percent increase in speed when travelling on the improved links.

Innovative Transportation Scenario

The innovative scenario was created to model a future planning scenario where innovative and shared mobility options are included as travel modes. The innovations in transportation that are integrated into this scenario include autonomous vehicles, electric scooters, and transportation network companies (TNCs). In addition, an alternative parking option was enabled for autonomous vehicles. Under this scenario autonomous vehicles could be parked at their destination location, returned to their origin, or sent to an external lot. It is expected that under this scenario, automobile usage will increase, due to the inclusion of autonomous vehicles and TNCs. It is also expected that most of the e-scooter ridership will come from former walk or bike trips.

Urban Infill Scenario

The Urban Infill Scenario was created to model a future planning scenario where intensified land use around transit can provide increased opportunities for transit-oriented communities. The socioeconomic inputs for the horizon year 2047 were adjusted to reflect the intensified land use. The following assumptions were used for the land use changes:

- > Total population and employment growth in LA County would be the same as the 2047 Baseline Scenario.
- > Zones were designated as station zones if they were within a half mile of an urban rail station.
- > All population growth from 2017 to 2047 was reallocated to station zones, and no population growth was allocated to non-station zones.
- > 15 percent of LA County's employment growth was reallocated to station zones. For non-station zones within LA County, employment growth was factored to keep the total employment growth in LA County the same as the 2047 Baseline Scenario.

It is expected that under this scenario, transit ridership will increase, primarily due to the increase in the number of people who live within a half mile radius of an urban rail station.

Active Transportation Scenario

The Active Transportation Scenario was created to model a future planning scenario where the bicycle and transportation infrastructure within LA County was improved; providing a better environment for non-motorized travel and improve the modes' connectivity to transit. The transit skims and highway networks were modified using the following assumptions:

1. The model was modified to include an incentive for bicyclists, which was implemented as a modal constant.
2. In addition, as part of the Vision Zero goals, free-flow speed on arterials for autos on the transportation network was capped at 25 miles per hour.
3. Within LA County, to improve connectivity between modes, walk access and egress connections to transit were sped up by 20 percent.

It is expected that under this scenario that the bike share within LA County will be approximately 10 percent, and walk share will also increase.

Cordon Pricing Scenario

The Cordon Pricing Scenario was created to model Metro's Vision 2028 goal of reducing the congestion by pricing the Urban Core, Central Business District (CBD) and Urban Business District (UBD) areas in LA County. To create the highway network for this scenario, special fees (referred to as decongestion fees) were coded on the centroid connectors in Urban Core, CBD, and UBD areas of LA County, and on the highway links and ramps entering the Urban Core and CBD areas to simulate cordon pricing.

With this pricing policy, trips going from outside to a UBD, CBD and Urban Core zone will be charged \$3/trip, \$6/trip and \$9/trip respectively. Further, the use of the freeway exit ramps to a CBD and Urban Core zone will increase the fees by an additional \$3/trip and \$6/trip respectively. Because the focus of the cordon pricing fees is on the Urban Core, CBD and UBD areas, it is important to summarize and analyze the model results by area type for this scenario to accurately gauge the impact of this policy.

VMT Pricing Scenario

The Vehicle Mile Traveled (VMT) Pricing scenario was created to model Metro's Vision 2028 goal of providing high-quality mobility options that enable people to spend less time traveling. The scenario is designed to model the following Metro Vision 2028 initiative: Test and implement pricing strategies to reduce traffic congestion. The model captures the cost of driving in the parameter OPCOST, which includes fuel and other operating costs such as maintenance. The mode choice model calculates the cost of driving by the equation: Drive Cost = OPCOST * Distance where distance is the drive distance between trip origin and destination. The VMT fee alternatives tested included:

1. Test 1: \$0.10 fee per mile.
2. Test 2: \$0.15 fee per mile.
3. Test 3: \$0.20 fee per mile.

2020 LRTP (Hybrid-1) Scenario

The 2020 LRTP scenario combines various transportation improvements and policy components that had been previously tested, including high frequency transit, an increased network of high occupancy toll (HOT) lanes (which are also referred to as Express Lanes), first and last mile improvements, and a VMT fee of 20 cents per mile on top of the current operating costs. Some of the component scenarios were modified for their application in the Hybrid Scenario. In addition, for the Hybrid Scenario, a free fare and transfer policy on all LA County bus, urban rail and BRT lines was implemented. This policy excludes Metrolink riders, who still pay regular fare on commuter rail, but includes regional local bus operators (e.g. Santa Monica Big Blue Bus, Foothill Transit, etc.).

The scenario is designed to model the following Metro Vision 2028 desired outcomes:

1. To provide high frequency, fast transit service; where high quality options are at most a 10-minute walk or roll from home, the maximum wait for a trip is 15 minutes, and buses operate at 30 percent faster speeds;
2. To provide options to bypass congestion via freeway corridor pricing;
3. To improve first and last mile connectivity.

The following adjustments were made to the transit networks for this scenario:

1. Headways for the top 40 bus routes by ridership (which serve approximately 66 percent of Metro's bus riders) were capped to 10 minutes for each line, in each direction;
2. Model parameters for roadway segments (links) in the model network utilized by the top 40 bus routes were adjusted to increase bus speed on those links by 30 percent;
3. Fares and transfer fees for all LA County bus and urban rail lines were set to zero; and,
4. Travel times on walk access, egress, and transfer links (modes 1, 2, and 3 in the transit network) were reduced by 20 percent, in order to represent improvements in first and last mile travel time.

Mode Choice Results

Under this scenario, countywide auto trips decrease by approximately 807,000 trips (2.4% of the daily total). Among the auto trips, drive alone trips decrease by about 6.2 percent while the shared ride 2 trips decrease by 6.8 percent. The largest majority of these trips shift to transit while some shift to 3 and 4+ carpool and non-motorized trips. This is mainly due to the changes made in the transit and highway networks in the Hybrid Scenario. For example, the frequent and fast transit services in the Hybrid Scenario shifted some riders from auto to transit mode. In addition, the conversion of some of the HOV2+ lanes to HOT3+ lanes in the Hybrid Scenario also encouraged some of the shared ride 2 riders to shift from auto to other modes in the Hybrid Scenario. The increased operating cost in the Hybrid Scenario also shifted some of the trips to non-motorized mode.

MODE	BASELINE	HYBRID-1	DIFFERENCE	% DIFFERENCE
Bus subtotal	791,647	1,098,010	306,363	38.7%
Transit subtotal	1,600,068	2,332,514	732,446	45.8%
Auto subtotal	33,871,165	33,064,101	(807,064)	-2.4%
Non-Motorized Subtotal	5,330,526	5,405,193	74,667	1.4%
Total daily	40,801,759	40,801,807	48	0.0%

The boardings on all the urban rail lines increase in the Hybrid Scenario. Among these, the largest absolute increases are on the North-South Line, Purple Line and Green Line.

Transit Results

The increased transit service provided in the Hybrid Scenario would require a corresponding increase in the bus fleet. The Baseline Scenario network requires 1,909 Metro bus vehicles in operation during the peak period, and the Hybrid Scenario requires 2,264 buses. This is an increase of 355 buses (18.6%) over the original fleet size. Revenue vehicle miles increase in the Hybrid Scenario by 26,922 miles (11.0%). Revenue vehicle hours will be impacted by both the increase in service and change in speed, but the speed related change cannot be estimated with the modeling and analysis tools available. However, the increase in revenue vehicle hours due to the service increase by a maximum of 2,349 hours (11.6%) is due solely to the increase in service.

Figure 41

Systemwide Daily Boarding Comparison by Mode

TRANSIT SERVICES	BASELINE	HYBRID-1	DIFFERENCE	% DIFFERENCE
Local Bus Total Boardings	1,475,591	2,670,725	1,195,134	81%
Express Bus Total Boardings	44,503	67,0182	2,515	51%
Transitway	42,862	79,478	36,616	85%
Rapid Bus (Metro)	189,563	224,641	35,078	19%
BRT (Metro)	179,296	283,661	104,365	58%
Urban Rail (Metro)	1,170,978	1,744,883	573,905	49%
Commuter Rail	111,816	143,037	31,221	28%

The average trip length increases for all transit modes in the Hybrid Scenario. The provision of frequent and fast transit services with zero fare for all LA County transit modes (except Metrolink) give riders an opportunity to use these services for longer trips. Thus, the average transit trip length increases for all the modes (except BRT) in the Hybrid Scenario.

Highway Results

The effect of this scenario on the regional VMT and VHT is as expected. With the decrease in drive alone and shared ride trips, there is a decrease of approximately 21 million vehicle miles (7%) and 1.6 million vehicle hours (14%) in comparison to the Baseline.

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Performance Measures

This chapter summarizes transportation system performance in LA County with the improvements recommended in this Long Range Transportation Plan (LRTP). The performance is measured across various performance measures associated with transportation system goals and objectives. Performance measures serve as a basis for comparing alternative improvement strategies and for tracking performance over time. System performance is evaluated for three scenarios that cover the 30-year horizon of the LRTP: Existing, Trend, Measure M, and 2020 LRTP scenarios. These scenarios have the following characteristics and are described in detail in the Travel Demand Model chapter.

L RTP Systemwide Performance

- > **Existing (2017):** This scenario describes the transportation system performance in 2017. This is the current conditions scenario.
- > **Trend (2047):** Referred to as the “Trend” scenario throughout the chapter, this scenario assesses the transportation system in 2047 with future population and employment growth conditions and no improvements to the transportation network. This scenario is the basis for assessing the impacts of Measure M and 2020 L RTP scenarios.
- > **Measure M (2047):** Referred to as the “Measure M” scenario, this evaluates the transportation system in 2047 with future population and employment growth conditions as well as the major highway and transit capital improvements detailed in the L RTP. These improvements are described in the Travel Demand Model section above.
- > **2020 L RTP (2047):** Referred to as the 2020 L RTP, this scenario includes the Measure M funded capital projects along with several bold policy initiatives, including a vehicle miles traveled (VMT) fee, free transit, and faster bus speeds. This is the recommended scenario for the 2020 L RTP.

The L RTP performance framework is organized around goals, objectives, and performance measures:

- > **Goals** (“What do we want to achieve?”) drawn from the service-oriented goals of Vision 2028.
- > **Objectives** (“How should we address our goals?”) drawn from public input gathered through the outreach phase of the L RTP, as well as objectives from countywide planning efforts, statutory requirements, and Vision 2028 initiatives.

- > **Performance Measures** (“How do we track and measure success?”) drawn from Vision 2028, the US Department of Transportation’s Transportation Performance Management rulemaking, Metro’s L RTP/Measure M Performance Framework, the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy, and other Metro plans and programs.

- > This performance framework was developed in partnership with Metro’s internal departments, stakeholder input from the Policy Advisory Council (PAC), and input from the Metro Board.

The sections below highlight the systemwide performance measures and results for the four scenarios (Existing, Trend, Measure M, and 2020 L RTP). For some measures, the data and tools are insufficient to forecast future conditions. These are highlighted in the tables with “NA” for not-applicable. The sections are organized by the five goals from Vision 2028:

- > **Goal 1:** Provide high-quality mobility options that enable people to spend less time traveling
- > **Goal 2:** Deliver outstanding trip experiences for all users of the transportation system
- > **Goal 3:** Enhance communities and lives through mobility and access to opportunity
- > **Goal 4:** Transform LA County through regional collaboration and national leadership
- > **Goal 5:** Provide responsive, accountable, and trustworthy governance within Metro

Goal 1

Provide high-quality mobility options that enable people to spend less time traveling

As laid out in Vision 2028, to achieve this goal, Metro will expand transportation options, improve the quality of its transit network and assets, and take steps to manage demand on the entire network. The LRTP will help advance this goal and measure progress towards two supporting objectives:

1. Optimize the speed, reliability and performance of the transportation system
2. Provide high-quality mobility options for all

These objectives and related performance measures, highlighted in Figure 42 on the right, quantify the system-level travel times, reliability, and access to various transportation modes.

- > Countywide, average travel times for driving in the AM peak are longer than midday. In 2047, morning roadway travel times are expected to increase by roughly nine minutes, which is a 38% increase in travel time. Compared to the Trend, the Measure M scenario reduces the average AM trip by 2% and midday by 1%. Similarly, average transit travel times are expected to get longer between 2017 and 2047; however, the Measure M scenario is expected to improve transit travel times by 8% compared to the Trend. With the addition of the bold policies recommended in the 2020 LRTP, the average AM travel time for auto and transit are expected to improve by 19% and 16%, respectively, compared to the Trend.
- > Roadway travel time reliability measures how much longer a trip in bad traffic (the 95th percentile of travel times) is relative to the average trip at that time. For highways, both in the morning and midday this value is 24%. On major arterials (Countywide Strategic Arterial Network and Truck Network), the buffer time is 14% in the morning and 12% during midday. Transit reliability is measured by on-time performance. Metro's In-Service On-Time Performance, for all Metro buses, was close to 74% in fiscal year 2018. For Metro rail it was over 98% in 2018.

- > Currently, 8% of the households and 16% of jobs are within a 10 minute walk of high-quality transit (defined as fixed guideway stations). This number is expected to increase to 21% of households and 36% in the Measure M scenario. The Measure M scenario is expected to increase the percent of jobs within a 10 minute roll of high-quality transit from 48% to 62% compared to the Trend.
- > Transit travel time competitiveness compares the transit time to what it would take to drive a car between key destinations. Of twenty key origin-destination pairs, the average travel time ratio is roughly 2.5, meaning it takes two and a half times longer to take transit versus drive between the origin and destination.
- > Person hours of travel (PHT) in high occupant vehicle (HOV), where there is more than one person in the car, is expected to increase between the 2017 and the Trend scenario. Between the Trend and Measure M scenario, HOV PHT is expected to decrease, which is consistent with a reduction in vehicle hours of travel and vehicle hours of delay. Transit passenger hours traveled are expected to increase by 11% with the Measure M scenario and 68% for the 2020 LRTP scenario compared to the Trend.
- > Another measure of transportation choice is the mode share of active transportation. While overall bicycle and walking trips will increase, with the Measure M scenario the mode share for active transportation is not expected to increase. The active transportation mode share is currently 13.1% for all trips in 2017 and is expected to remain relatively constant.

Figure 42

Goal 1 Systemwide Performance Results

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
Optimize the speed, reliability and performance of the transportation system	1.a	Travel time by mode	AM travel time (in minutes) by auto	23.5	32.4	31.7	26.4
			Midday travel time (in minutes) by auto	17.0	20.1	19.9	NA
			AM travel time (in minutes) by transit	58.0	62.5	57.7	52.2
			Midday peak travel time (in minutes) by transit	64.3	64.6	61.3	NA
	1.b	Travel time reliability by mode	In-Service On-time Performance for Metro bus and rail (% of arrivals > 5 min later and departures > 1 before than scheduled)	Bus: 73.8% Rail: 98.5%	NA	NA	NA
			% variation in AM and Midday travel time on freeways	AM and Midday: 24%	NA	NA	NA
			% variation in AM and Midday travel time on CSAN	AM: 14% Midday: 12%	NA	NA	NA
Provide high-quality mobility options for all	2.a	Percent of households and jobs within 10-minute walk or roll of high-quality transit	Percent of households 10-minute walk or roll high-quality mobility options	Walk: 8% Roll: 38%	Walk: 9% Roll: 40%	Walk: 21% Roll: 55%	Walk: 21% Roll: 55%
			Percent of jobs within 10-minute walk or roll of high-quality mobility options	Walk: 16% Roll: 42%	Walk: 24% Roll: 48%	Walk: 36% Roll: 62%	Walk: 36% Roll: 62%
	2.b	Transit competitiveness (vs. driving) in key travel markets	Ratio of transit travel time to auto travel time between zonal pairs	Average Ratio: 2.49	NA	NA	NA
	2.c	Person travel hours in non-SOV modes	Daily person travel hours for HOV	9,382,646	14,018,530	12,933,380	NA
			Daily person travel hours for transit	522,661	815,531	908,143	1,367,320
	2.d	Active transportation mode share	% of trips made by bicycle or walking	13.1%	13.2%	13.1%	13.2%

Goal 2

Deliver outstanding trip experiences for all users of the transportation system

To achieve this goal, Metro seeks to improve the travel experiences of all users of the system. This means building and maintaining a world-class system that is attractive, affordable, efficient, safe, convenient, and user-friendly. The LRTP will help advance this goal and measure progress towards two supporting objectives:

1. Improve transportation system safety and security
2. Maintain a high level of customer satisfaction

These objectives and related measures, highlighted in Figure 43 below, quantify system-level safety and customer satisfaction. This includes tracking annual collisions, protecting vulnerable users through protected bikeways and sidewalks, and tracking customer satisfaction through regular surveying.

- > Figure 43 details the annual number, averaged over the past three years, of severe and fatal collisions involving autos, trucks, bicycles, and pedestrians. Auto-only collisions represent over 80% of all injury collisions; however, collisions involving pedestrians made up only 9% of all injury collisions, but 37% of the collisions resulting in fatalities. There is an annual average of 268 fatal collisions involving pedestrians, 39 involving bicyclists, and 50 involving trucks.
- > Protected bikeways include Class 1 paths and Class IV cycle tracks. Currently, there are only 60 miles of projected bikeways within 1/2 mile of fixed guideway transit stations. In the Trend scenario, with no new fixed guideway stations, the miles of bikeways would stay the same (assuming no increase in bike paths). In the Measure M scenario, the number would increase 73 miles. If local jurisdictions implement all bikeways planned in their bicycle plans, the Measure M scenario metric would increase significantly to 244 miles within 1/2 mile of fixed guideway transit stations. Currently, there is no countywide sidewalk inventory.

- > There were 1,632 Part I and 1,434 Part II crimes on the Metro system in FY19, where Part I crimes refer to more serious violent and property crimes. Compared to FY18, total crimes were down by roughly 1%, with a slight increase in the less serious Part II crimes (+2%) and a larger decrease in Part I crimes (-3%).
- > Generally speaking, Metro's customers have a high degree of satisfaction with Metro's bus, rail, and ExpressLane services. Close to 90% of customers are satisfied with Metro bus and rail service, and over 80% of ExpressLanes users are likely to support additional ExpressLanes projects countywide.

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Figure 43

Goal 2 Systemwide Performance Results

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
Improve transportation system safety and security	3.a	Collisions by mode by severity	Number of fatal and severe collisions involving autos	Severe: 1,974 Fatal: 362	NA	NA	NA
			Number of fatal and severe collisions involving trucks	Severe: 127 Fatal: 50	NA	NA	NA
			Number of fatal and severe collisions involving pedestrians	Severe: 761 Fatal: 268	NA	NA	NA
			Number of fatal and severe collisions involving bicycles	Severe: 249 Fatal: 39	NA	NA	NA
	3.b	Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit	Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit	Bikeways: 60 miles Sidewalks: Unknown	Bikeways: 60 miles Sidewalks: Unknown	Bikeways: 77 miles Sidewalks: Unknown	Bikeways: 77 miles Sidewalks: Unknown
	3.c	Part I & II crimes reported on Metro transit system	Part I & II crimes reported on Metro transit system (2019)	Part I: 1,632 Part II: 1,434	NA	NA	
	Maintain a high level of customer satisfaction	4.a	Customer satisfaction with Metro bus, rail, and Express Lanes systems	Are customers satisfied with Metro bus service	Strongly Agree: 45% Agree: 46% Disagree: 6% Strongly Disagree: 3%	NA	NA
Are customers satisfied with Metro rail service				Strongly Agree: 33% Agree: 56% Disagree: 9% Strongly Disagree: 2%	NA	NA	
Likelihood to support additional ExpressLane corridors				Very Likely: 54% Somewhat likely: 28% Somewhat unlikely: 8% Very Unlikely: 10%	NA	NA	

Goal 3

Enhance communities and lives through mobility and access to opportunity

Metro wants to improve individuals and families' access to jobs, essential services, education, and other social, cultural, and recreational opportunities. This means working to be responsive to the needs of diverse communities and seeking equitable outcomes from transportation investments. The LRTP will help advance this goal and measure progress towards five supporting objectives:

1. Promote access to opportunity in Equity Focus Communities
2. Reduce household costs spent on transportation and housing
3. Promote economic vitality
4. Improve environmental quality and resilience
5. Enhance public health and quality of life

These objectives and related measures, highlighted in Figure 44, quantify system-level performance in terms of equity, access to opportunity, economic benefits, affordability, environment, and public health. The first objective evaluates how systemwide performance in Equity Focus Communities (EFCs), defined geographic areas determined in need of access to opportunity, compares relative to the countywide averages. The EFCs comprise roughly 5% of the land area of LA County and contain roughly 30% of the population. These measures appear first in the table, but have been listed at the end of this introductory summary in order to highlight the comparisons to other countywide measures listed first.

- > There are just over 35,000 Federal, State, and County-Administered affordable housing units within 1/2 mile of high quality transit, defined as fixed guideway transit stations, which is 32% of all the units in LA County.
- > Residents of LA County spend roughly 33% of their income on combined housing and transportation costs.
- > In 2017, an estimated 20% of the county's jobs are located within 1/2 mile of fixed guideway transit stations. In the Trend scenario, the percentage increases to 28% without any new transit stations, suggesting that job growth will be somewhat concentrated around station areas. In the Measure M scenario, 36% of the jobs are expected to be within 1/2 mile of fixed guideway transit.
- > Regional growth can be measured as the increase in gross regional product attributable to transportation investments, increased economic activity, and benefits due to transportation system improvements. The increase in gross regional product is estimated to be \$196 billion over the 30 year horizon. The benefits can also be measured in new jobs created. It is estimated that the Measure M scenario will create an additional 1.84 million job years (a year of full employment) compared to the Trend.
- > Greenhouse gas emissions are expected to decrease between 2017 and 2047 due to increases in fuel efficiency and electrification. Between 2017 and 2047, the tons of CO₂ equivalent is projected to decrease 11%. The Measure M scenario is expected to further decrease these emissions, by 5%, relative to the Trend.
- > Air quality pollutants, specifically particulate matter (PM_{2.5} and PM₁₀), sulfur oxides (SO_x), nitrogen oxides (NO_x), and carbon monoxide, will also decrease significantly between 2017 and 2047 due to a cleaner fleet of vehicles on the roadways. Comparing the Trend with the Measure M scenario, the Plan scenario is expected to bring about modest decreases in CO, NO_x and SO_x, around 3-4% decreases, and no significant difference in particulate matter.

- > There are 659 identified activity centers (this includes regional parks, colleges, regional shopping centers, cultural centers, among other destinations). In 2017, 15% are accessible within a 10 minute walk and 44% within a 10 minute roll of high quality transit. In 2047, these percentages are expected increase to 24% and 60%, respectively.
- > As noted in Goal 1, the active transportation mode share, as modeled in Metro's travel demand model, is 12.4% for all trips. This is less than the 13.8% estimated from the recent National Household Travel Survey's estimate for LA County.
- > In 2017 there were only 11 miles of protected bikeways in EFCs within 1/2 mile of fixed guideway transit. In the Measure M scenario, the protected bikeway mileage is expected to increase to 18 miles. This represents a 40% increase in mileage, compared to a 22% increase for the county as a whole (measure 3.b). If agencies countywide implemented all the bikeways in their respective bike plans, the mileage would increase to 98 miles.
- > There are over 25,000 Federal, State, and County-Administered affordable housing units within 1/2 mile of high quality transit. This represents 23% of all the units in the county and 72% of the units within 1/2 mile of fixed guideway transit (measure 6a).

Equity Focus Community Measures

- > Average travel times for auto trips originating in EFCs are slightly less than the county average in each scenario. The change in travel times between the Measure M scenario and Trend scenarios, at 2% in AM and 1% midday, is the same for both EFCs and the county as a whole. Average travel times for transit in EFCs improve slightly more than the county average; in the AM period they are 9% better in the Measure M scenario compared to the Trend, compared to 6% during midday.
- > Currently, households in EFCs have better access to fixed guideway transit stations than the county average. Specifically, 20% of households in EFCs are within a 10 minute walk of high quality transit and 60% are within a 10 minute roll, compared to 8% and 38%, respectively, for LA County (measure 2.a). In the future Measure M scenario, the percent of households in EFCs within a 10 minute walk will be 41% and 80% within a 10 minute roll of fixed guideway transit stations.
- > Roughly 28% of all fatal and severe collisions in LA County occur in EFCs. However, almost 40% of severe injury and fatal collisions involving pedestrians and bicycles in LA County occur in EFCs.
- > Residents living in EFCs spend an estimated 55% of their income on housing and transportation compared to 33% countywide (measure 6.b)
- > Roughly one third of all air quality pollutants, countywide, are emitted in EFCs. Compared to the Trend, the Measure M scenario is expected to decrease CO, NOx, and SOx by 9-10%, and particulate matter by 4%. These benefits are much higher in EFCs than the countywide average changes.
- > Roughly one third of all identified activity centers are located in EFCs. Of these activity centers, 32% are with a 10 minute walk and 76% are within a 10 minute roll of fixed guideway transit stations. With the Measure M scenario, these percentages are expected to increase to 39% and 84% respectively.
- > Of the principal arterials located in EFCs, 79% of the lane miles are in poor condition and only 2% are in good condition. This is in contrast to the county average for principal arterials, with 66% in poor condition and 6% in good condition (measure 13.a).

Figure 44

Goal 3 Systemwide Performance Results

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
Promote access to opportunity in Equity Focus Communities	5.a	Travel time by mode in EFCs	AM travel time (in minutes) for trips originating in EFC by auto	22.6	30.3	29.6	NA
			Midday travel time (in minutes) for trips originating in EFC by auto	16.7	19.3	19.1	NA
			AM travel time (in minutes) for trips originating in EFC by transit	52.3	56.4	51.3	NA
			Midday peak travel time (in minutes) for trips originating in EFC by transit	58.4	58.1	54.8	NA
	5.b	Percent of EFC households within 10-minute walk or roll of high quality transit	Percent of EFC households within 10-minute walk or roll of high quality transit	Walk: 20% Roll: 66%	Walk: 22% Roll: 68%	Walk: 41% Roll: 80%	Walk: 41% Roll: 80%
	5.c	Collisions by mode and severity in EFCs	Number of fatal and severe collisions located in EFCs involving autos	Severe: 454 Fatal: 70	NA	NA	NA
			Number of fatal and severe collisions located in EFCs involving trucks	Severe: 28 Fatal: 10	NA	NA	NA
			Number of fatal and severe collisions located in EFCs involving pedestrians	Severe: 320 Fatal: 100	NA	NA	NA
			Number of fatal and severe collisions located in EFCs involving bicycles	Severe: 92 Fatal: 14	NA	NA	NA
	5.d	Miles of protected bicycle pathways and sidewalks within 1/2 mile of high quality transit in EFCs	Miles of protected bicycle pathways and sidewalks within 1/2 mile of high quality transit in EFCs	Bikeways: 11 miles Sidewalks: Unknown	Bikeways: 11 Sidewalks: Unknown	Bikeways: 18 miles Sidewalks: Unknown	

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
	5.e	Affordable housing within 1/2 mile of high quality transit in EFCs	Federal, State, and County-Administered Affordable Housing Units in EFCs within 1/2 mile of high quality transit	25,215	NA	NA	NA
	5.f	Percent of household income spent on combined transportation and housing costs in EFCs	Percent of household income spent on combined transportation and housing costs in EFCs	55%	NA	NA	NA
	5.g	Air quality pollutants in EFCs	Annual short tons of quality criteria pollutants (Particulate Matter, NOx,, SOX, CO)	PM2.5: 132 PM10: 140 SOx: 95 NOx: 7,741 CO: 42,372	PM2.5: 33 PM10: 35 SOx: 77 NOx: 3,441 CO: 17,213	PM2.5: 32 PM10: 34 SOx: 71 NOx: 3,102 CO: 15,418	NA
	5.h	Percent of activity centers in EFCs within 10-minute walk or roll of high quality transit	Percent of activity centers in EFCs within 10-minute walk or roll of high quality transit	Walk: 32% Roll: 76%	Walk: 32%Roll: 76%	Walk: 39%Roll: 84%	Walk: 39%Roll: 84%
	5.i	Percent of roads and highway bridges in good and fair condition in EFCs	Percent of principal arterial roads in good and fair condition in EFCs	Good: 2% Fair: 19% Poor: 79%	NA	NA	NA
Reduce household costs spent on transportation and housing	6.a	Affordable housing within 1/2 mile of high quality transit	Federal, State, and County-Administered Affordable Housing Units within 1/2 mile of high quality transit	35,087	NA	NA	NA
	6.b	Percent of household income spent on combined transportation and housing costs	Percent of household income spent on combined transportation and housing costs	33%	NA	NA	NA

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
Promote economic vitality	7.a	Jobs within 1/2 mile of high quality transit	Jobs within 1/2 mile of high quality transit	695,515	1,245,740	1,608,174	1,608,174
	7.b	Regional economic growth attributable to transportation investments	Regional economic growth attributable to transportation investments	NA	NA	\$196 billion	NA
	7.c	Regional jobs attributable to transportation investments	Regional jobs years attributable to transportation investments	NA	NA	1.84 million	NA
Improve environmental quality and resilience	8.a	GHG emissions	Annual million metric tons of carbon dioxide equivalent (CO ₂ e)	35.05 million	31.03 million	29.42 million	25.27 million
	8.b	Air quality pollutants	Annual short tons of quality criteria pollutants (Particulate Matter, NO _x , SO _x , CO)	PM _{2.5} : 466 PM ₁₀ : 493 SO _x : 298 NO _x : 27,236 CO: 129,227	PM _{2.5} : 127 PM ₁₀ : 135 SO _x : 252 NO _x : 12,298 CO: 53,264	PM _{2.5} : 127 PM ₁₀ : 135 SO _x : 245 NO _x : 11,786 CO: 51,153	NA
Enhance public health and quality of life	9.a	Percent of activity centers within 10-minute walk or roll of high quality transit	Percent of activity centers within 10-minute walk or roll of high quality transit	Walk: 15% Roll: 44%	Walk: 15% Roll: 44%	Walk: 24% Roll: 60%	Walk: 24% Roll: 60%
	9.b	Active transportation mode share	% of trips made by bicycle or walking	13.1%	13.2%	13.1%	13.2%

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Goal 4

Transform LA County through regional collaboration and national leadership

In order to achieve the vision laid out in its strategic plan, Metro must further cooperation, coordination, and collaboration with Metro and its many partners and stakeholders. This means being a leader and partnering with local jurisdictions to manage the transportation system, relieve congestion, and increase resident and freight mobility.

The LRTP will help advance this goal and measure progress towards three supporting objectives:

1. Manage roadway congestion
2. Increase share of travel by non-SOV modes
3. Support efficient goods movement

These objectives and related performance measures, highlighted in Figure 45 below, quantify system-level performance in terms of roadway congestion, mode share, and goods movement.

- > Vehicle hours of delay (VHD) per capita is expected to increase significantly between 2017 and 2047, from 82 hours per capita currently to over 135 hours per person per year in 2047. With the Measure M scenario, that number is expected to decrease by 12% to 119 annual hours per capita. In the 2020 LRTP scenario, VHD per capita is 22% less than the 2047 Trend.
- > Per capita vehicle miles traveled (VMT) are expected to increase by over 6% between 2017 and 2047. The Measure M scenario is expected to decrease VMT by over 1% compared to the Trend. With the additional bold policies in the 2020 LRTP scenario, the LRTP could result in a 7% reduction.
- > Person throughput is normally calculated at a corridor level. At the county level, the Mobility Index can be used as a proxy for throughput. This index quantifies how fast people are moving through the network. Between 2017 and 2047, the index drops from 41 to 34.6, indicating that conditions are expected to worsen. However, the throughput of the Measure M scenario is 7% higher than that of the Trend and the 2020 LRTP scenario is 12% higher than the Trend.

- > Over the past five years, the California Highway Patrol (CHP) cleared incidents on freeways in 35 minutes on average. For collisions, the rate was 42 minutes. Over the five year period, the average clearance time increased by 8% for all incidents and 5% for collisions.
- > Annual transit trips are expected to increase from 309 million in 2017 to 384 million in the Trend scenario. With the Measure M scenario, transit trips are expected to increase by 24% compared to the Trend, and with the addition of the bold policies included in the 2020 LRTP, the transit trips are expected to increase by 81% compared to the Trend.
- > The majority of travel is made by private vehicle, and as currently forecasted, will continue to be the case in the future. Drive alone mode share is around 46% and is expected to see only a slight decrease in the Measure M scenario. There will be a slight increase in the transit mode share, from 2.9% in 2017 to 3.1% in the Trend scenario. The Measure M scenario is predicted to increase the mode share to 3.9%, a 24% increase, and a more significant jump to 5.7% in the 2020 LRTP scenario, an 81% increase.
- > Between 2017 and 2047, truck vehicle hours of delay (VHD) is expected to increase significantly. However, between the Trend and Measure M scenarios, truck VHD is expected to decrease by 12%.
- > Travel time reliability for trucks is measured as the buffer time index on the Countywide Strategic Truck Arterial Network. This index quantifies how much longer a trip in bad traffic (the 95th percentile of travel times) is relative to the average trip at that time. On the CSTAN, it is 14% worse in the AM peak and 12% worse in the midday periods.

Figure 45

Goal 4 Systemwide Performance Results

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
Manage roadway congestion	10.a	Vehicle hours of delay per capita	Vehicle hours of delay per capita	82	136	119	93
	10.b	Vehicle miles traveled per capita	Vehicle miles traveled per capita	7,888	8,369	8,246	7,647
	10.c	Total person throughput	Mobility Index = (PMT/PHT) X (PMT/VMT)	41.0	34.6	37.0	41.5
	10.d	Average roadway incident clearance time	Average roadway incident clearance time for all incidents and collisions (minutes)	All: 34.6 Collisions: 42.1	NA	NA	NA
Increase share of travel by non-SOV modes	11.a	Annual transit trips	Annual transit trips	309 million	384 million	477 million	695 million
	11.b	Mode share	SOV mode share	46.2%	46.3%	45.8%	43.0%
			Carpool mode share	37.8%	37.3%	37.2%	38.1%
			Transit mode share	2.9%	3.1%	3.9%	5.7%
			Walk mode share	12.0%	12.1%	12.0%	12.1%
		Bike mode share	1.0%	1.1%	1.1%	1.1%	
Support efficient goods movement	12.a	Truck vehicle hours of delay	Annual truck vehicle hours of delay	35.8 million	97.0 million	85.2 million	
	12.b	Truck travel time reliability	% variation in AM and Midday travel time (in minutes) on CSTAN	AM: 14% Midday: 12%	NA	NA	NA

Goal 5

Provide responsive, accountable, and trustworthy governance within Metro

As the county's Regional Transportation Planning Authority and the designer, builder, and operator of California's largest transit system, Metro has the responsibility to LA County residents and tax payers to be good stewards of public resources. Furthermore, to deliver the best mobility outcomes and build partnerships, Metro must improve business practices to be responsive, accountable, and trustworthy. The LRTP will help advance this goal and measure progress towards two supporting objectives:

1. Maintain a state of good repair of transportation assets
2. Ensure accountability through transparent reporting practices

These objectives and related measures, highlighted in Figure 46 below, quantify system-level performance in terms of system preservation and transparency.

- > On the National Highway System (NHS), which includes all interstates and state routes in LA County, 50% of the lane miles are in good condition and only 3% are in poor condition. Alternatively, 66% of the lane miles of principal arterials in LA County are in poor condition and only 6% are in good condition. For bridges, 69% are in good condition and 4% are in poor condition.
- > Metro's Transit Asset Management (TAM) group monitors the condition of Metro's transit assets, which include revenue vehicles, service vehicles, equipment, facilities, infrastructure, and other assets. This performance measure tracks the amount of funding projected to be available for TAM relative to the overall need. This unfunded need is 17% of the total TAM need over a 25 year period.

- > Metro has released all of their legally mandated and financial disclosure reports. These include the triennial audits performed for the Federal Transit Administration and one prepared for Caltrans as a recipient of California's Transportation Development Act (TDA) funding. These include releasing the annual budget and Comprehensive Annual Financial Report (CAFR) each year. Finally, these include audits performed on behalf of the Independent Citizen's Advisory and Oversight Committee for Propositions A and C and Measures R and M.

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Figure 46

Goal 5 Systemwide Performance Results

SYSTEM PERFORMANCE OBJECTIVES	#	PERFORMANCE MEASURES	PERFORMANCE METRIC DESCRIPTION	EXISTING (2017)	TREND (2047)	MEASURE M (2047)	2020 LRTP (2047)
Maintain a state of good repair of transportation assets	13.a	Percent of roads and highway bridges in good and fair condition	Percent of National Highway System in good and fair condition	Good: 50% Fair: 56% Poor: 3%	NA	NA	NA
			Percent of principal arterials in good and fair condition	Good: 6% Fair: 29% Poor: 66%	NA	NA	NA
			Percent of bridges in good and fair condition	Good: 69% Fair: 27% Poor: 4%	NA	NA	NA
	13.b	Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life	Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life	17%	NA	NA	NA
Ensure accountability through transparent reporting practices	14.a	Legal and policy reports issued on time	Percent of legally mandated and financial disclosure documents issued on time	100%	NA	NA	NA

Title VI Analysis

The Title VI analysis was performed to assess the transportation impacts on distinct socioeconomic groups in LA County. The transportation impacts analyzed include:

- > Job accessibility within 60 minutes via transit; and
- > Mode choice by income quintile.

The distinct socioeconomic groups include:

- > Transit dependent;
- > African American;
- > Hispanic; and
- > Asian/Pacific Islander.

Using information from the U.S. Census Bureau (2013-2017 American Community Survey [ACS] 5-Year Estimates), a Census Tract (CT) area was designated as transit-dependent if it met one or more of the following criteria:

- > Zero-car ownership – 9.43% or more of the households do not own a car;
- > Low-income – 21.92% or more of the households have income of \$25,000 or less (in 2017 inflated-adjusted dollars); or
- > Senior citizens with medium-low-income – 12.81% or more of the individuals aged 65 or older, and median household income is less than \$59,410.

CTs were also designated with a specific socioeconomic group, if its population exceeded the socioeconomic group’s average for LA County (e.g., a CT with ten percent of households comprised of African Americans would be deemed an African American CT since that exceeded the 8.2 percent average for LA County). Figure 47 summarizes the ethnic population of LA County based on the 2017 ACS. Hispanic or Latino residents, at 48.4 percent of the population, comprise the largest non-white group in the County. Figure 48 presents the race population of LA County based on the 2017 ACS.

Figure 47

Los Angeles County Ethnicity Based on 2017 ACS

	POPULATION	PERCENT
Hispanic or Latino	4,893,579	48.4%
Non-Hispanic Black or African American	799,579	7.9%
Non-Hispanic Asian/Pacific Islander	1,467,527	14.5%
Non-Hispanic White	2,676,962	26.5%
Non-Hispanic American Indian or Alaska Native	19,915	0.2%
(Non-Hispanic) Some other race	28,960	0.3%
(Non-Hispanic) Two or more races	219,180	2.2%
Total	10,105,722	100.0%

Figure 48

Los Angeles County Race Based on 2017 ACS

	POPULATION	PERCENT
Black or African American	828,981	8.2%
White	5,232,835	51.8%
Asian/Pacific Islander	1,488,199	14.7%
American Indian and Alaska Native	68,211	0.7%
Some other race	2,101,984	20.8%
Two or more races	386,412	3.8%
Total	10,105,722	100.0%

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In addition to transit-dependency and socioeconomic group, Census Tracts were also classified by household income quintiles. The quintiles represent:

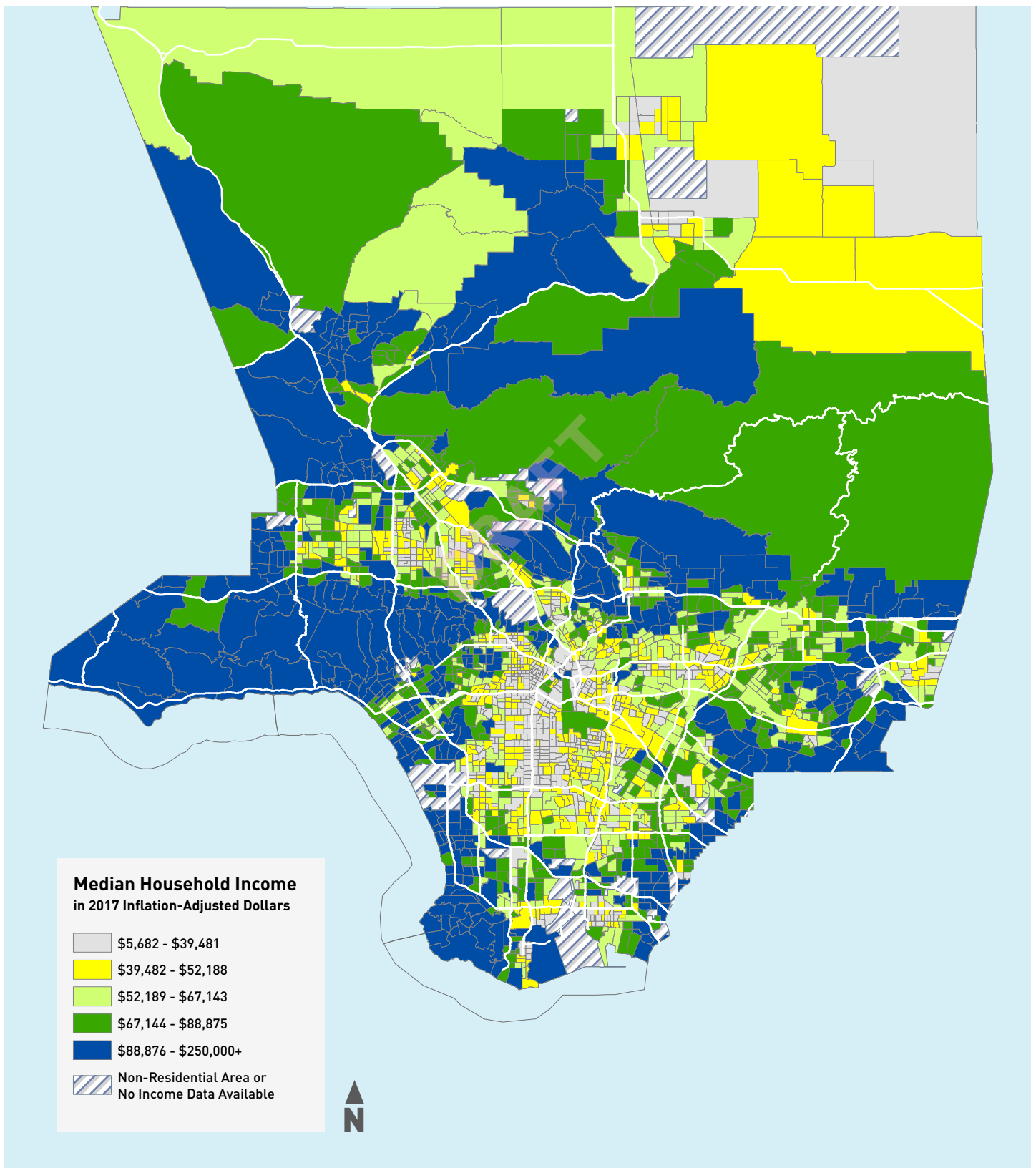
- > Low income – less than \$39,481
- > Moderate income – \$39,482 to \$52,188
- > Medium income – \$52,189 to \$67,143
- > Above average income – \$67,144 to \$88,875
- > High income – greater than \$88,876

CTs by income quintiles are illustrated in Figure 49. Low-income CTs are concentrated in Central Los Angeles while the high-income CTs are concentrated in the western part of LA County.

Median household income, as defined in the 2017 ACS, is \$54,501 (in 2017 inflated-adjusted dollars). A CT is designated with a specific income quintile, if its median household income falls into the range for that quintile (e.g., a CT with a median household income of \$25,000 would be designated as a low-income CT).

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Figure 49
2017 ACS MEDIAN ZONAL INCOME IN QUINTILES



Source: U.S. Census Bureau 2013–2017 American Community Survey (ACS), 5-Year Estimates, Table B19013

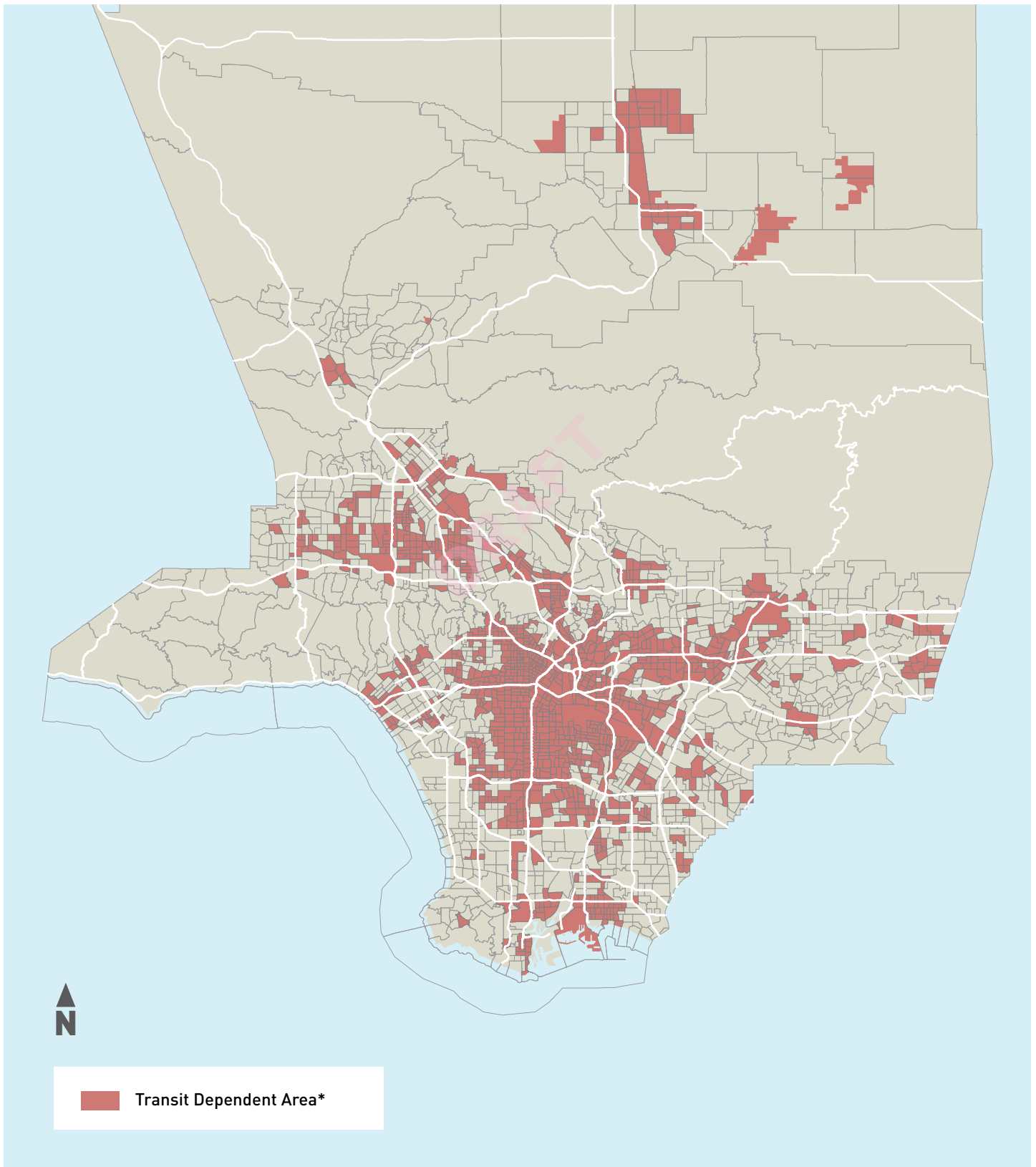
Geographic Distribution of Socioeconomic Groups

Figure 50, Figure 51, Figure 52, and Figure 53 illustrate the distribution of transit dependent, African American, Hispanic, and Asian/Pacific Islander populations, respectively, throughout LA County. Figure 50 shows that CTs with a preponderance of transit-dependent households are concentrated in Central Los Angeles. Figure 51 illustrates the locations of CTs with a majority of African American households, which tend to be concentrated in Central Los Angeles, extending toward the southern part of the County. As shown in Figure 52, Hispanic majority CTs are dispersed throughout LA County, concentrated mainly in Central Los Angeles, and extending toward the eastern part of the County. Figure 53 displays the Asian/Pacific Islander households and shows they are concentrated mainly in the San Gabriel Valley, with pockets in the South Bay.

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Figure 50

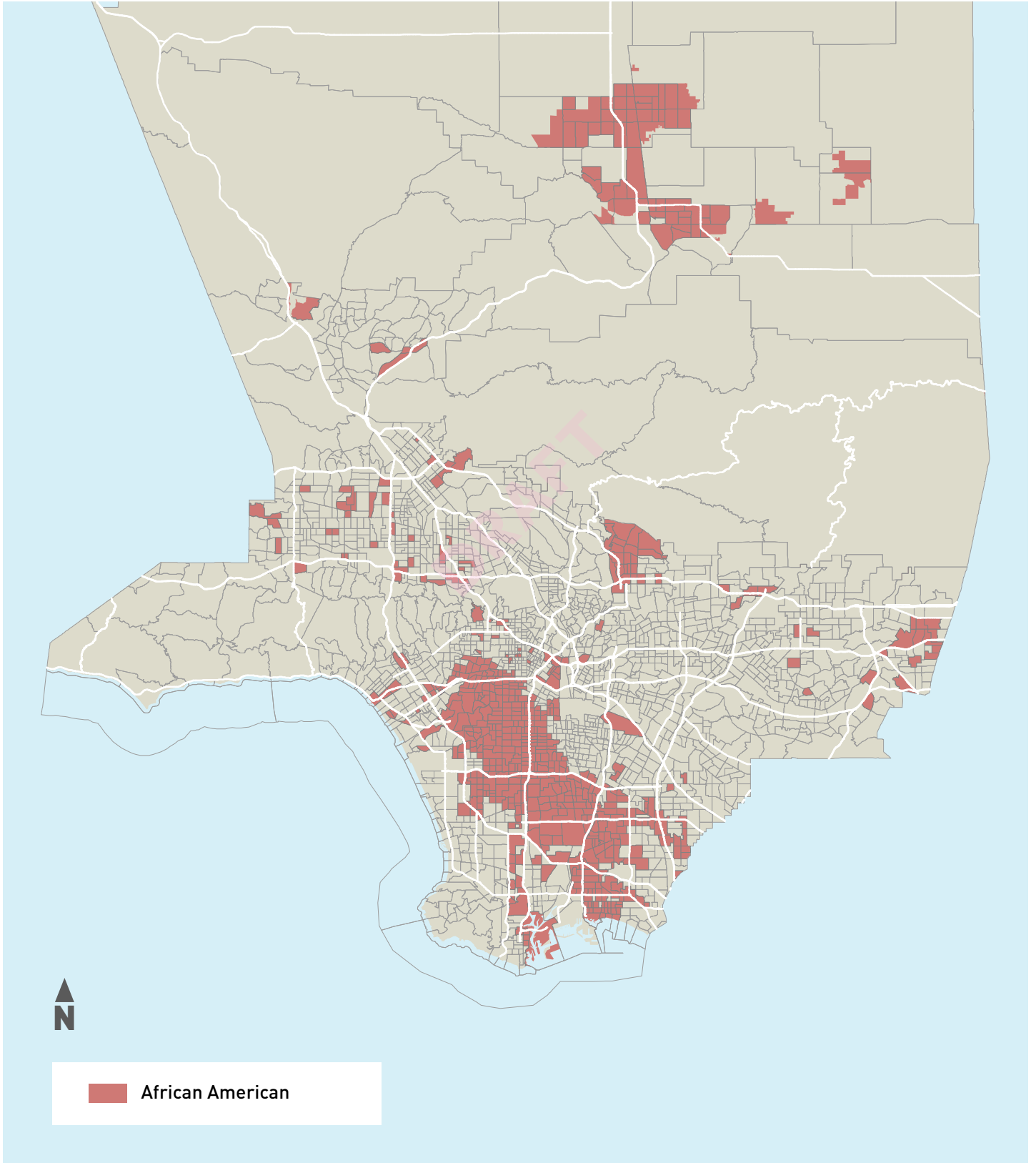
TRANSIT-DEPENDENT POPULATION



Source: U.S. Census Bureau 2013–2017 American Community Survey (ACS), 5-Year Estimates

Figure 51

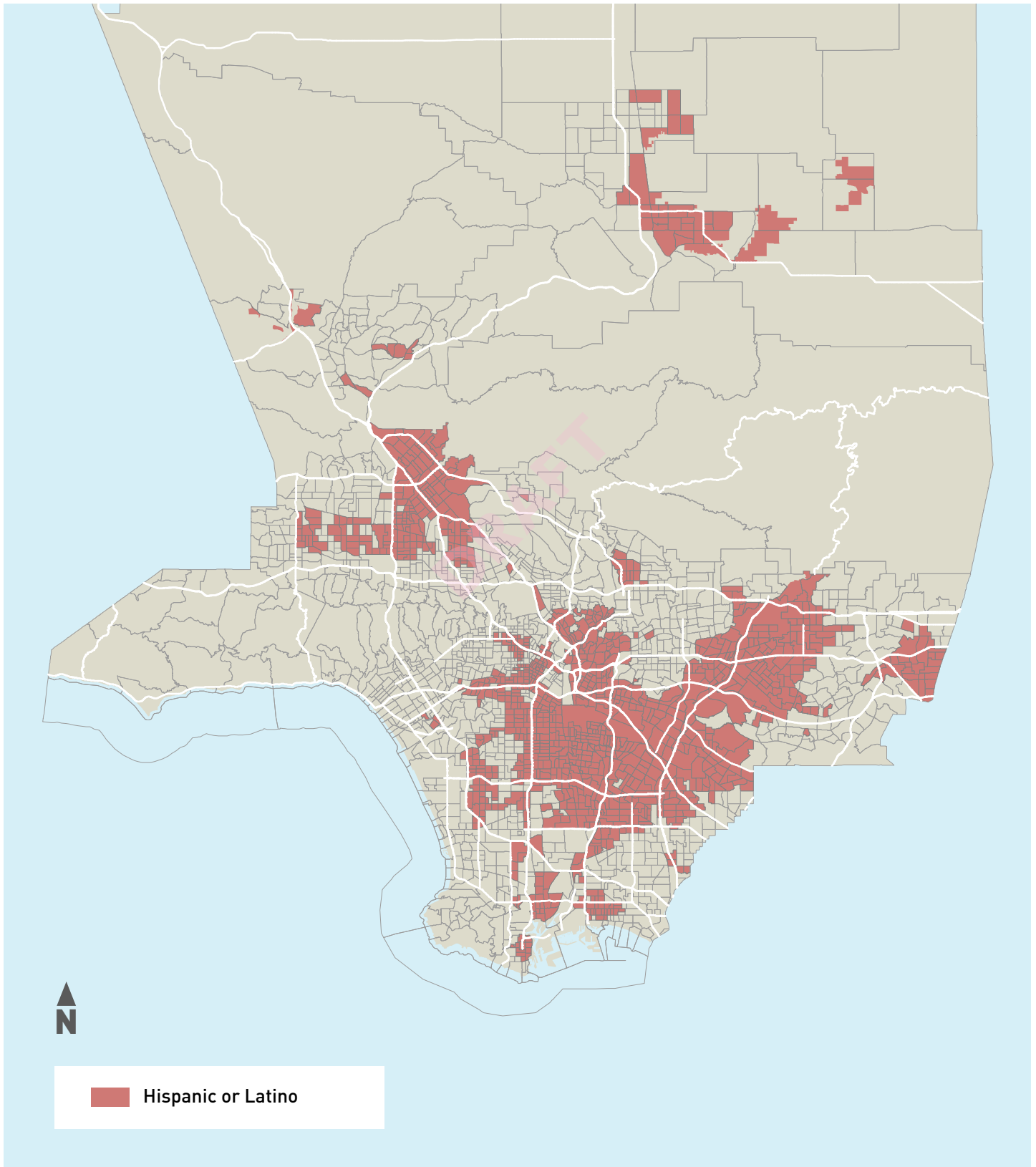
AFRICAN AMERICAN POPULATION



Source: U.S. Census Bureau 2013–2017 American Community Survey (ACS), 5-Year Estimates, Table B02001

Figure 52

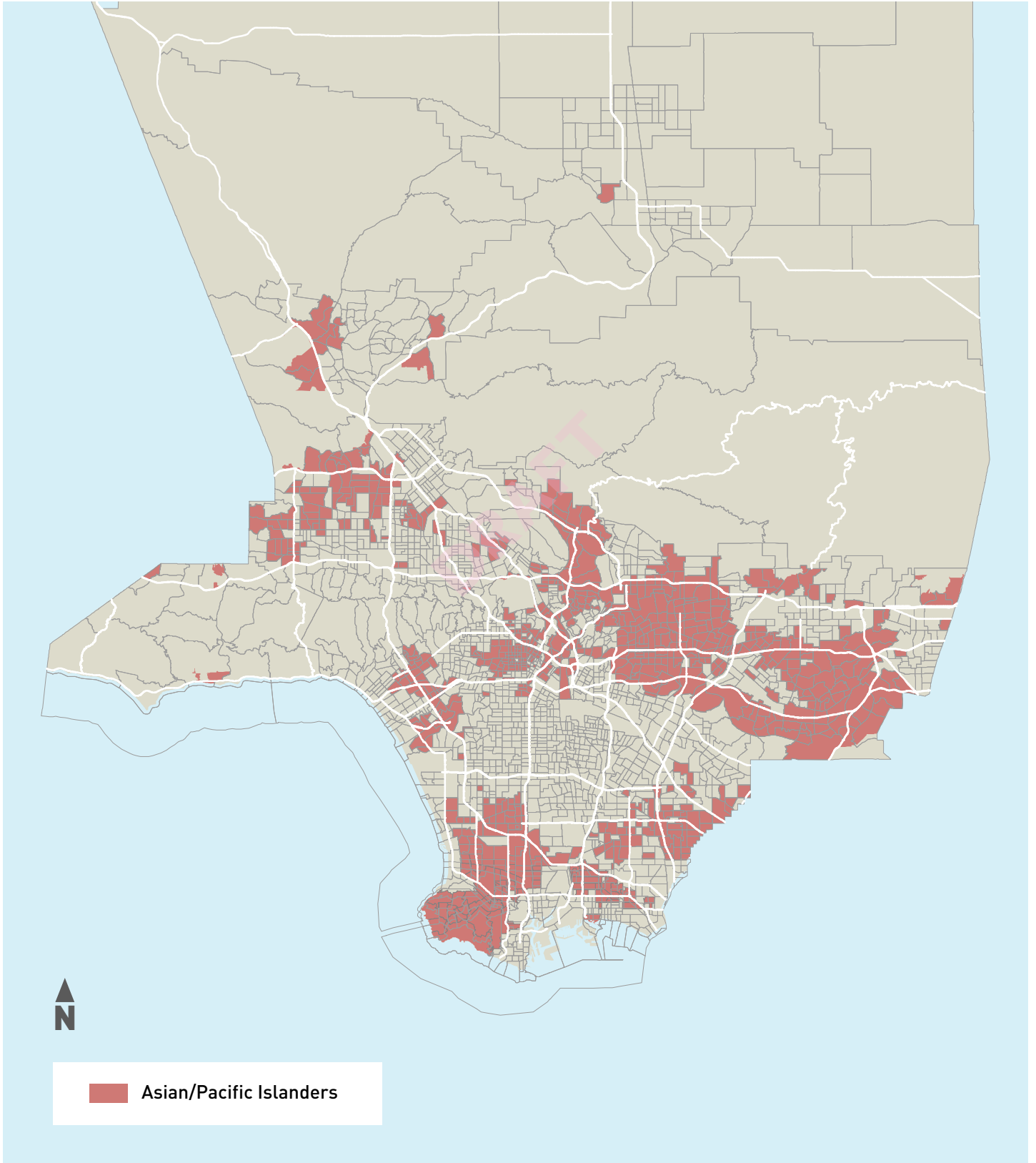
HISPANIC OR LATINO POPULATION



Source: U.S. Census Bureau 2013–2017 American Community Survey (ACS), 5-Year Estimates, Table B03002

Figure 53

ASIAN/PACIFIC ISLANDER POPULATION

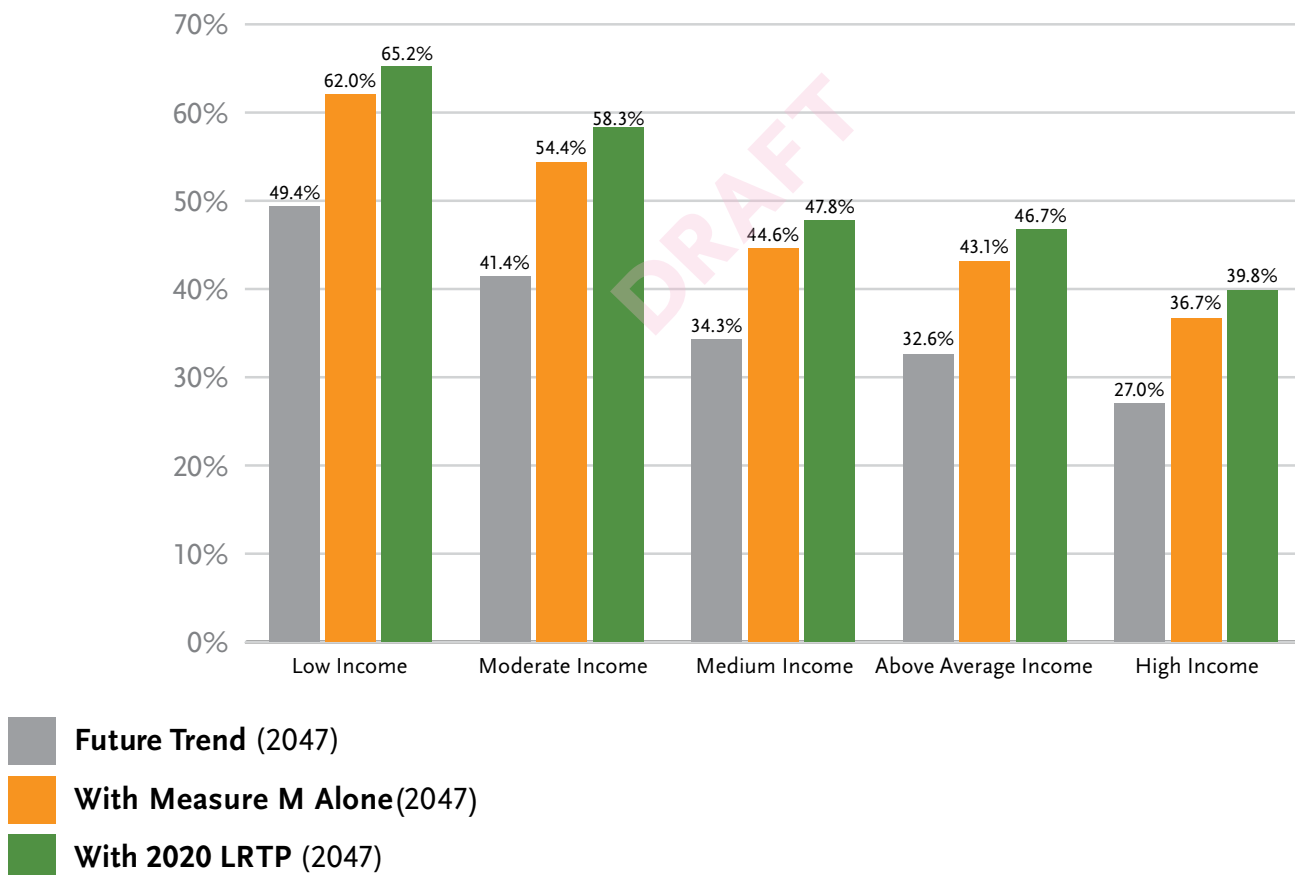


Source: U.S. Census Bureau 2013–2017 American Community Survey (ACS), 5-Year Estimates, Table B02001

Job Accessibility

Figure 54 illustrates, by income quintile, the percentage of jobs that can be made via transit in a sixty-minute period. Low-income TAZs are expected to benefit the most from transit accessibility as the 49.4 percent of jobs that can be reached via transit in the Future Trend scenario are expected to improve to 62.0 percent in the Measure M scenario, and to 65.2 percent with the 2020 Plan scenario. All income quintiles are expected to see an improvement in transit accessibility with implementation of the 2020 Plan.

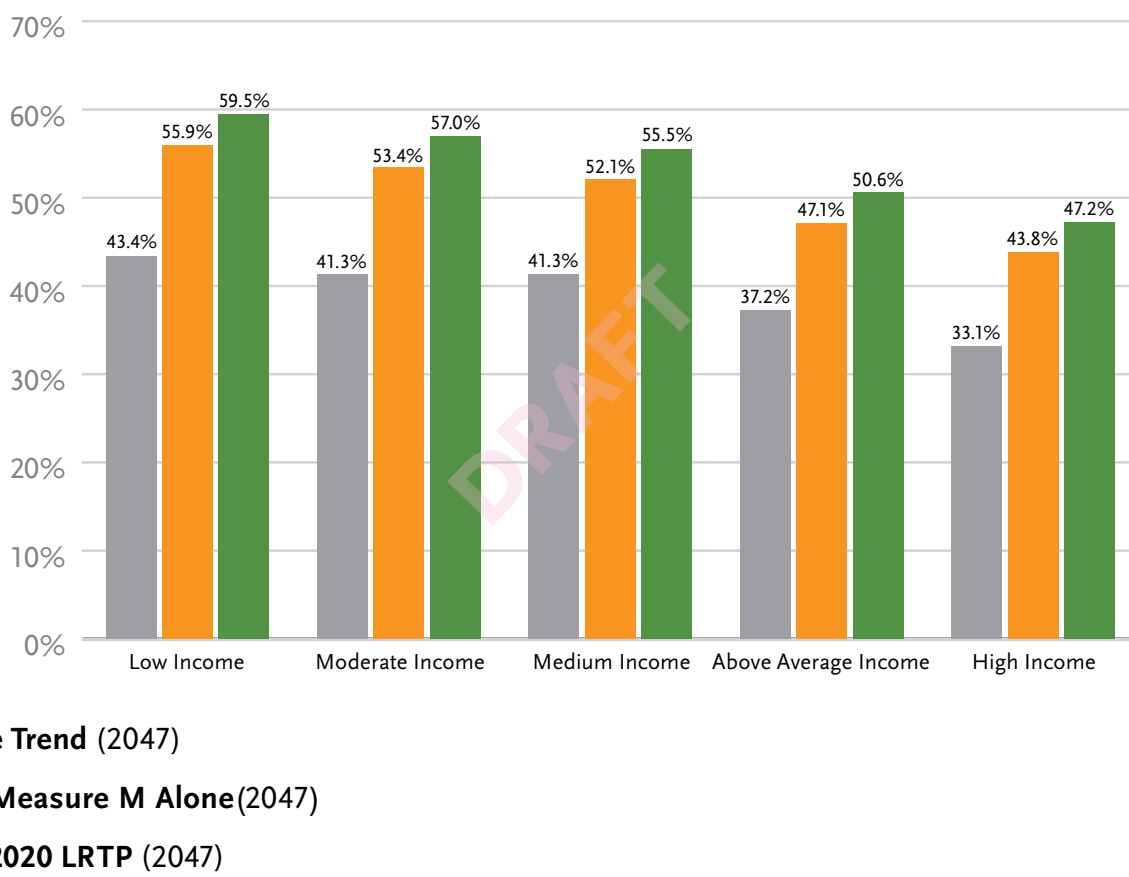
Figure 54
Job Accessibility by Income Quintile



*Percent of jobs within 60 minutes transit travel time during peak periods

Figure 55 displays the job accessibility by population subgroup. The transit-dependent population is expected to benefit the most from the 2020 Plan with 43 percent of jobs accessible within 60 minutes of transit in the Trend, 56 percent in Measure M, and 60 percent with the Plan. All other population subgroups are expected to see an increase in transit accessibility as well.

Figure 55
Job Accessibility by Population Subgroup



*Percent of jobs within 60 minutes transit travel time during peak periods

Mode Choice

Figure 56 illustrates, by income quintile, the mode split of home-to-work trips. Transit usage is expected to be higher for low-income households compared to other income groups in Trend scenario (18 percent), increasing to 20 percent for the Measure M scenario, and to 27 percent for the 2020 Plan scenario. All other income quintiles are also expected to experience an increase in transit usage as well.

Figure 57 displays the mode choice by population subgroup. The transit-dependent population is expected to increase transit usage from 13 percent in the Trend scenario to 15 percent in the Measure M scenario, and to 21 percent with the 2020 Plan. The non-minority populations also will see an increase from approximately 6 percent in the Trend scenario to about 8 percent in the Measure M scenario, and 11 percent in the 2020 Plan scenario. All other population subgroups are expected to increase transit usage as well.

Figure 56
Mode Choice by Income Quintile

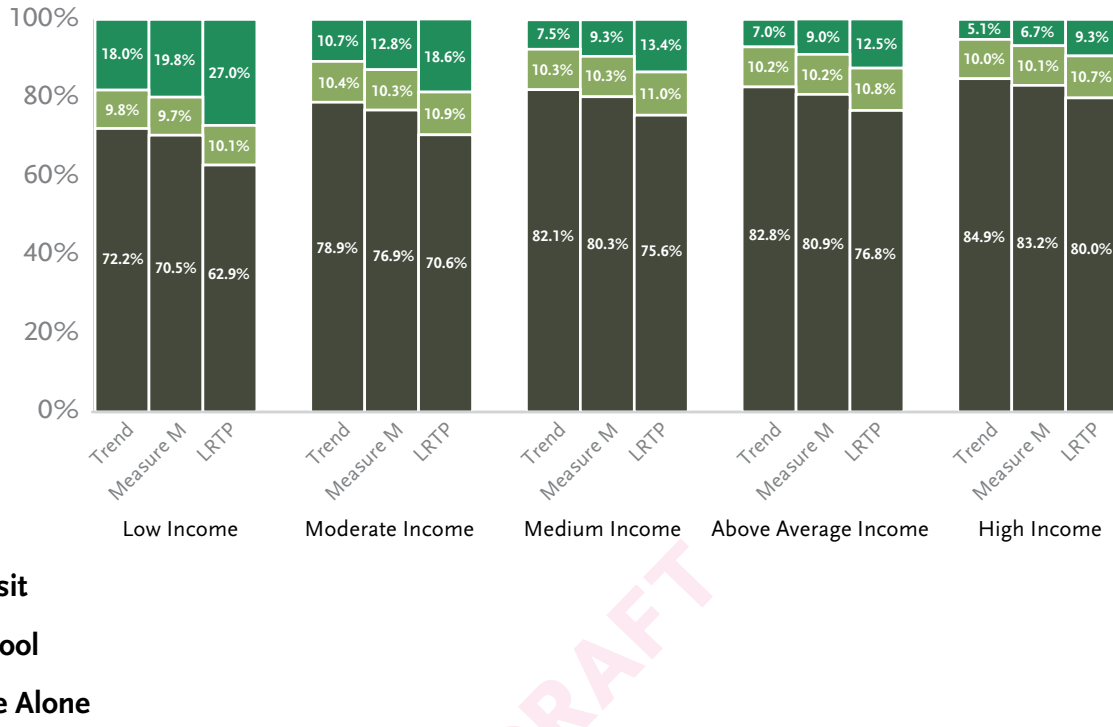
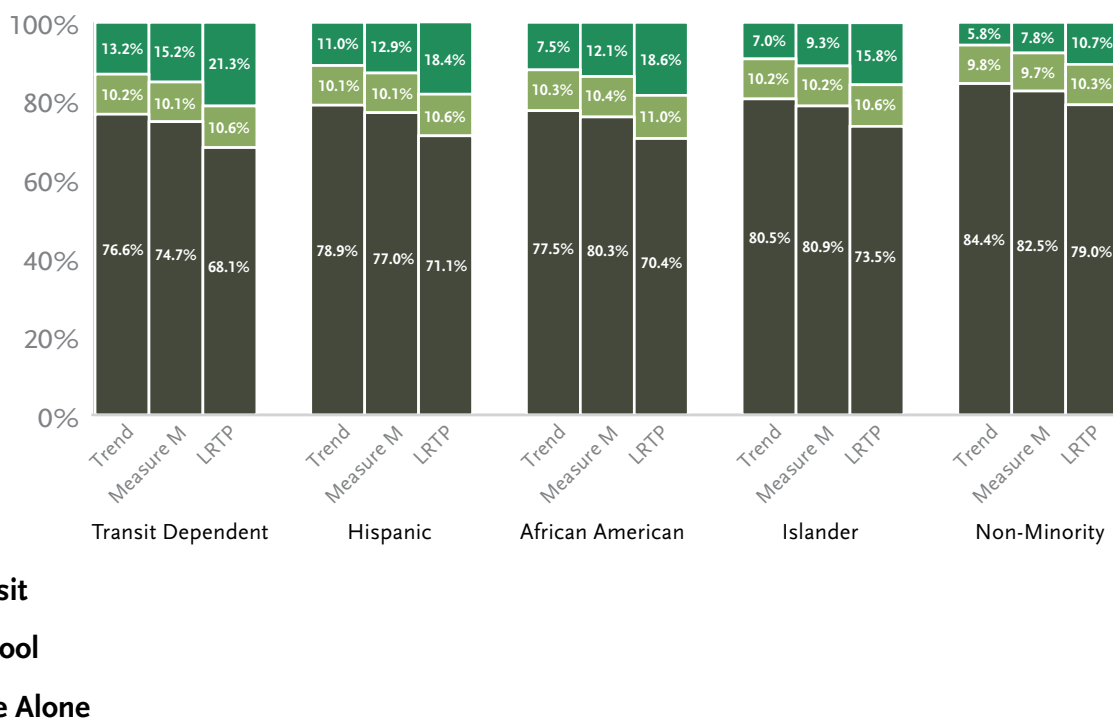


Figure 57
Mode Choice by Population Subgroup



Ongoing Monitoring

Ongoing monitoring of system performance is important to understanding how the region is changing over time and how effective Metro's programs and policies are at addressing our goals. The LRTP is a living document that can be amended as necessary; however, historically the LRTP has been updated approximately every six to eight years. As the region experiences changes every year, there are a subset of performance measures that are monitored more frequently to understand how the current conditions of our transportation system evolve.

The performance measures included in the 2020 LRTP are varied and can be categorized in different ways depending on the type (outcome vs process-oriented), the data utilized, and what Metro can and cannot influence. While some measures are more meaningful to track over time, others are better suited for forecasting and comparing alternative future scenarios. Some measures are clearly within Metro's control, while others are influenced by several competing regional factors.

Figure 58 displays each performance measure and the data source.

Measures that Metro should track on a regular basis should be updated frequently and should be capable of meaningfully changing each year. Metro is committed to establishing an ongoing monitoring framework to track performance measures prior to the next LRTP update.

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Figure 58

Performance Measures and Data Source

PERFORMANCE MEASURES	DATA SOURCE
Travel time by mode	Metro Travel Demand Model (TDM) (2017)
Travel time reliability by mode	Freeways: Caltrans Performance Measurement System (PeMS)
	Arterials: Metro Arterial Performance Measurement Tool
Percent of households and jobs within 10-minute walk or roll of high-quality transit	Transit stops: Metro Service Planning GIS Data
	Households: US Census Bureau ACS (2017)
	Jobs: US Census Transportation Planning Products
Transit competitiveness (vs. driving) in key travel markets	Metro Travel Demand Model (2017)
	Data from NextGen Bus Study
Person travel hours in non-SOV modes	Metro Travel Demand Model (TDM) (2017)
Active transportation mode share	National Household Travel Survey (2017) – California Add-On
	US Census Bureau ACS (2017)
Collisions by mode by severity	Statewide Integrated Traffic Records System (SWITRS)
Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit	Existing & Planned Bicycle Facilities - Metro GIS (2018)
	Sidewalks – No Inventory Currently Available
	Metro rail stations and bus stops – Metro GIS
Part I & II crimes reported on Metro transit system	LA Police Department (LAPD) (2018)
	LA Sheriff's Department (LASD) (2018)
	Long Beach Police Department (LBPD) (2018)
Customer satisfaction with Metro bus, rail, and Express Lanes systems	Metro On-Board Customer Satisfaction Survey
Travel time by mode in EFCs	Metro Travel Demand Model (TDM) (2017)
	Metro Equity Focus Communities (2019)
Percent of EFC households within 10-minute walk or roll of high quality transit	Transit stops: Metro Service Planning GIS Data
	Households: US Census Bureau ACS (2017)
	Jobs: US Census Transportation Planning Products
	Metro Equity Focus Communities (2019)
Collisions by mode and severity in EFCs	Statewide Integrated Traffic Records System (SWITRS)
	Metro Equity Focus Communities (2019)
Miles of protected bicycle pathways and sidewalks within ½ mile of high quality transit in EFCs	Existing & Planned Bicycle Facilities – Metro GIS (2018)
	Sidewalks – No Inventory Currently Available
	Metro rail stations and bus stops – Metro GIS
	Metro Equity Focus Communities (2019)
Affordable housing within ½ mile of high quality transit in EFCs	California Housing Partnership - LA County Annual Housing Outcome Report (2018)
	Metro Equity Focus Communities (EFCs)
Percent of household income spent on combined transportation and housing costs in EFCs	US Census Bureau ACS (2017)
	Metro Travel Demand Model (2017)
	Equity Focus Communities (2019)

PERFORMANCE MEASURES	DATA SOURCE
Air quality pollutants in EFCs	California Air Resources Board EMFAC 2017 Web Database (v 1.0.2)
	Metro Travel Demand Model (TDM) (2017)
	Metro Equity Focus Communities (EFCs)
Percent of activity centers in EFCs within 10-minute walk or roll of high quality transit	LA County Location Management System (LMS) (2016)
	Metro rail stations and bus stops – Metro GIS
	Metro Equity Focus Communities (EFCs)
Percent of roads and highway bridges in good and fair condition in EFCs	Caltrans Automated Pavement Condition Survey Report (APCS), Caltrans Pavement Management System (PaveM),
	City and county pavement management systems
	Federal Highway Administration (FHWA) Highway Performance Monitoring System (HPMS)
	Metro Equity Focus Communities (EFCs)
Affordable housing within 1/2 mile of high quality transit	California Housing Partnership - LA County Annual Housing Outcome Report (2018)
Percent of household income spent on combined transportation and housing costs	US Census Bureau ACS (2017)
	Metro Travel Demand Model (2017)
Jobs within 1/2 mile of high quality transit	US Census Bureau's Census Transportation Planning Products
	Metro Service Planning data
Regional economic growth attributable to transportation investments	Metro Travel Demand Model (2017)
	Metro Financial Model
	Regional Economic Models Inc (REMI) TranSight
Regional jobs attributable to transportation investments	Metro Travel Demand Model (2017)
	Regional Economic Models Inc (REMI) TranSight
GHG emissions	California Air Resources Board EMFAC 2017 Web Database (v 1.0.2)
	Metro Travel Demand Model (TDM) (2017)
Air quality pollutants	California Air Resources Board EMFAC 2017 Web Database (v 1.0.2)
	Metro Travel Demand Model (TDM) (2017)
Percent of activity centers within 10-minute walk or roll of high quality transit	LA County Location Management System (LMS) (2016)
	Metro rail stations and bus stops – Metro GIS
Active transportation mode share	National Household Travel Survey (2017) – California Add-On
	US Census Bureau ACS (2017)
Vehicle hours of delay per capita	Metro Travel Demand Model (TDM) (2017)
Vehicle miles traveled per capita	Metro Travel Demand Model (TDM) (2017)
Total person throughput	Metro Travel Demand Model (TDM) (2017)
Average roadway incident clearance time	California Highway Patrol (CHP) Incident Logs from the Caltrans Performance Measurement System (PeMS)

PERFORMANCE MEASURES	DATA SOURCE
Annual transit trips	Metro Travel Demand Model (TDM) (2017)
Mode share	Metro Travel Demand Model (TDM) (2017)
	National Household Travel Survey – California Add-On (2017)
Truck vehicle hours of delay	Metro Travel Demand Model (TDM) (2017)
Truck travel time reliability	Freeways: Caltrans Performance Measurement System (PeMS)
	Arterials: Metro Arterial Performance Measurement Tool
Percent of roads and highway bridges in good and fair condition	Caltrans Automated Pavement Condition Survey Report (APCS), Caltrans Pavement Management System (PaveM)
	City and county pavement management systems (if available)
	Federal Highway Administration (FHWA) Highway Performance Monitoring System (HPMS)
Percent of backlog to state-of-good-repair funding needs to address transit assets past useful life	Metro Transit Asset Management Database
Legal and policy reports issued on time	Metro internal records from Metro Office of Management and Budget and Metro Management Audit Services Division (MASD)

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Subregional Profiles

LA County's 10 million residents are dispersed across nine subregions, each containing many jurisdictions, communities, and neighborhoods. Although each subregion has distinct characteristics, taken together they share common needs and challenges, particularly when it comes to transportation and quality of life. The partnership between the subregions and Metro is interdependent and collaborative, resulting in the development and implementation of creative transportation solutions for LA County.

This chapter addresses the unique transportation challenges throughout the County by subregion and the transportation solutions that were developed through a collaborative approach as part of the process to get Measure M, a half-cent sales tax with no sunset, approved. Each subregion's unique transportation needs are informed by their existing population, employment, land use, and major transportation infrastructure. Future transportation investment by subregion is informed by the 2014 Measure M process in which subregional working groups developed goals for analyzing unmet transportation needs. The process ultimately resulted in a project list that met the expected revenue generated by the tax measure.

Metro is committed to working with all of the subregions and cities to address transportation priorities based upon the issues and objectives they have developed, as well as any other issues that may arise.

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For planning purposes, LA County cities and communities are identified geographically by nine distinct, diverse, and vibrant subregions generally based on the existing Councils of Government (COGs) boundaries that range from 60 to 2,500 square miles in area. Some subregions are small, cooperative efforts staffed by city representatives; others are formalized COGs with paid staff; and some are geographic sub-sections of the City of Los Angeles.

In developing this chapter, subregional agencies were engaged early in the process to capture their insight on the unique transportation issues and challenges facing each subregion. The subregions are:

- > Arroyo Verdugo Cities
- > Central Los Angeles
- > Gateway Cities
- > Las Virgenes/Malibu
- > North Los Angeles County
- > San Fernando Valley
- > San Gabriel Valley
- > South Bay Cities
- > Westside Cities

Figure 59 illustrates the subregions in the County.

In January 2015, the Board approved the separation of major airports and seaports (including LAX, Long Beach Airport, Burbank Bob Hope Airport, Palmdale Regional Airport, and the Ports of Los Angeles and Long Beach), as well as Los Angeles Union Station into a Regional Facilities Planning Area, because improvements to these regional facilities benefit the entire county. Regional facilities are separate for funding purposes, but will be displayed within the Metro Subregional Planning Area Boundaries for LRTP Update data purposes, including travel demand modeling and census-based population data.

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Figure 59

LOS ANGELES COUNTY SUBREGIONS



Arroyo Verdugo Cities

The Arroyo Verdugo subregion includes Burbank, Glendale, Pasadena, South Pasadena, La Cañada Flintridge and La Crescenta-Montrose, a Census designated place. The region sits against a backdrop of the San Gabriel Mountains, on the northern edge of the Los Angeles Basin.

Major Transportation Facilities

Several major freeways traverse this subregion, including the Foothill (I-210), Glendale (SR-2), Golden State (I-5), and Ventura (SR-134) Freeways. Bus service in the subregion is provided by Metro and LADOT, as well as by local transit service providers in each of the member cities. Metro's L (Gold) Line provides rail service to communities in the eastern portion of the subregion. Metrolink's Ventura County and Antelope Valley Lines provide commuter rail services to Burbank and Glendale. Limited Amtrak service is also available. Burbank, Glendale, and La Cañada Flintridge provide paratransit services within their cities for the elderly and persons with disabilities. Service in La Cañada Flintridge is administered by the City of Glendale. Access Services, Inc. provides paratransit service in Arroyo Verdugo as part of its region-wide service.

Land Use and Demographics

Roughly 7 percent of the subregion is designated for commercial/industrial land use, and residential land use covers approximately 40 percent. The City of South Pasadena has the highest percentage of residential land use, while the largest total residential land use is located in the City of Pasadena. The largest industrial land use (by total area and percentage) can be found in the City of Burbank. Burbank also has a large percentage of commercial land use.

Bob Hope Airport is located in the City of Burbank. The airport can be reached by the I-5 Freeway or Metrolink rail. Hospitals in the subregion include Glendale Memorial Hospital, USC Verdugo Hills Hospital, Adventist Health Hospital, Huntington Hospital, Shriners for Children Medical Center, and Saint Joseph Medical Center. The subregion is also home to one of the world's most prestigious universities, California Institute of Technology. The city of Burbank, billed as the "Media Capital of the World", has numerous media and entertainment companies' headquarters and production facilities.

Figure 6o
ARROYO VERDUGO SUBREGION



Population densities tend to cluster along SR-134, I-5, and the Metro Gold Line. High population density areas can be found south of the Verdugo Mountains and east of San Rafael Hills. The City of South Pasadena is the smallest city by total area but has the highest population density in the subregion. High employment densities can also be found along the freeways and fixed guideways. The City of Burbank has the highest employment density and one of the largest commercial land use areas in the subregion. The City of Glendale is the largest city in the subregion by area and total population. The city ranks 2nd in population density and 3rd in employment/trip densities within the subregion. Employment centers can be found near major thoroughfares in the Cities of Burbank, Glendale, and Pasadena.

Arroyo Verdugo is the smallest subregion in the County covering 87 square miles and is home to five cities and unincorporated LA County. The subregion ranks 8th (out of 9) in total population, 7th in total employment, and 7th in total daily trips. The subregion is predominately non-Hispanic Whites and ranks 4th in the County for average median household income.

Major Projects and Programs

When the Metro Board of Directors approved Measure M, they approved a set of projects, programs, and local return funding for each subregion. The North Hollywood to Pasadena Transit Corridor connecting the L line (Gold) in Pasadena to the B Line (Red) and G Line (Orange) in North Hollywood is the subregion's major project in the Los Angeles County Traffic Improvement Program and anticipated to open in 2026. The substantial Subregional Programs in the region include highway efficiency, noise mitigation and arterial projects valued at over \$600 million (in 2015 \$) and transit projects valued at over \$250 million (in 2015 \$).

Figure 61

Arroyo Verdugo Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Project (YOE \$)	North Hollywood to Pasadena Transit Corridor \$315 M (2026)
Multi-year Subregional Programs (in 2015 \$)	Modal Connectivity and Complete Streets Projects \$202 M (Start Date FY 2018) Transit Projects \$257.1 M (Start Date FY 2018) Active Transportation Projects \$136.5 M (Start Date FY 2033) Goods Movement Projects \$81.7 M (Start Date FY 2048) Highway Efficiency, Noise Mitigation, and Arterial Projects \$602.8 M (Start Date FY 2048) Arroyo Verdugo Projects to be Determined \$110.6 M (Start Date FY 2048)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_Arroyo_Verdugo.pdf

Figure 62

ARROYO VERDUGO DAILY TRIPS

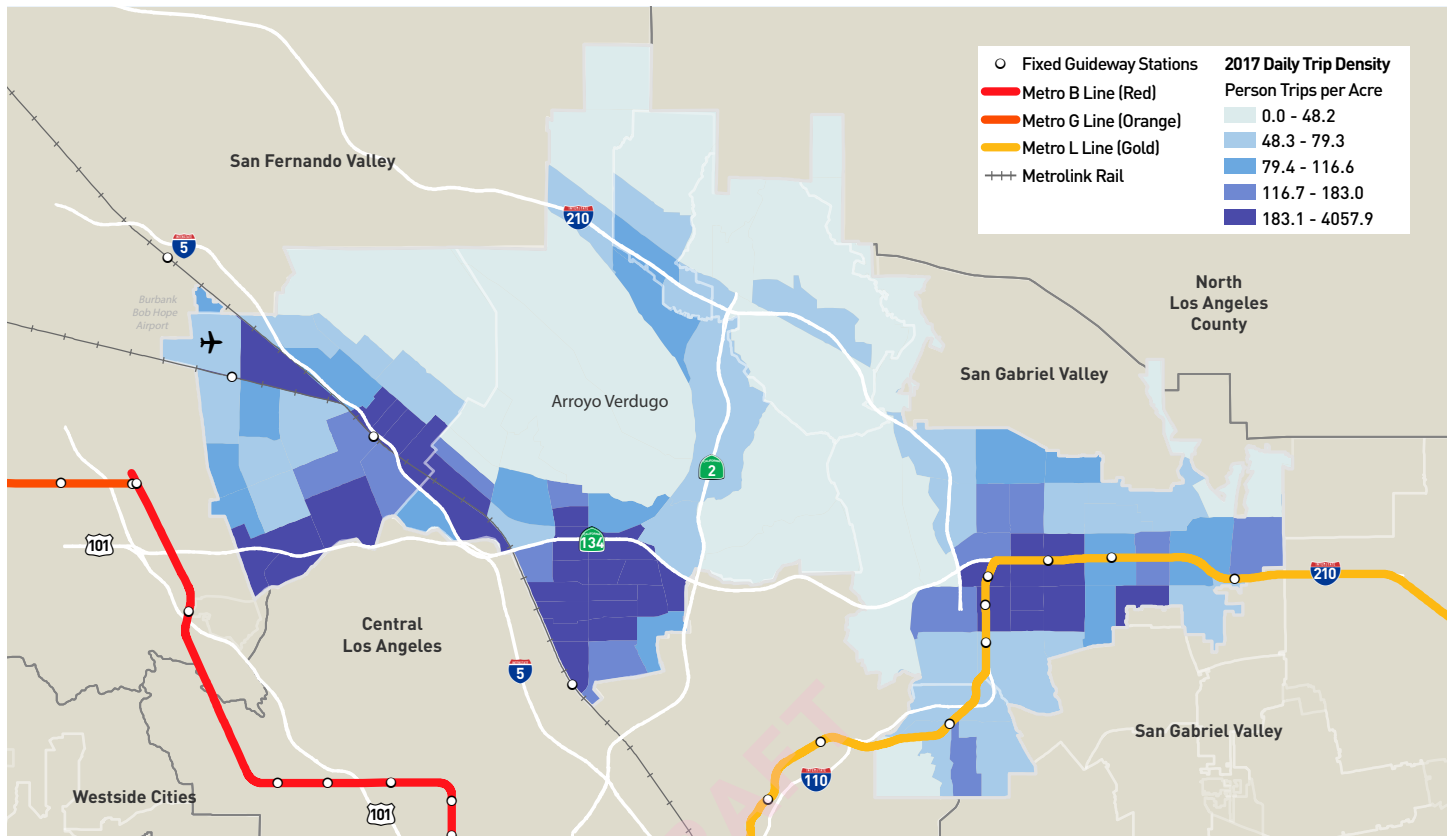


Figure 63

ARROYO VERDUGO EMPLOYMENT DENSITY

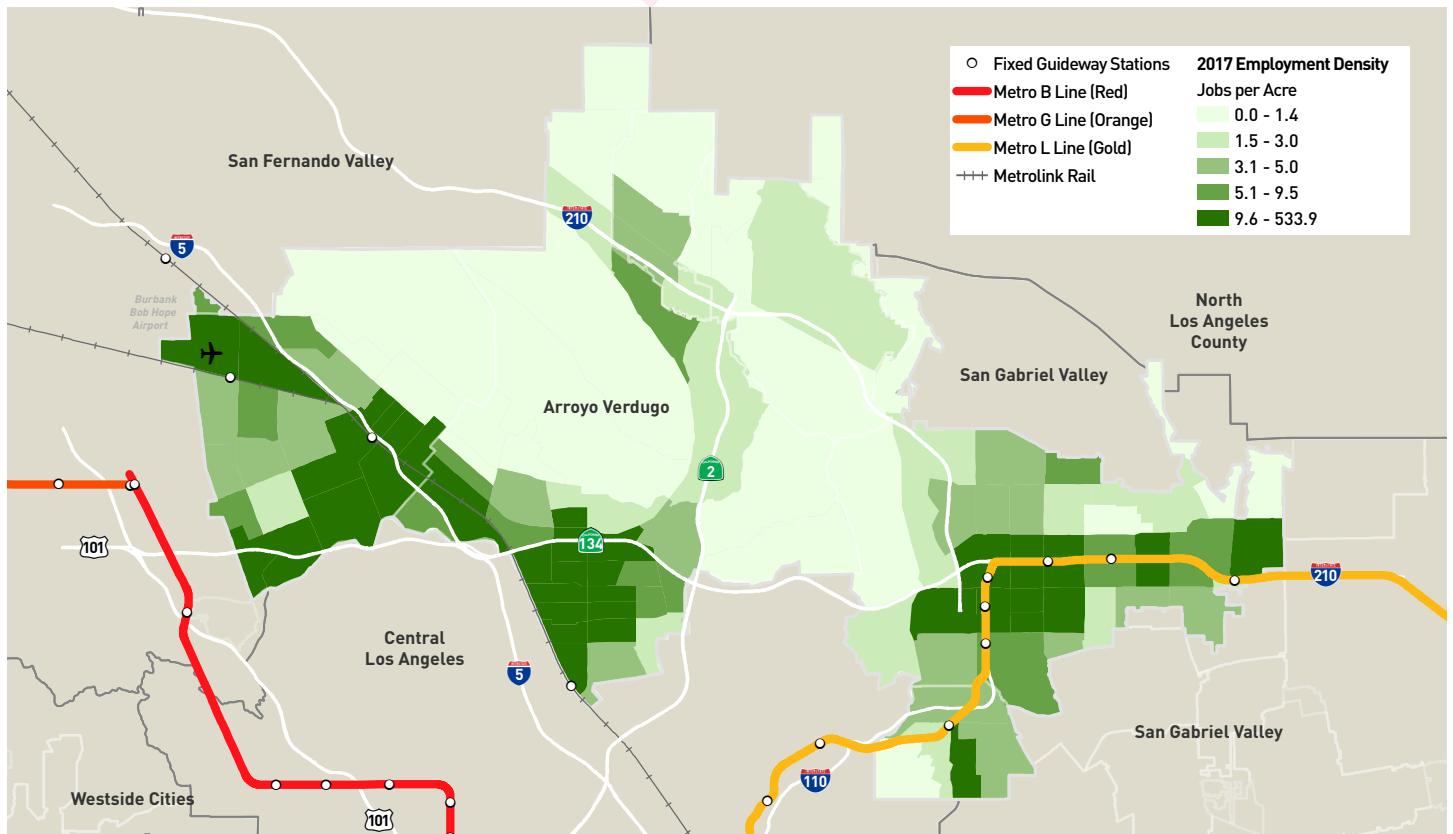


Figure 64

ARROYO VERDUGO POPULATION DENSITY

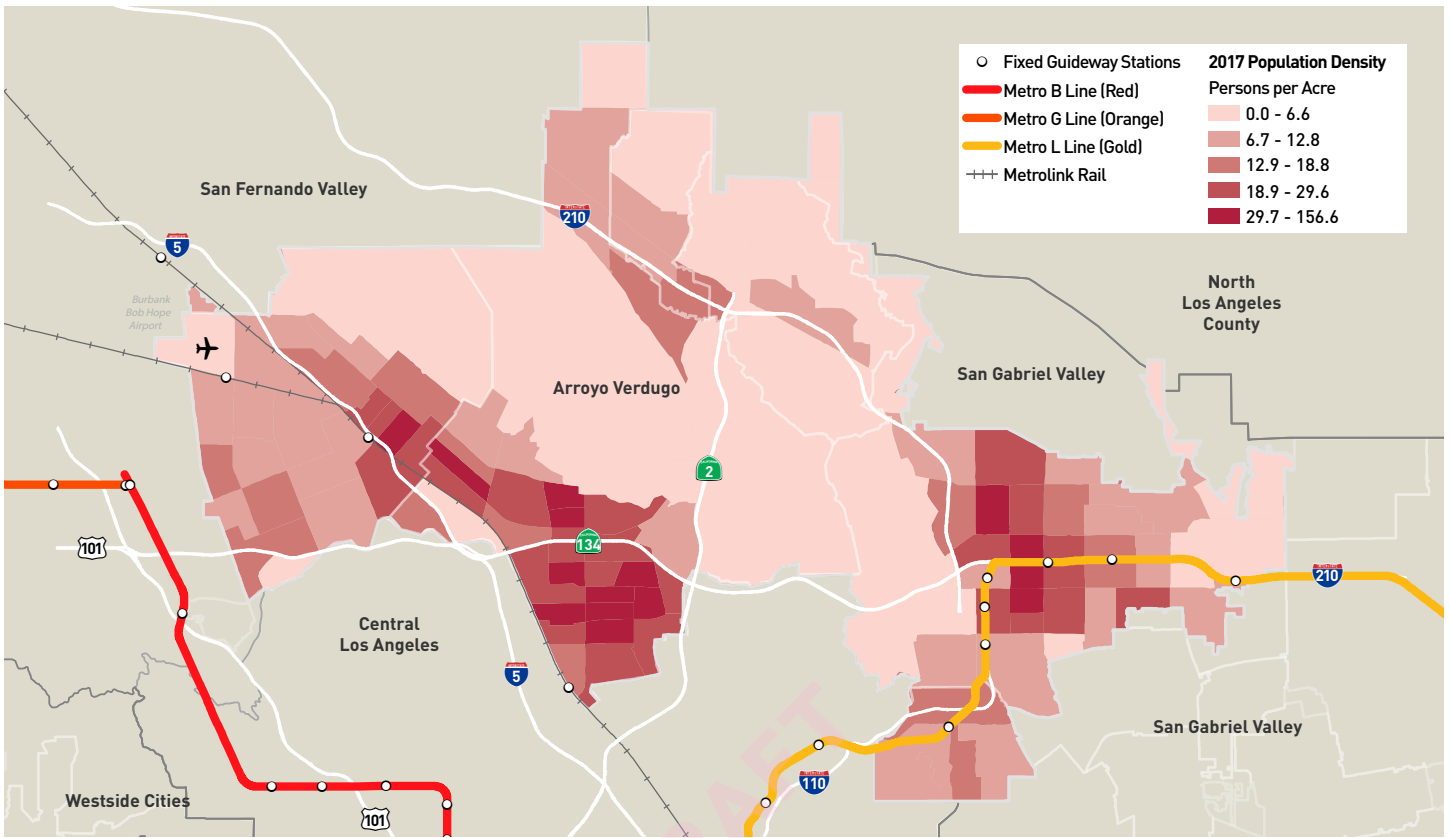


Figure 65

ARROYO VERDUGO LAND USE

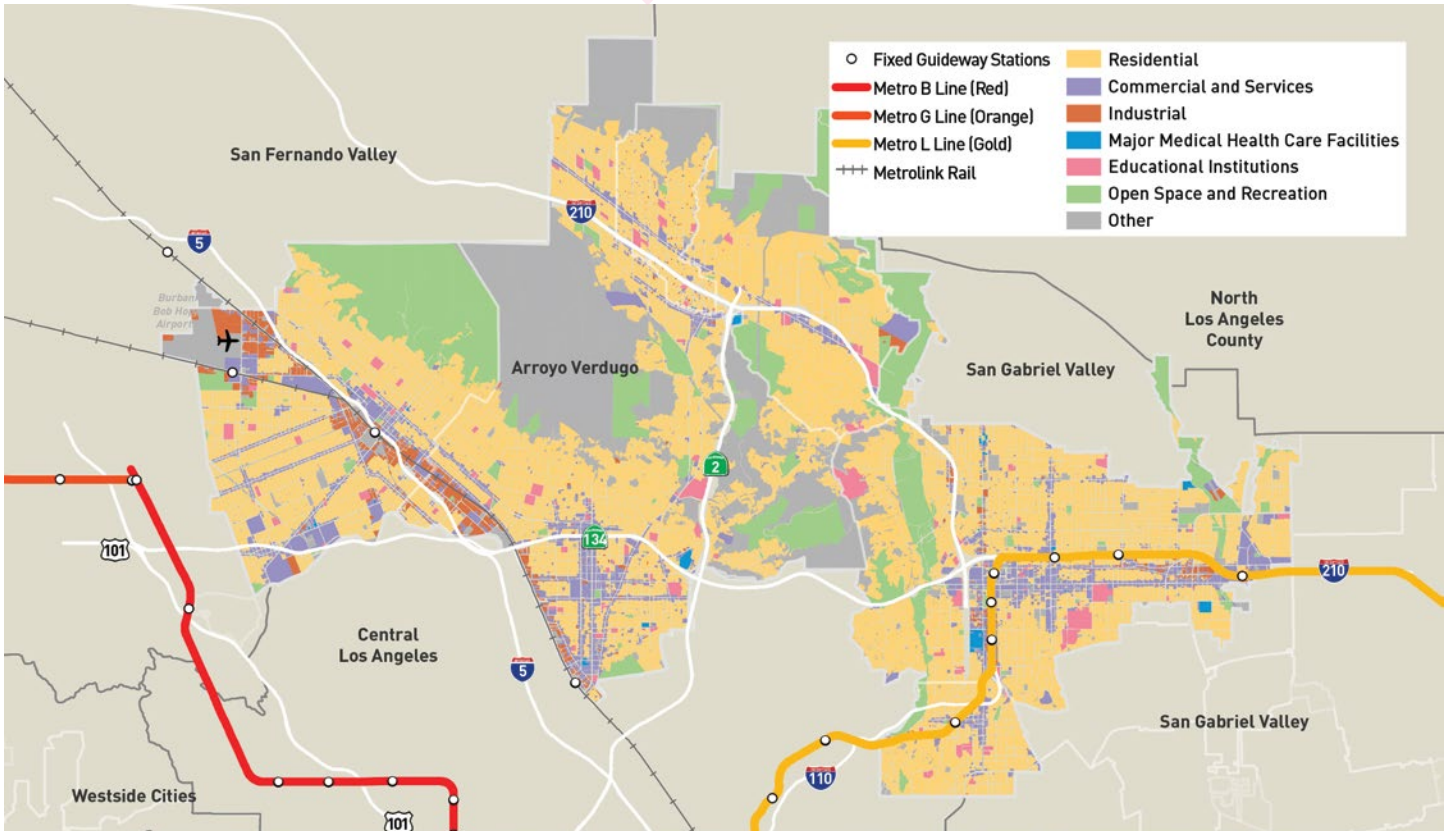
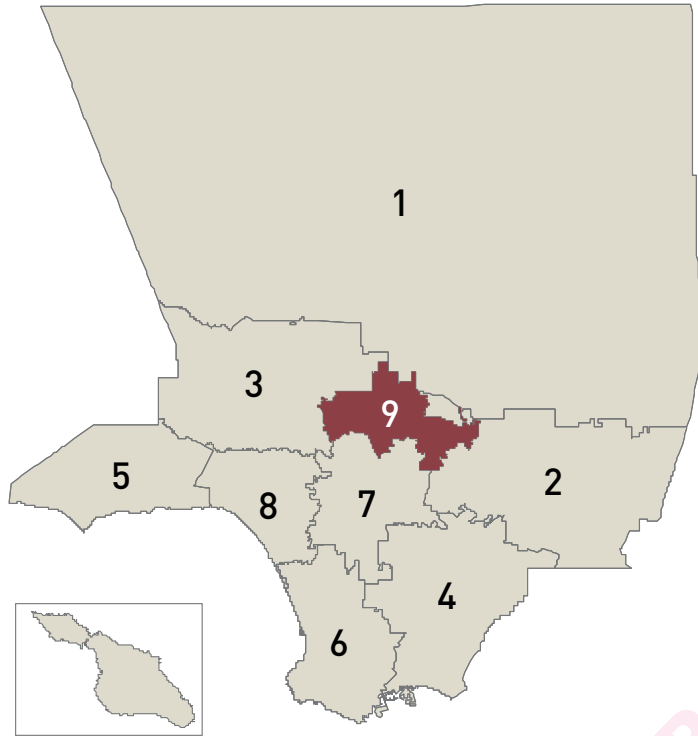


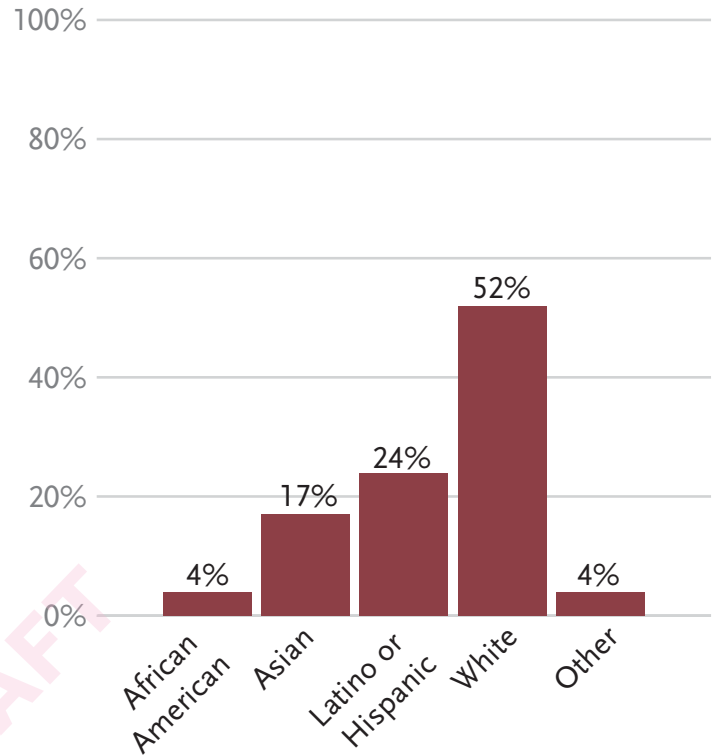
Figure 66

Arroyo Verdugo Summary Demographics

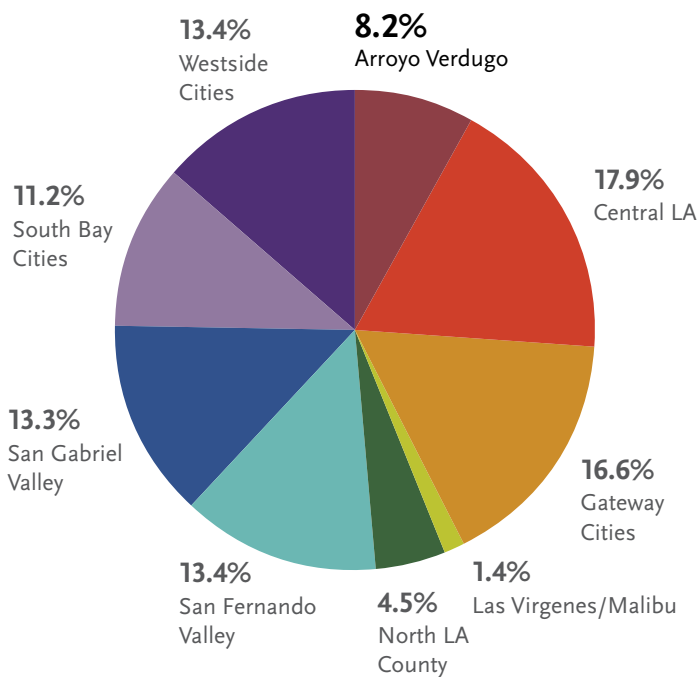
Total Area 87 Square Miles, Rank 9th
(Out of 9 Subregions)



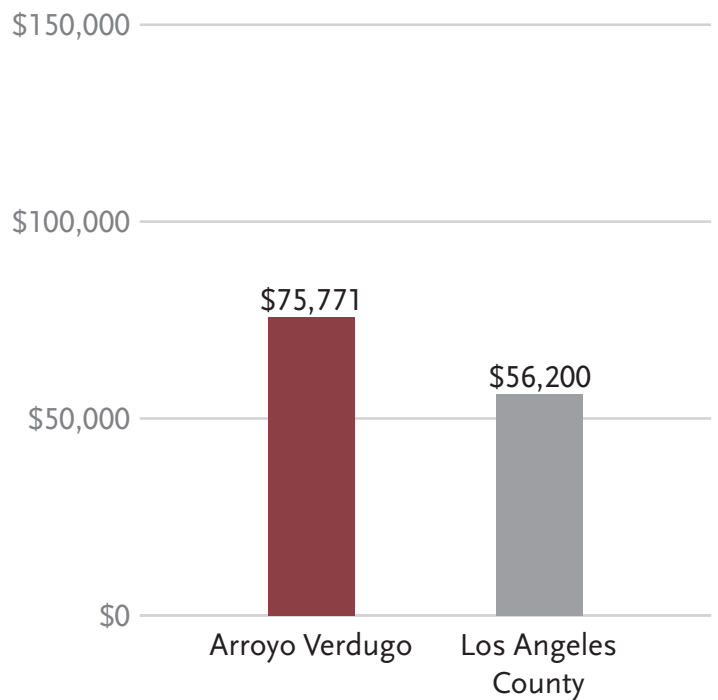
Total Population 509,273 People, Rank 8th



Total Employment 362,301 Jobs, Rank 7th



Median Household Income \$75,771 Average MHI, Rank 4th



Central Los Angeles

The Central Los Angeles subregion encompasses many communities in the City of Los Angeles including Atwater Village, Baldwin Hills, Boyle Heights, Central City, Chinatown, Eagle Rock, Echo Park, El Sereno, Glassell Park, Hancock Park, Highland Park, Hollywood, Hollywood Hills, Koreatown, Leimert Park, Little Tokyo, Arts District, Miracle Mile, Mid-City, Mt. Washington, Silver Lake, South Park, University Park, West Adams, Wilshire Center and portions of South-Los Angeles. The subregion also includes unincorporated areas of East Los Angeles, Ladera Heights, and View Park-Windsor Hills.

Major Transportation Facilities

A total of eight freeways and two busways pass through the subregion. They include Harbor Freeway (I-110), Glendale Freeway (SR-2), Golden State/Santa Ana Freeway (I-5), Santa Monica/San Bernardino Freeway (I-10), Pomona Freeway (SR-60), Ventura Freeway (SR-134), Hollywood Freeway (US-101), and Long Beach Freeway (I-710). The El Monte Busway runs along the San Bernardino Freeway's median and terminates at Alameda St. The Harbor Transitway runs along the Harbor Freeway's median and terminates at Adams Bl.

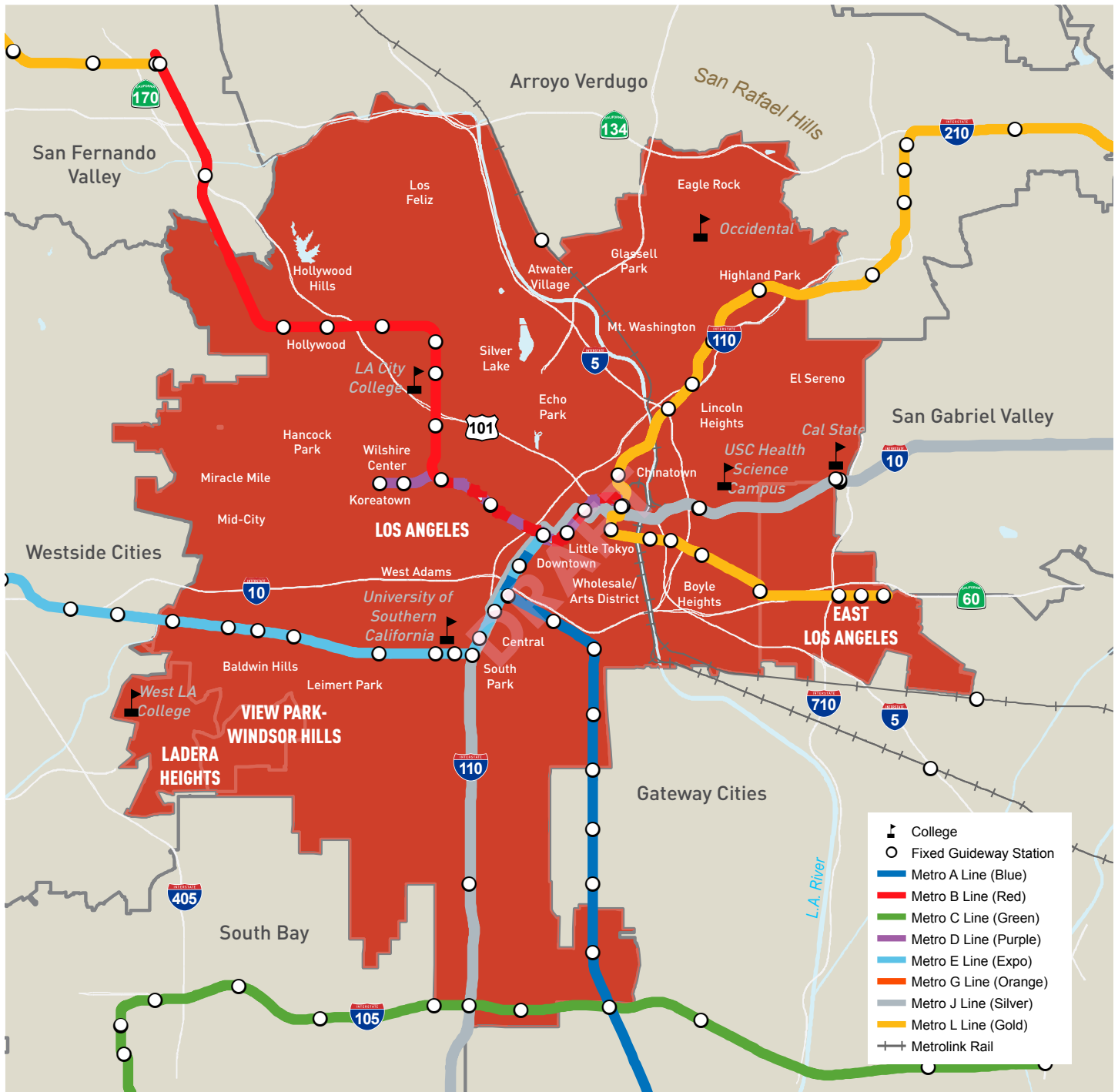
Central Los Angeles is served by most Metro Rail lines, including the B (Red) Line, D (Purple) Line, and L (Gold) Line, all converging upon Union Station. In addition, A (Blue) Line and E (Expo) Line meet nearby at the 7th Street/Metro Center station. At the southern edge of Central Los Angeles, the C (Green) Line connects to the A (Blue) Line. Union Station also serves as the major hub for Metrolink commuter rail service including the 91/Perris Valley Line, Antelope Valley Line, Orange County Line, Riverside Line, San Bernardino Line, and Ventura County Line as well as the Amtrak Pacific Surfliner line.

Ten municipal bus operators serve the Central Subregion, including Metro, Antelope Valley Transit, Foothill Transit, Gardena Municipal Bus Lines, LADOT (Dash and Commuter Express), Montebello Municipal Bus Lines, Orange County Transportation Authority (OCTA), Santa Clarita Transit, Santa Monica Municipal Bus Lines, and Torrance Transit. Currently, Metro operates four Metro Rapid lines within the Central Area (Wilshire Bl/Whittier Bl, South Broadway, Vermont Av and Florence Av). The road infrastructure is built-out and cannot accommodate more road capacity without adverse community impacts.

Land Use and Demographics

Central Los Angeles covers approximately 138 square miles. Roughly 15 percent is designated for commercial/industrial land use and residential land use covers approximately

Figure 67
CENTRAL LOS ANGELES



40 percent of the subregion. View Park-Windsor Hills has the highest percentage of residential land use, but 10 persons per acre population density. The highest population density is located in the East Los Angeles community. The City of Los Angeles has the largest area for industrial/commercial use and the highest employment density in the subregion.

Higher trip and population density is located in the areas of Hollywood, Echo Park, Koreatown, Silver Lake, Little Armenia, Downtown Los Angeles, and the Fashion District. Population densities tend to cluster around Metro’s Red, Purple, Blue, Silver, and the southern portion of the Gold Line (near the industrial/residential interface of East LA and Boyle Heights). Employment density is clustered in areas between Hollywood and Downtown Los Angeles. Downtown Los Angeles has the highest trip density areas in the subregion.

There are many entertainment attractions located in the subregion including the Hollywood Walk of Fame, L.A. Live, Orpheum Theatre, and Griffith Park/Observatory. The region also has several major sports facilities including the Coliseum, L.A. where the L.A. Rams and USC Trojans play, the Chavez Ravine, home to the Dodgers, and the Staples Center, home to the L.A. Lakers. The symbolic landmark Hollywood sign can be found on Mount Lee and is often viewed by thousands of daily visitors from Griffith Park Observatory. Downtown Los Angeles is the County’s largest employment district, and over the past decade, the site of a considerable expansion of residential, entertainment, and retail development.

Central Los Angeles is also home to several colleges and universities including the University of Southern California, Occidental College and Cal State Los Angeles. In addition, the medical complexes include Kaiser Permanente Los Angeles Medical Center, Childrens Hospital, Hollywood Presbyterian Medical Center, Los Angeles County + USC Medical Center, and USC Keck Hospital.

Central Los Angeles is the focal point of the region’s transportation system. The subregion ranks 2nd in total population, 1st in total employment, and 1st in total daily trips. The population is predominately Hispanic or Latino and has the lowest average median household income in the County. The subregion contains a diverse land use pattern that includes the County’s heaviest concentration of commercial and government offices, major industrial areas along the Los Angeles River, the most densely populated residential communities in the region, and many of the region’s recreational and cultural facilities.

Major Projects and Programs

The major regional transit projects with initial phases to be completed by the 2028 Olympics include the West Santa Ana Branch Transit Corridor connecting Downtown Los Angeles to the City of Artesia, Vermont Transit Corridor, a proposed BRT along 12.5 miles of Vermont Avenue. The LA River Path – Central LA, an 8-mile path between the Elysian Valley and Maywood through Downtown Los Angeles is anticipated to open between 2026 – 2027. Both the LA Streetscape Enhancement and Great Streets Program and the Public Transit State of Good Repair Program are allocated more than \$400 million in investment in the Central Subregion.

Figure 68

Central Los Angeles Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	West Santa Ana Branch Transit Corridor Phase 1 \$1.25 B (2028) and phase 2, \$5.06 B (2041), (\$6.31 B total cost)
	LA River Path – Central LA \$365 M (2026 – 2027)
	Vermont Transit Corridor \$524 M (2028)
	Crenshaw Northern Extension \$4.74 B (2047)
	Historic Downtown Streetcar \$581 M (2057)
Multi-year Subregional Programs (in 2015 \$)	Active Transportation, First/Last Mile and Mobility Hubs \$215 M (Start Date FY 2018)
	Los Angeles Safe Routes to School Initiative \$250 M (Start Date FY 2033)
	Bus Rapid Transit and First/Last Mile Solutions (e.g., DASH) \$250 M (Start Date FY 2048)
	Freeway Interchange and Operational Improvements \$195 M (Start Date FY 2048)
	LA Streetscape Enhancement and Great Streets Program \$450 M (Start Date FY 2048)
	Public Transit State of Good Repair Program \$402 M (Start Date FY 2048)
	Traffic Congestion Relief/Signal Synchronization \$50 M (Start Date FY 2048)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_Central_LA.pdf

Figure 69
CENTRAL LOS ANGELES DAILY TRIPS

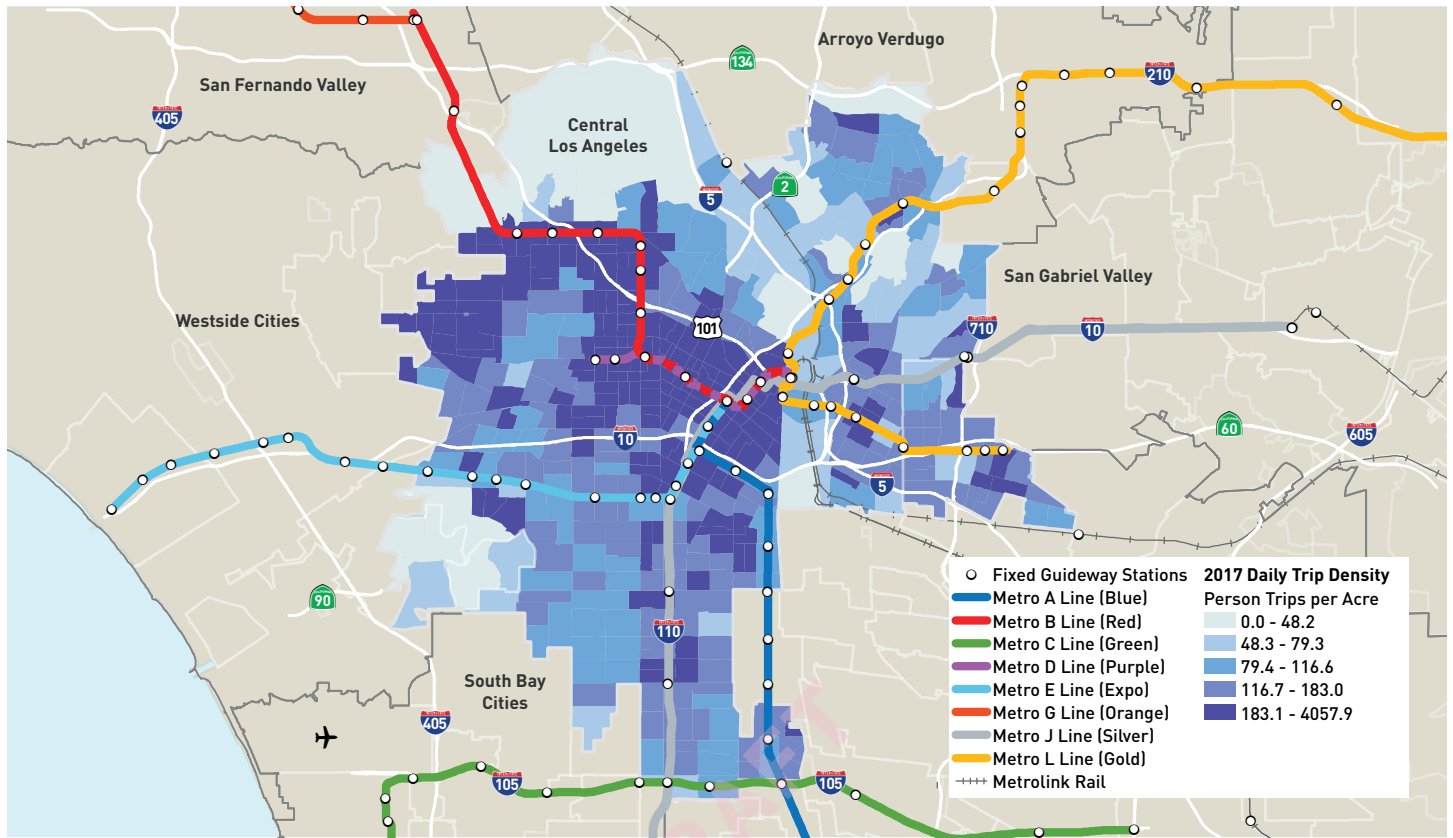


Figure 70
CENTRAL LOS ANGELES EMPLOYMENT DENSITY

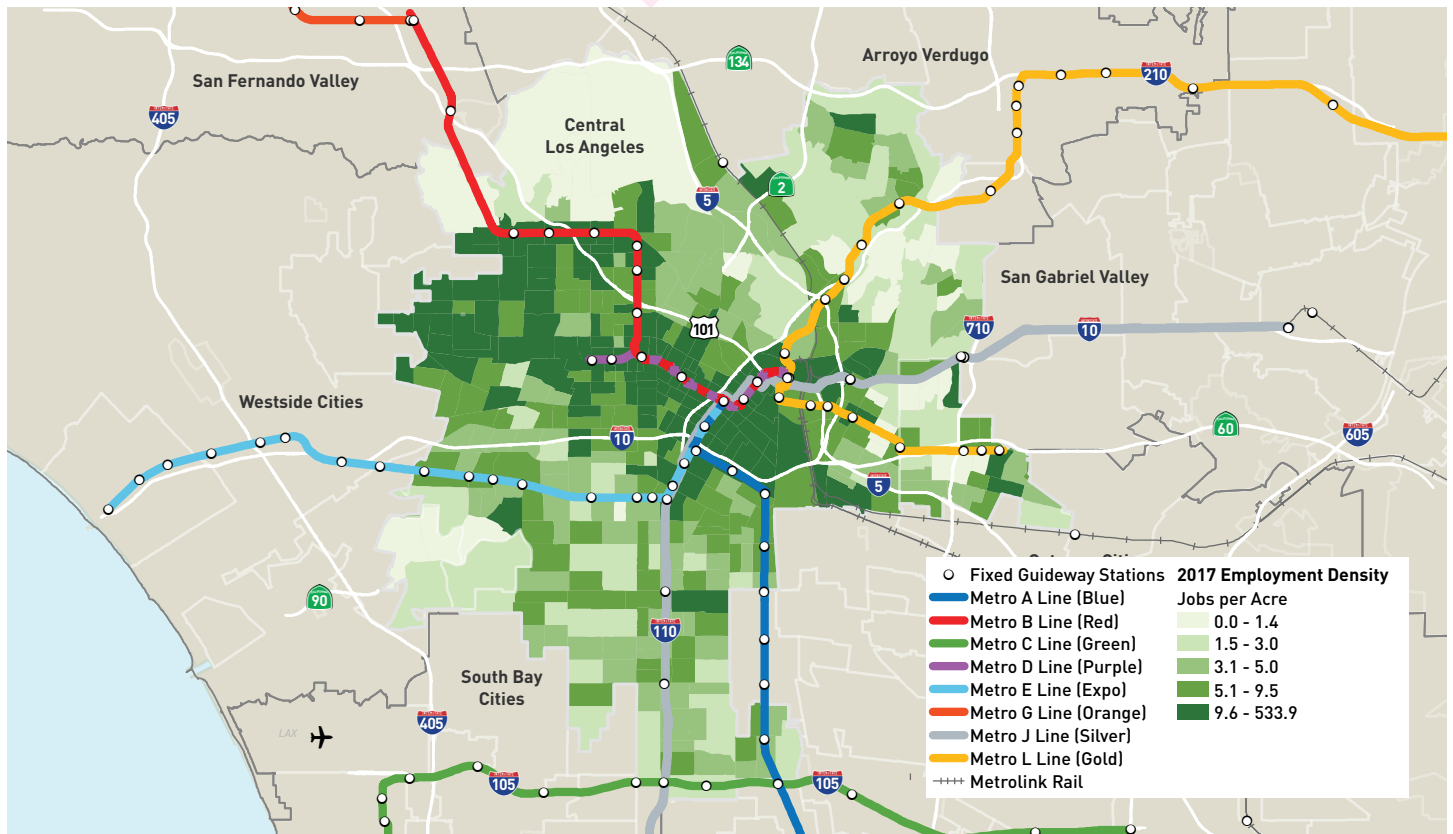


Figure 71

CENTRAL LOS ANGELES POPULATION DENSITY

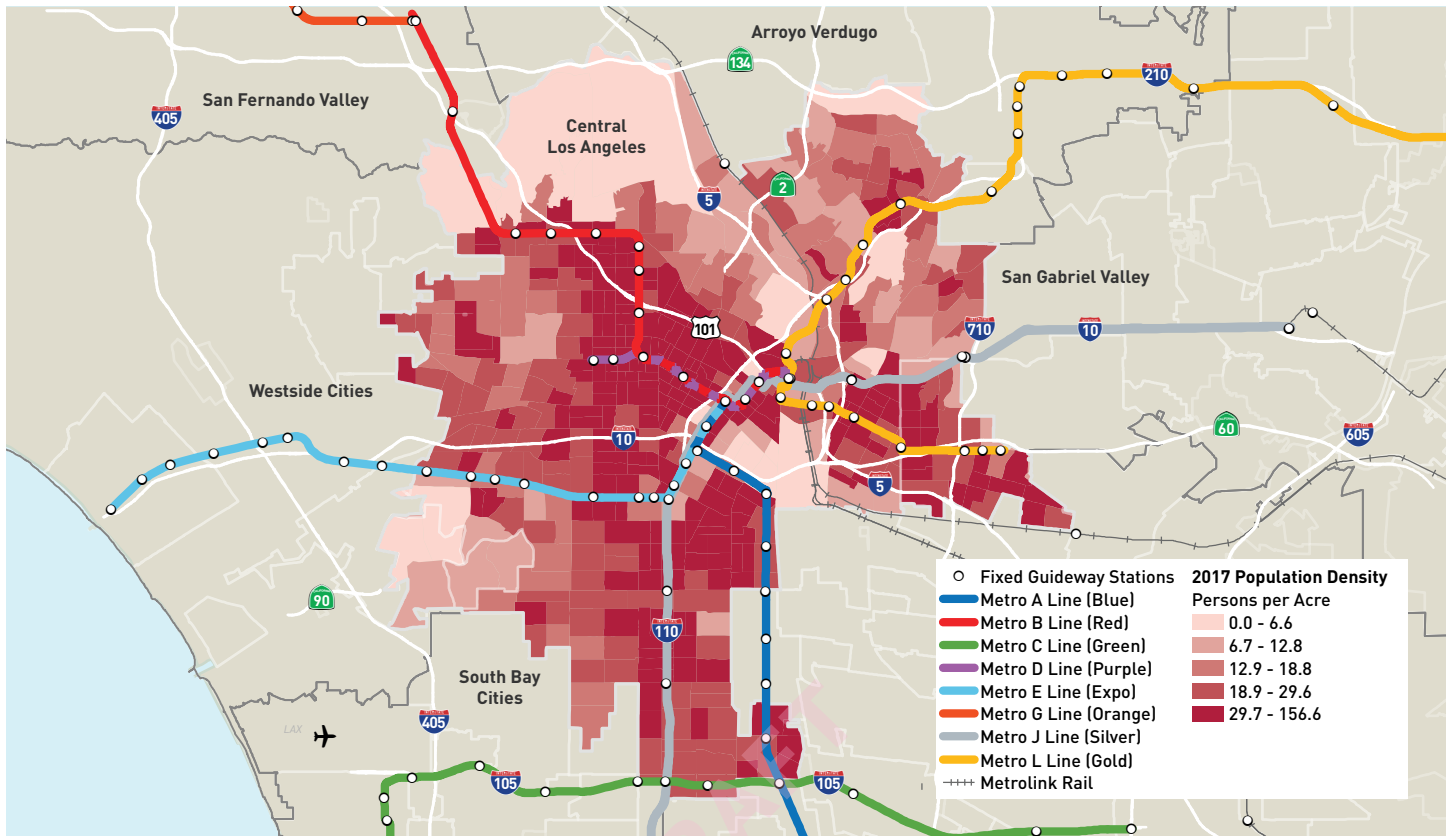


Figure 72

CENTRAL LOS ANGELES LAND USE

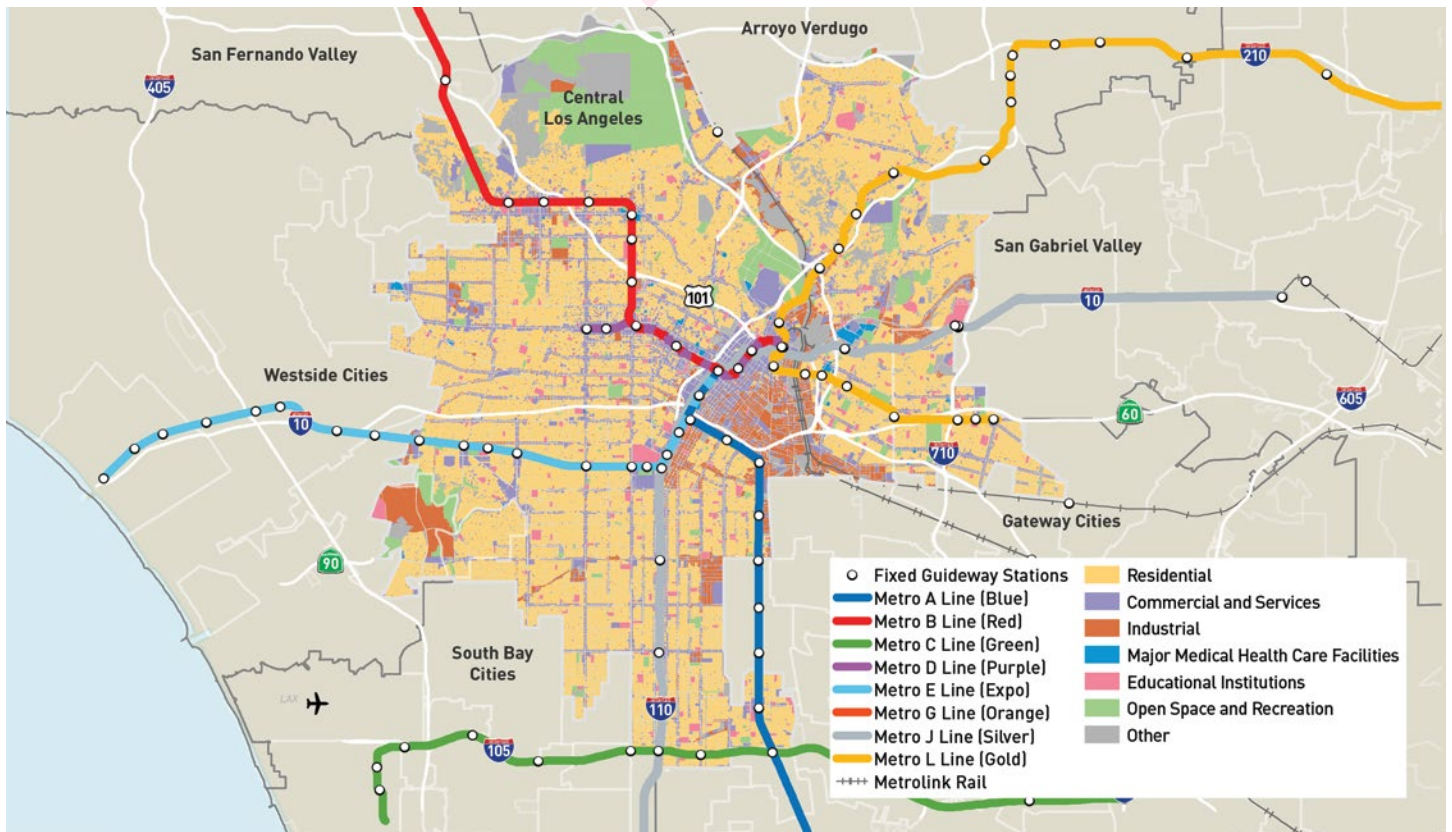


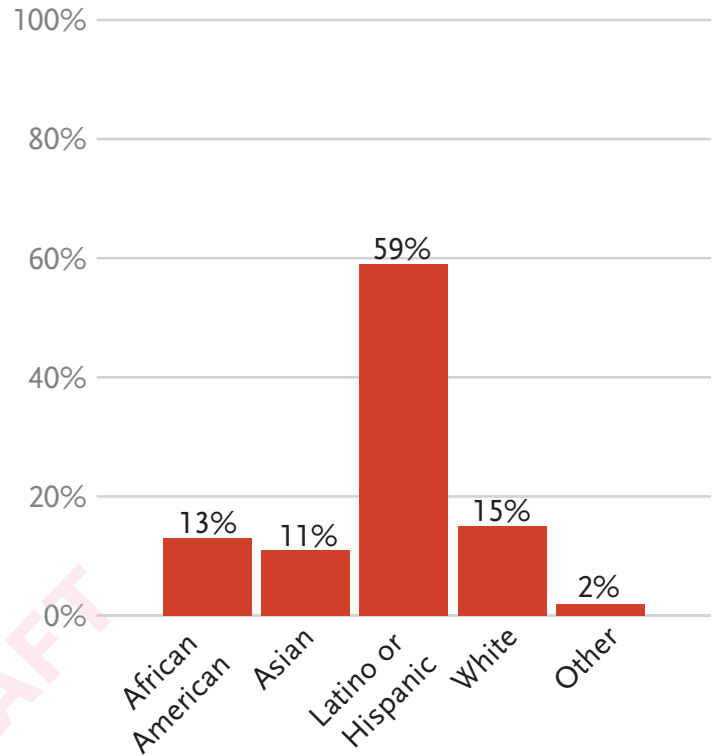
Figure 73

Central Los Angeles Summary Demographics

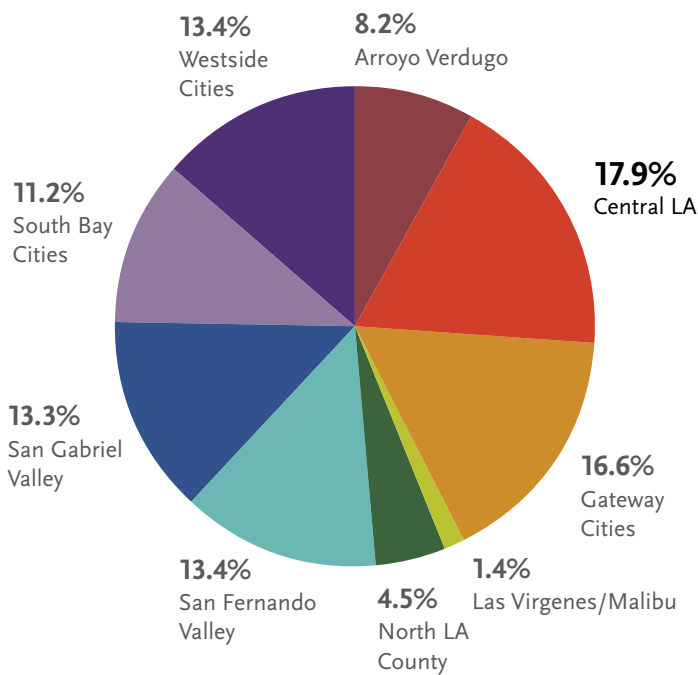
Total Area 138 Square Miles, Rank 7th
(Out of 9 Subregions)



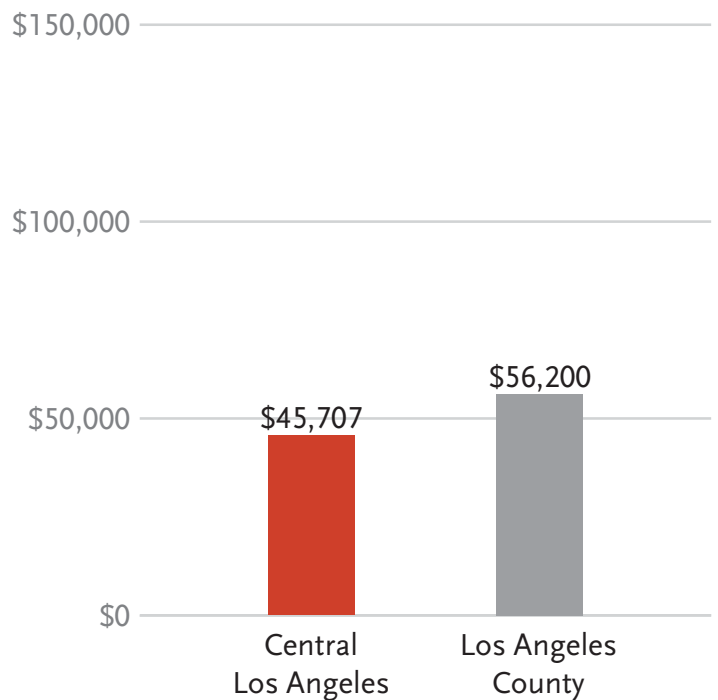
Total Population 1,910,621 People, Rank 2nd



Total Employment 789,312 Jobs, Rank 1st



Median Household Income \$45,707 Average MHI, Rank 9th



Gateway Cities

The Gateway Cities Subregion include Artesia, Avalon, Bell, Bell Gardens, Bellflower, Cerritos, Commerce, Compton, Cudahy, Downey, Hawaiian Gardens, Huntington Park, La Habra Heights, La Mirada, Lakewood, Long Beach, Lynwood, Maywood, Montebello, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, and Whittier. Gateway Cities also contains the following unincorporated communities of LA County: East Rancho Dominguez, East Whittier, Florence-Graham, Rose Hills, South Whittier, Walnut Park, West Rancho Dominguez, West Whittier-Los Nietos, and Willowbrook (portion).

Major Transportation Facilities

Several major east-west freeway corridors traverse this subregion. These include the Pomona Freeway (SR-60), Artesia Freeway (SR-91), and the Glenn Anderson Freeway (I-105). Santa Ana Freeway (I-5), San Diego Freeway (I-405), Long Beach Freeway (I-710), and San Gabriel River Freeway (I-605) are the major north-south corridors. An airport located in the City of Long Beach serves as a hub of corporate activity. The Port of Long Beach combined with the adjacent Port of Los Angeles constitutes the fifth busiest port in the world and the largest container port in the U.S. The ports are served by the Alameda Corridor, a 20-mile railway designed to speed cargo and containers from the ports to the rest of the country. The ports are also served by the freeway network described above.

The subregion is served by the Metro Blue and Green Light Rail lines as well as the Harbor Transitway running along the I-110. These major transit infrastructure investments help move people to the ports and other employment centers within the subregion.

The subregional bus system consists of Metro Gateway Cities Service Sector, Long Beach Transit, Norwalk Transit, Commerce, and Montebello Municipal Bus lines. In addition, many cities operate transit and dial-a-ride services, such as Cerritos on Wheels (COW) and La Mirada Dial-a-Ride. Metrolink's Orange County Line and the 91-Line provide commuter rail services with stops in Norwalk/Santa Fe Springs and the City of Commerce. Metrolink's Riverside Line provides commuter service with a stop in Montebello/Commerce.

Figure 74
GATEWAY CITIES



Land Use and Demographics

Gateway Cities covers approximately 311 square miles. Roughly 18 percent is designated for commercial/industrial land use and residential land use covers approximately 37 percent. Figure 79 shows the land use of cities within the subregion. The city of Maywood has the highest percentage of residential land use area while Santa Fe Springs and the city of Vernon contain the highest percentage of commercial/industrial areas.

Trip density and population density cluster in the northwest and southwest areas of the subregion as well as areas between I-710 Freeway and Metro Blue Line. Population densities are dispersed sporadically throughout the region, oftentimes surrounded by high employment density. Bellflower, Downey, Norwalk, Lynwood, Maywood, and Long Beach all have high population density. The city of Vernon has the highest employment density in this subregion. City of Commerce and Santa Fe Springs also have high employment densities with a high percentage of commercial/industrial land use.

Gateway Cities form the southeastern boundary of LA County. This subregion has an approximate resident population of 2 million people within 26 cities and unincorporated areas. Long Beach covers the largest area, ranks 7th in population density, and 5th in employment density within the subregion. Hawaiian Gardens is the smallest city in the subregion, ranking 8th in population density, and 17th in employment density. The subregion also contains industrial-oriented cities, such as Vernon and Commerce; traditional residential suburbs, such as La Habra Heights; and a broad spectrum of balanced communities that fall between. Hospitals in the subregion include Kaiser Permanente Downey and Veteran Affairs Long Beach.

Gateway Cities is the third largest subregion in the County by area, ranks first in total population, second in total employment, and second in total daily trips. The subregion is predominately Hispanic or Latino and has the second lowest average median household income of all the subregions. The region also includes Catalina Island, a sparsely populated destination for tourists and visitors. Universities include Cal State Long Beach.

Major Projects and Programs

In the coming years the Gateway Cities will see initial investment in several major transit projects and new ExpressLanes on I-105. In addition to the West Santa Ana Transit Corridor, the L line (Gold) and the C line (Green) have planned extensions. Investment to address I-605 “Hot Spot” improvements is the major subregional program.

Figure 75

Gateway Cities Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	West Santa Ana Branch Transit Corridor, \$1.25 B (2028) and \$5.06 B (2041), (\$6.31 B total cost)
	I-710 South Corridor Project phase 1, \$5.7 M and phase 2, \$1.51 M (2041) (\$7.21 B total cost)
	Gold Line Foothill Extension to Claremont \$1.57 B (2028)
	I-5 Corridor Improvements (I-605 to I-710) \$ 2.04 B (2042)
	C Line (Green) Eastern Extension (Norwalk) \$1.89 B (2052)
I-105 ExpressLane from I-405 to I-605 \$530 M (2025)	
Multi-year Subregional Programs (in 2015 \$)	Active transportation Program (Start Date FY 2018)
	I-605 Corridor “Hot Spot” Interchange Improvements \$1 B (\$1.2 B total cost) ¹ (Start Date FY 2018)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_Gateway.pdf

Figure 76

GATEWAY CITIES DAILY TRIPS

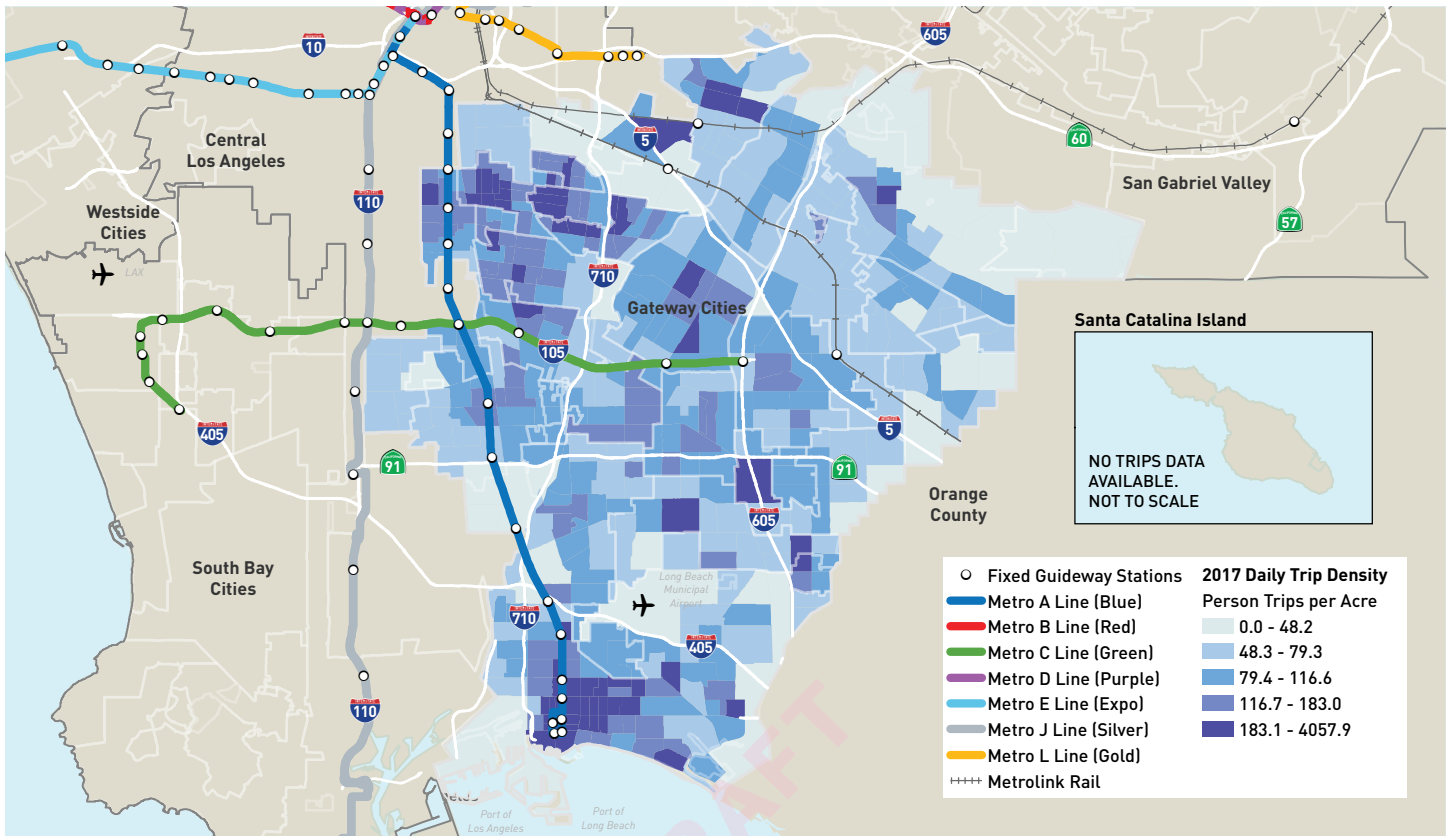


Figure 77

GATEWAY CITIES EMPLOYMENT DENSITY

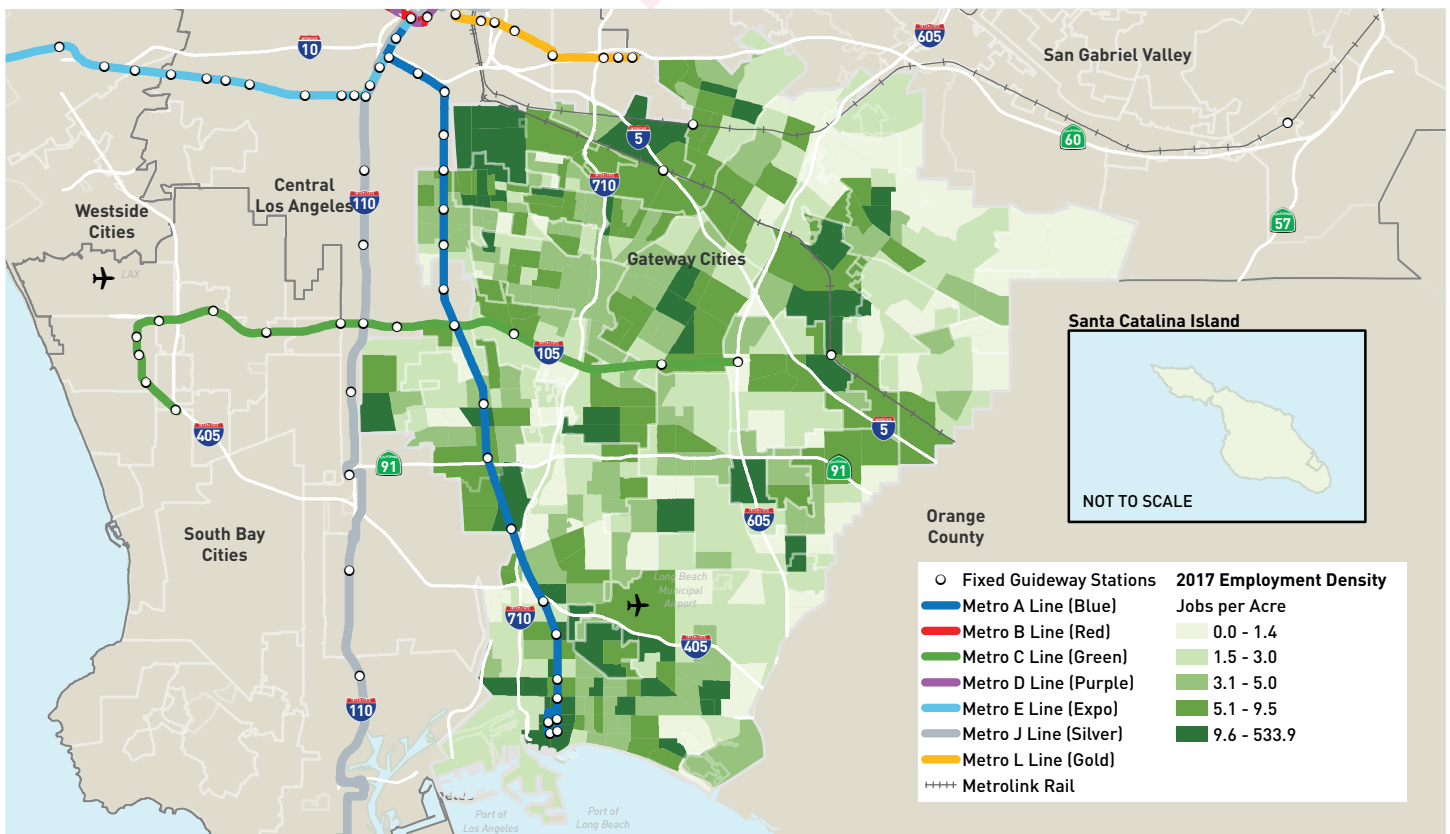


Figure 78

GATEWAY CITIES POPULATION DENSITY

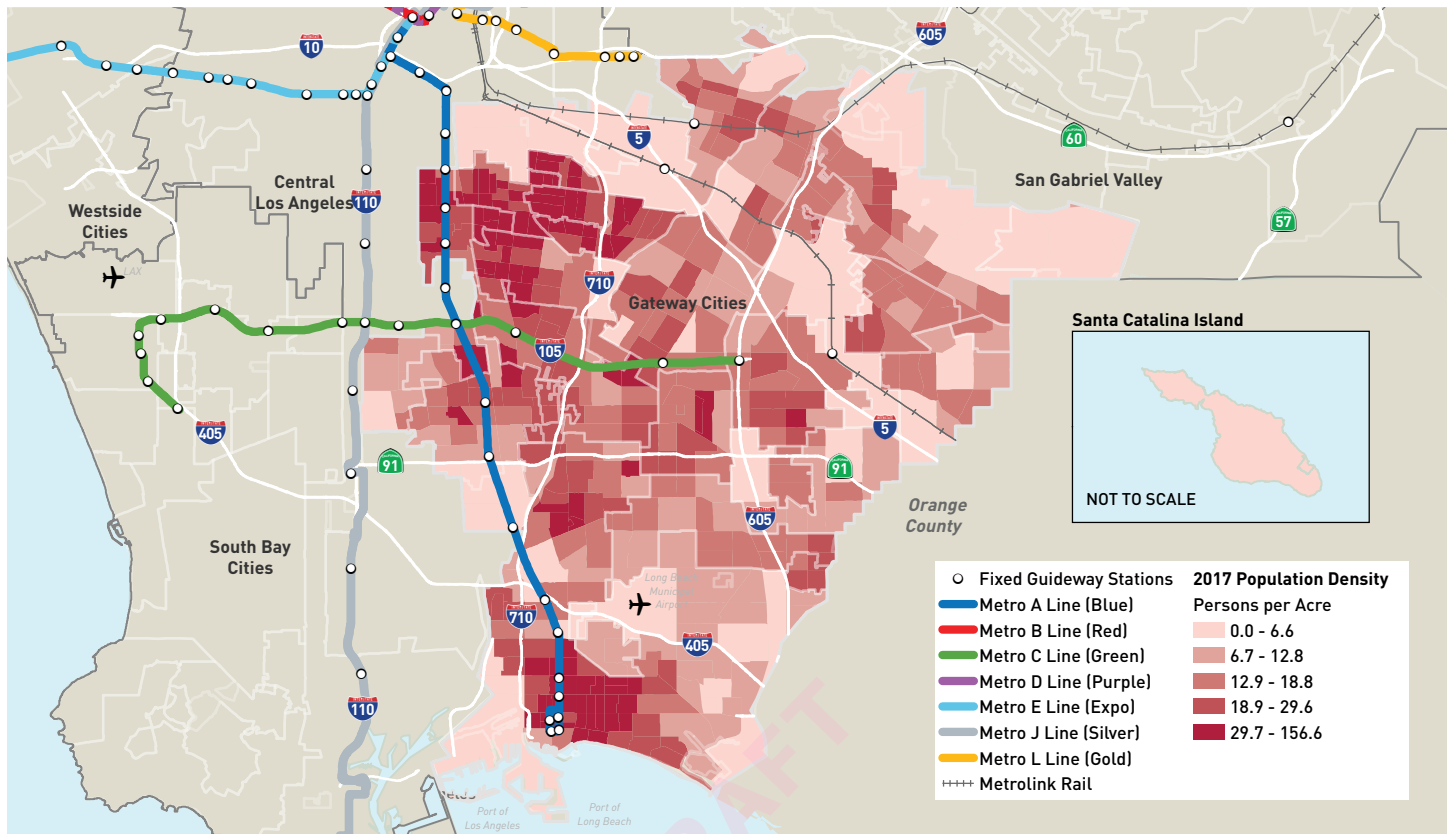


Figure 79

GATEWAY CITIES LAND USE

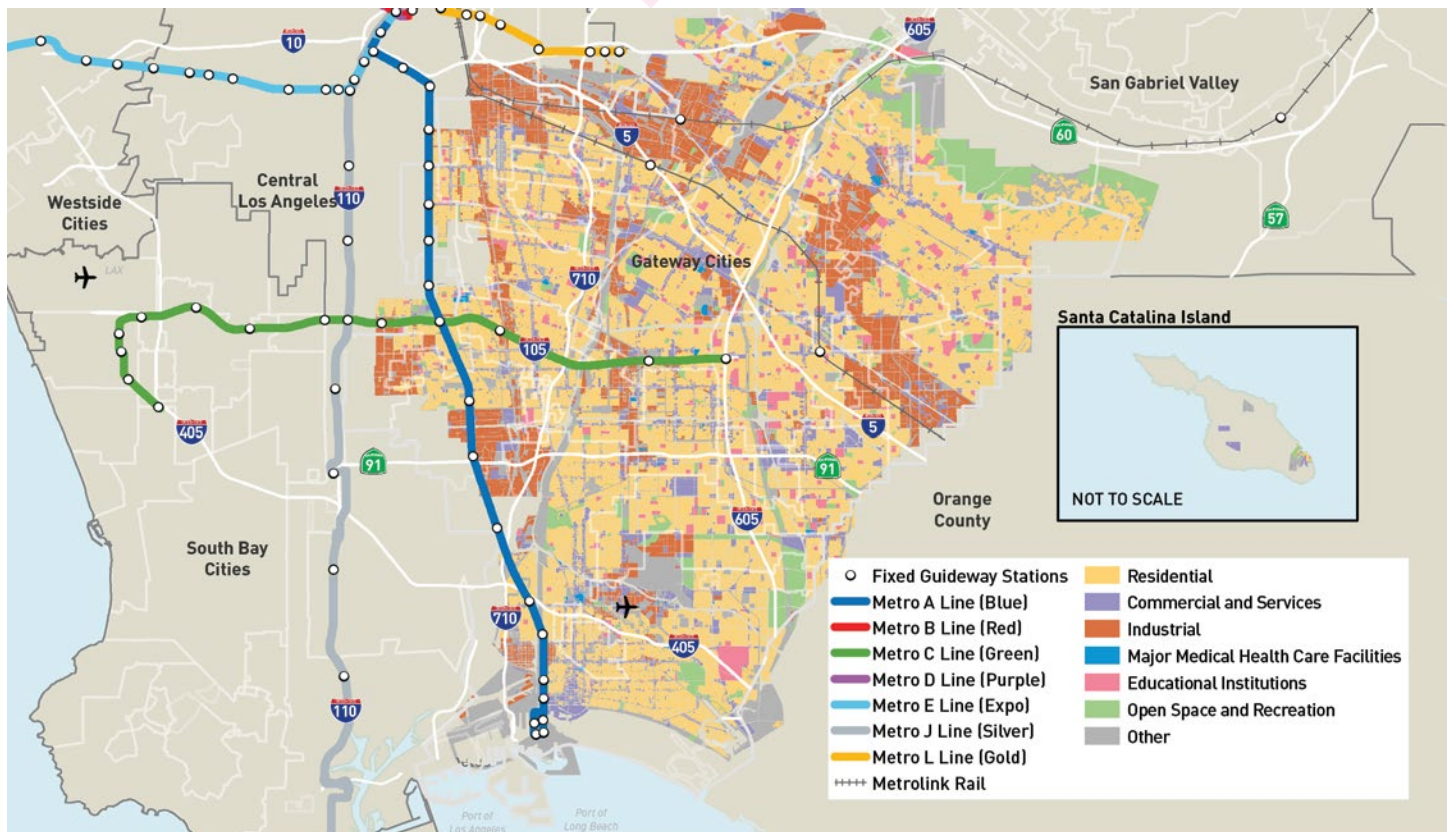


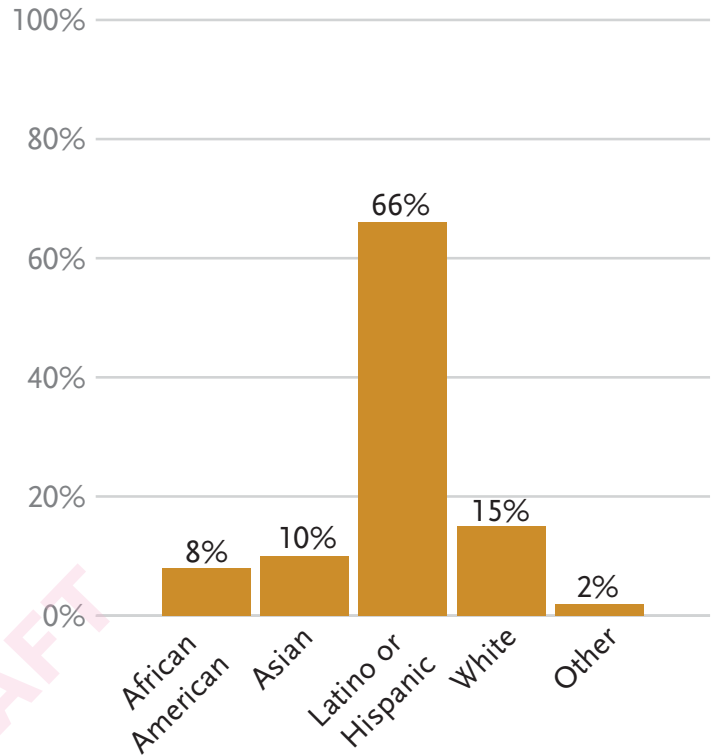
Figure 8o

Gateway Cities Summary Demographics

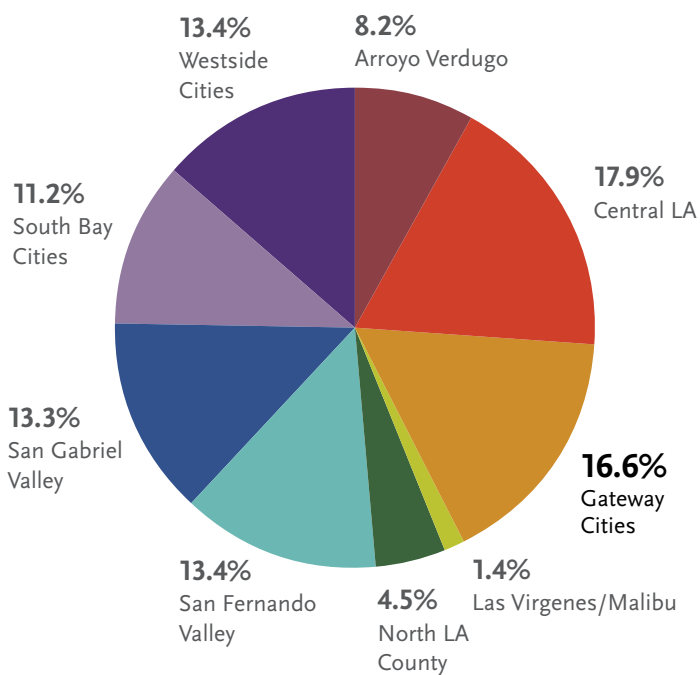
Total Area 235 Square Miles, Rank 4th
(Out of 9 Subregions)



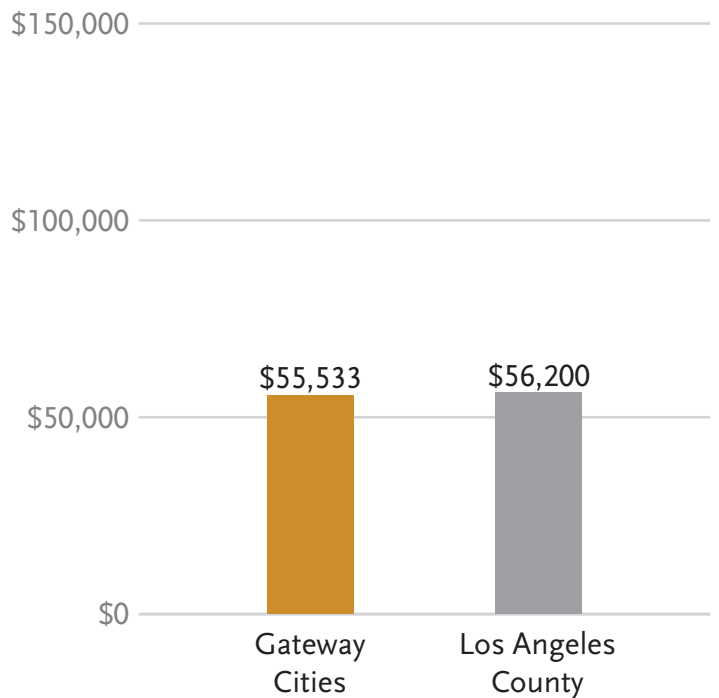
Total Population 1,979,441 People, Rank 1st



Total Employment 735,342 Jobs, Rank 2nd



Median Household Income \$55,533 Average MHI, Rank 8th



Las Virgenes/ Malibu

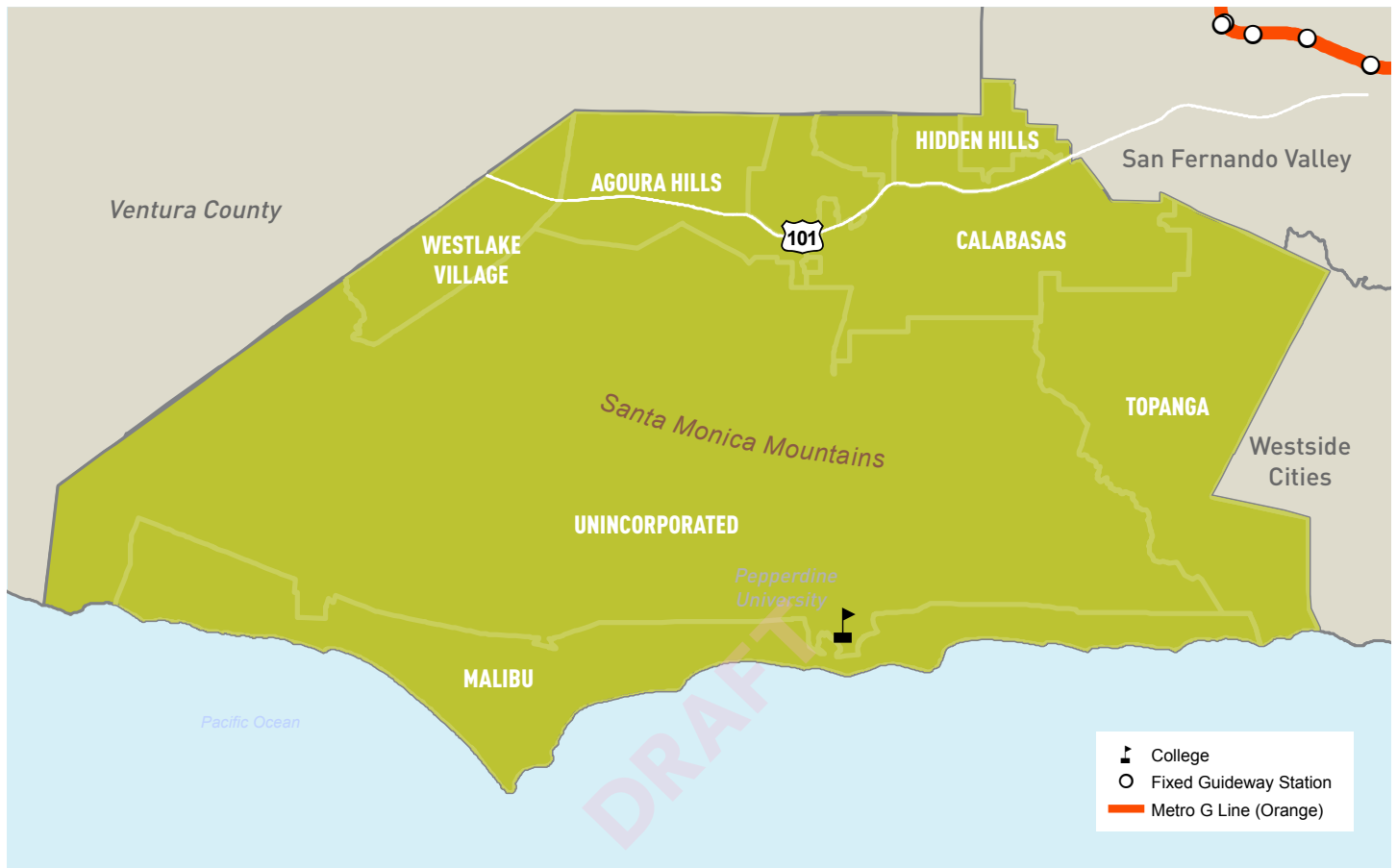
The Las Virgenes/Malibu subregion occupies the westernmost portion of LA County and includes Agoura Hills, Calabasas, Hidden Hills, Malibu and Westlake Village, and parts of unincorporated LA County.

Major Transportation Facilities

The US-101 is the subregion's dominant transportation corridor, around which most commercial/research park development and employment opportunities have clustered. This generally low-density area has a limited network of arterial roadways, of which Pacific Coast Highway (SR-1) is the most heavily traveled. A series of north-south arterials connect the two highways, which include SR-23, Kanan Dume/Kanan, Las Virgenes/Malibu Canyon Rd, and Topanga Canyon Bl (SR-27). Regional bus service is provided by Metro and LADOT. Calabasas runs a community shuttle while the other cities in the subregion operate dial-a-ride services. There is currently no rail service in the subregion.

The transportation system in the Las Virgenes/Malibu subregion has substantial capacity problems. As home to some of the nation's most-visited beaches and recreational sites, severe weekend and summertime traffic are frequent occurrences. Weekday traffic volumes have also grown as development and employment opportunities have extended into Ventura County. The reliance on two primary routes presents substantial challenges to this area and yields traffic delays, disruptions and unreliable service levels. Due to the region's topography, size, modest roadway network, and limited transportation alternatives, congestion has become commonplace. Bus service does not traverse the mountains in a north-south direction. This significantly reduces access to employment opportunities by day workers and access to Pepperdine University by students traveling from other areas of the region.

Figure 81
LAS VIRGENES/MALIBU



Land Use and Demographics

The area’s most prominent feature is the strikingly rugged Santa Monica Mountains, which divide this subregion. The Las Virgenes cities occupy the north-facing foothills and valleys adjacent to the Santa Monica Mountains State Park and National Recreation Area, and the city of Malibu sits in the south stretching 21 miles along the Pacific coast. The coastline is home to world-class beaches and surf breaks, which include Topanga Beach, Surfrider Beach, and Zuma Beach. Overlooking the Pacific Ocean is Pepperdine University, one of the nation’s top business and law schools.

Roughly two percent of the subregion is designated for commercial/industrial land use and residential land use covers approximately 15 percent. The largest area in the subregion is unincorporated and used for recreation/state parks. The Santa Monica Mountain Range extends east-west for roughly 40 miles, paralleling the north shore of Santa Monica Bay. Figure 86 shows the variety of land use for communities within the subregion. The City of Hidden Hills has the highest percentage of residential land use at 85 percent, but is also the smallest city in the subregion. It is followed by Malibu with 37 percent residential land use, and the largest city in the subregion.

Population and employment density in the subregion is relatively low. The higher concentrations of employment density are in the immediate area surrounding the US-101 where there is commercial and industrial land use. This subregion covers 162 square miles and is home to five cities and unincorporated areas. The subregion has the lowest total population, lowest total employment, and lowest total daily trips. The area is predominately non-Hispanic Whites and has the highest average median household income of all the subregions.

Major Projects and Programs

The subregion does not have any major planned projects. Highway efficiency is the region’s subregional program with the largest amount of funding.

Figure 82

Las Virgenes/Malibu Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	N/A
Multi-year Subregional Programs (in 2015 \$)	Active Transportation, Transit and Technology Program \$32 M (Start Date FY 2018) Highway Efficiency Program \$133 M (Start Date FY 2018) Modal Connectivity Program \$68 M (Start Date FY 2048) Traffic Congestion Relief and Improvement Program \$63 M (Start Date FY 2048)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_Malibu.pdf

Figure 83
LAS VIRGENES/MALIBU DAILY TRIPS

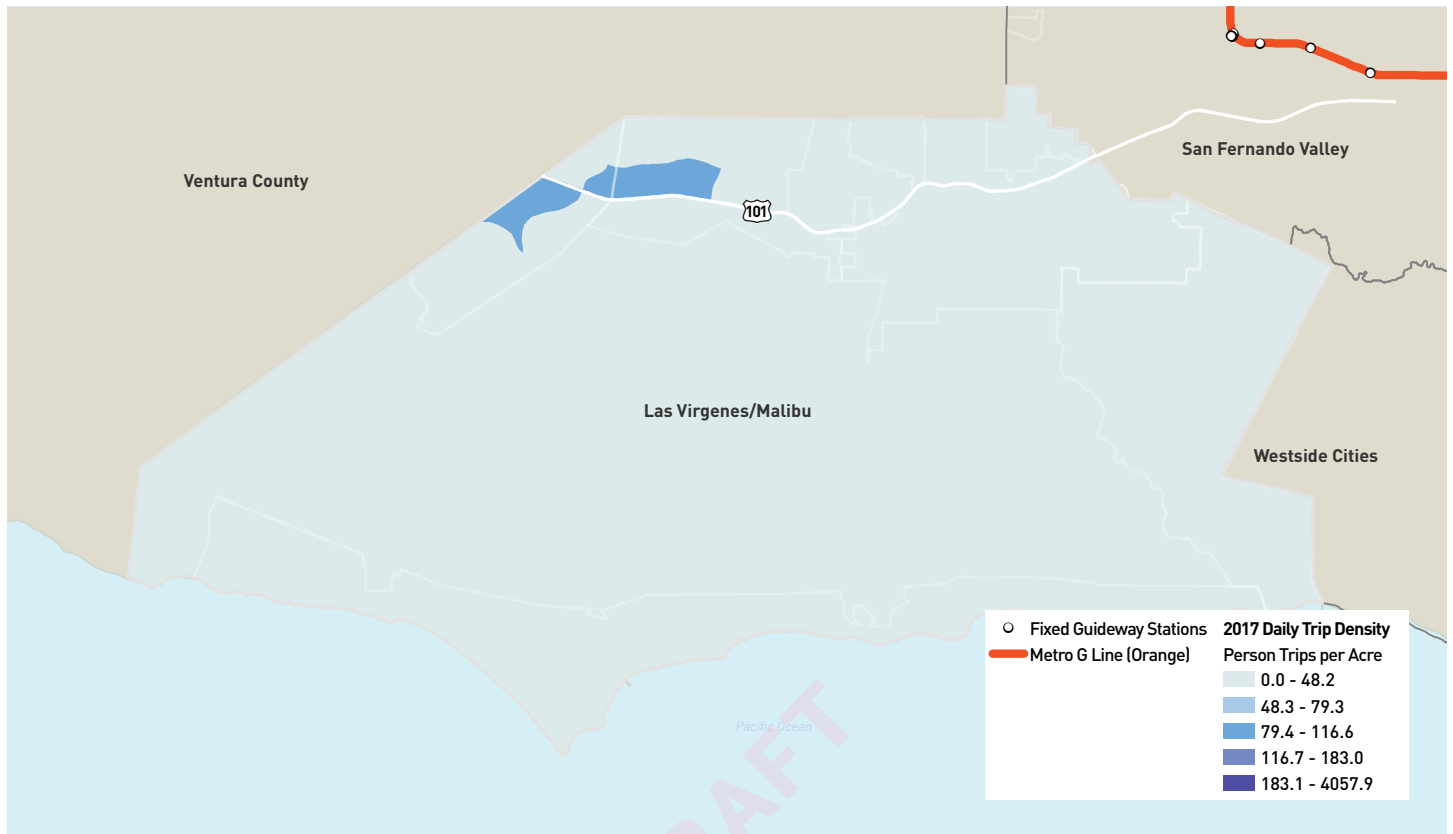


Figure 84
LAS VIRGENES/MALIBU EMPLOYMENT DENSITY

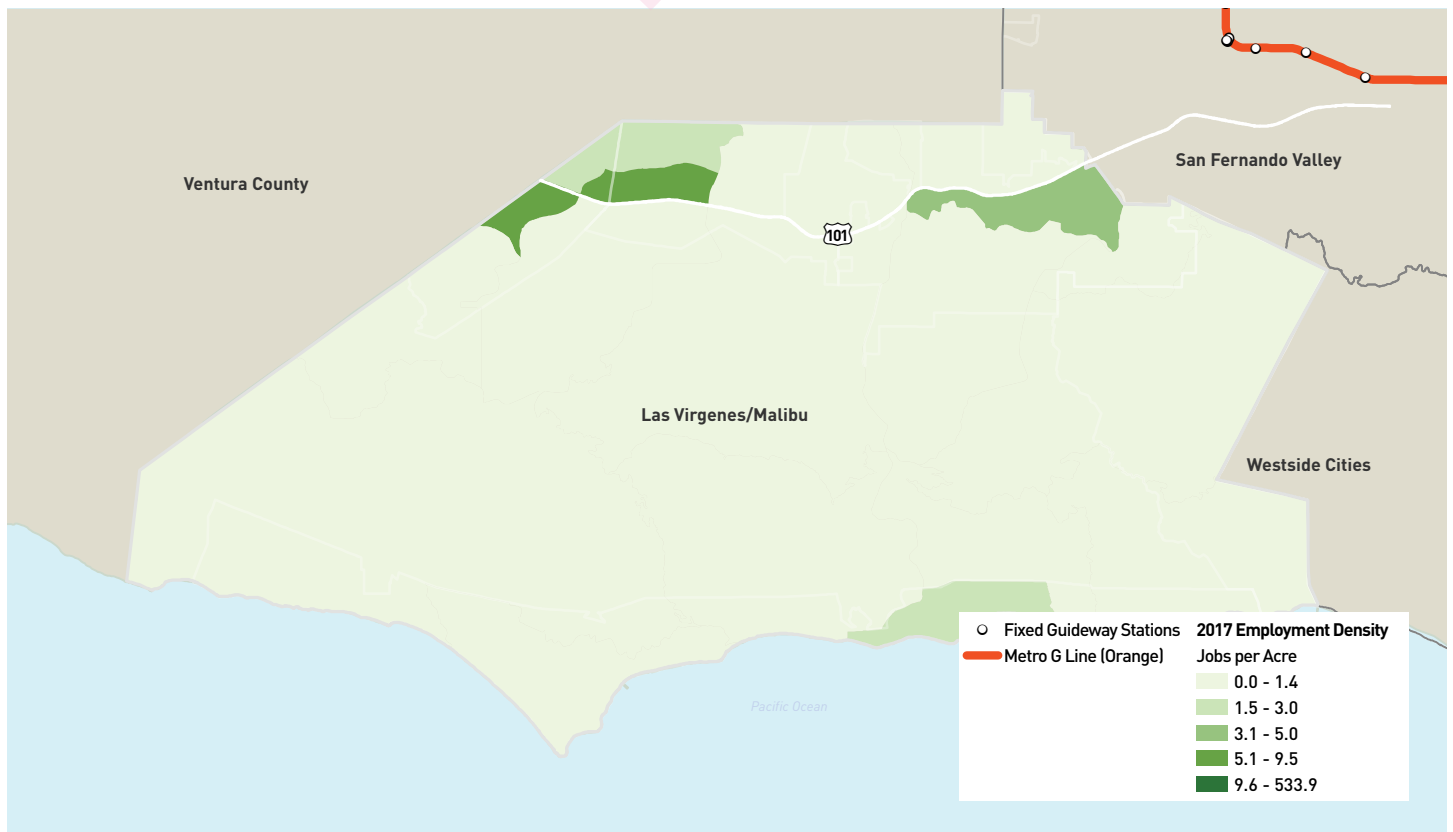


Figure 85

LAS VIRGENES/MALIBU POPULATION DENSITY

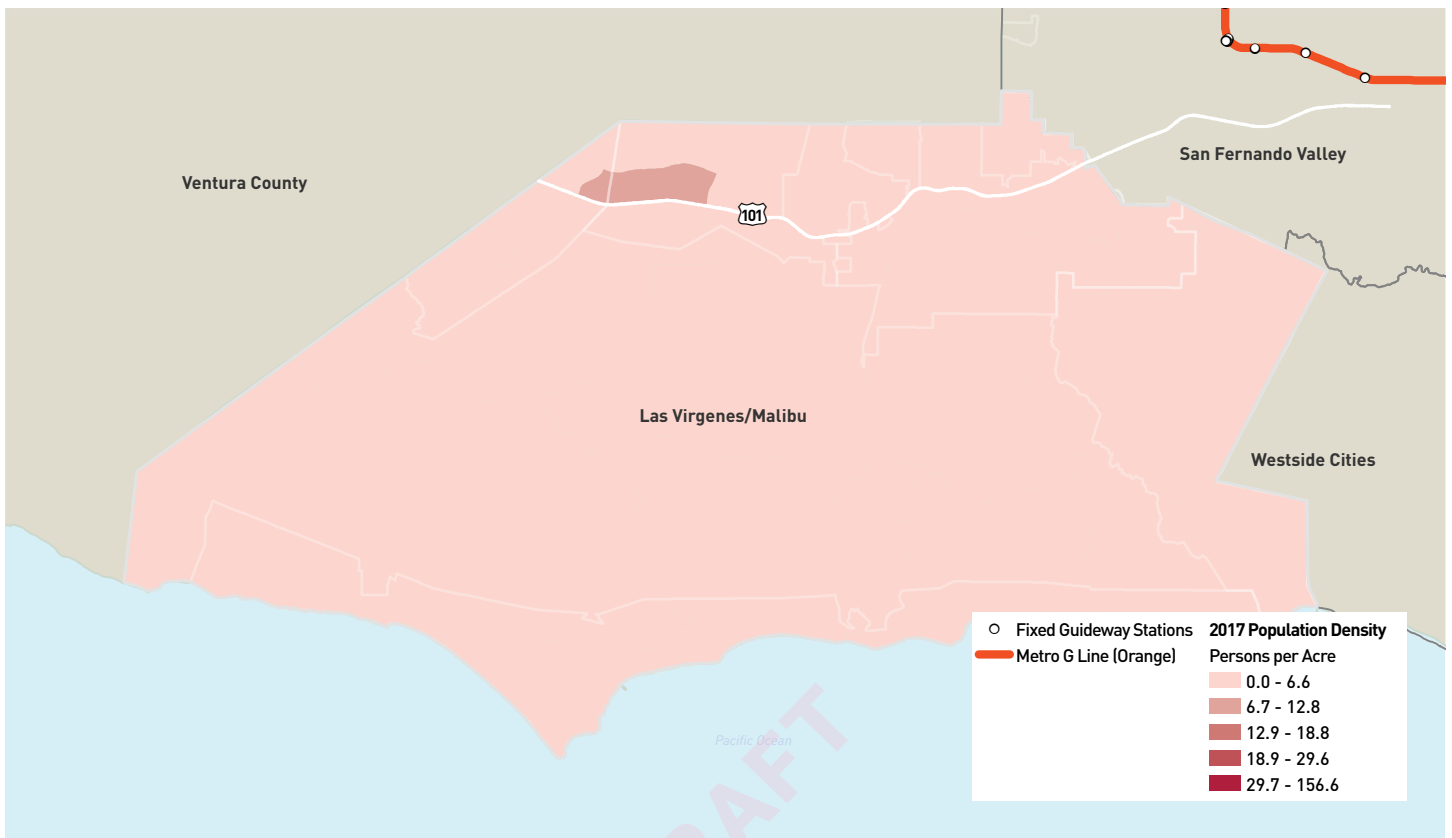


Figure 86

LAS VIRGENES/MALIBU LAND USE

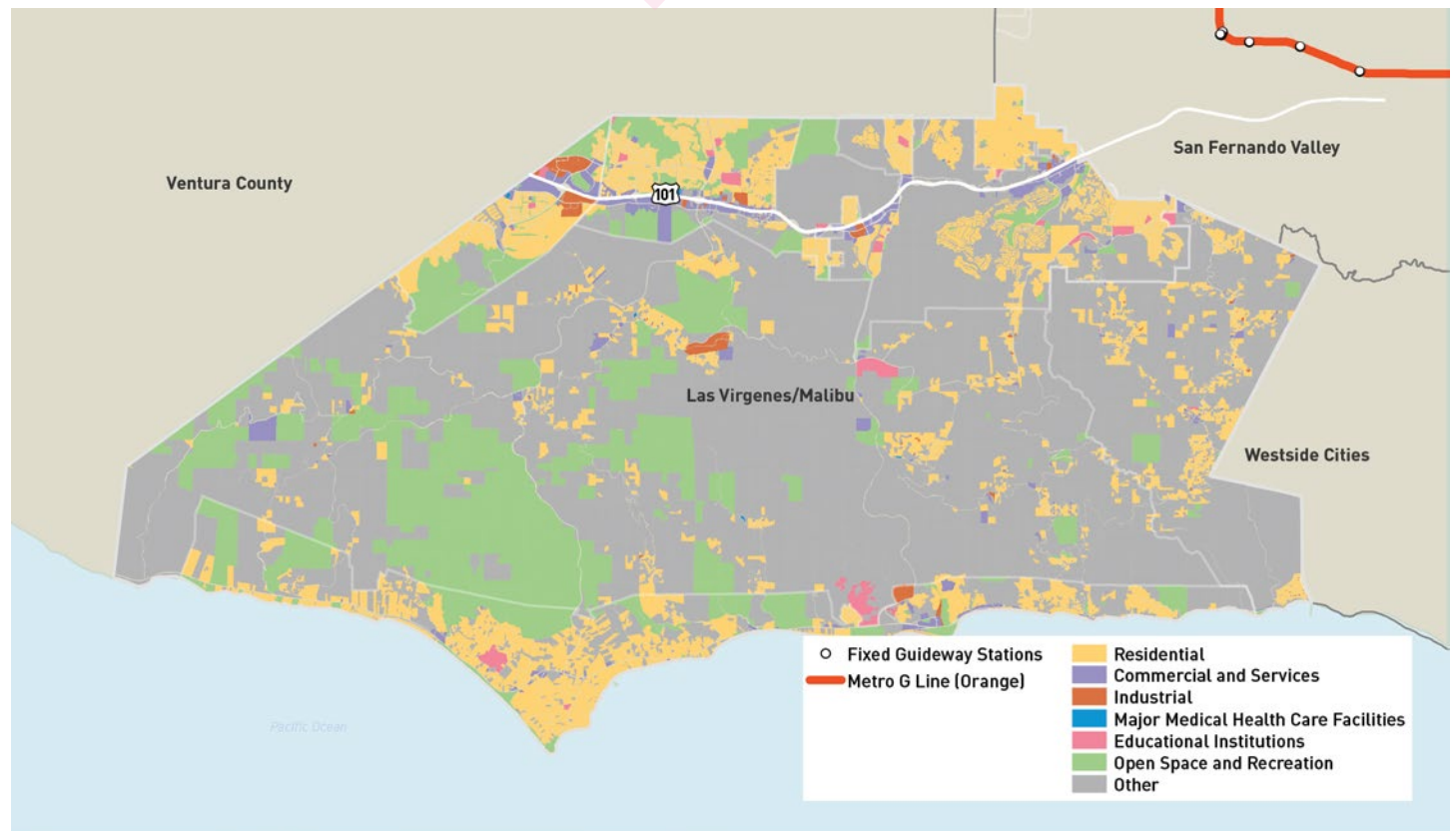
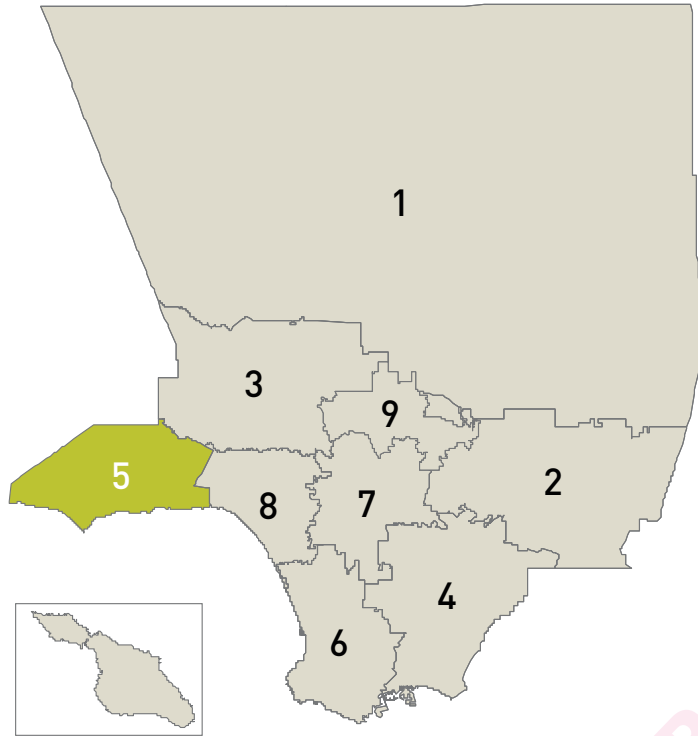


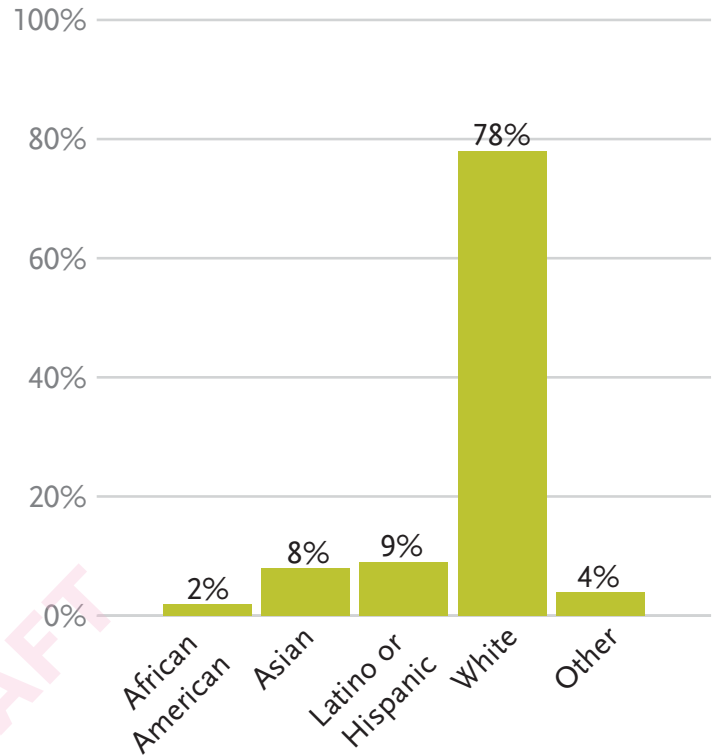
Figure 87

Las Virgenes/Malibu Summary Demographics

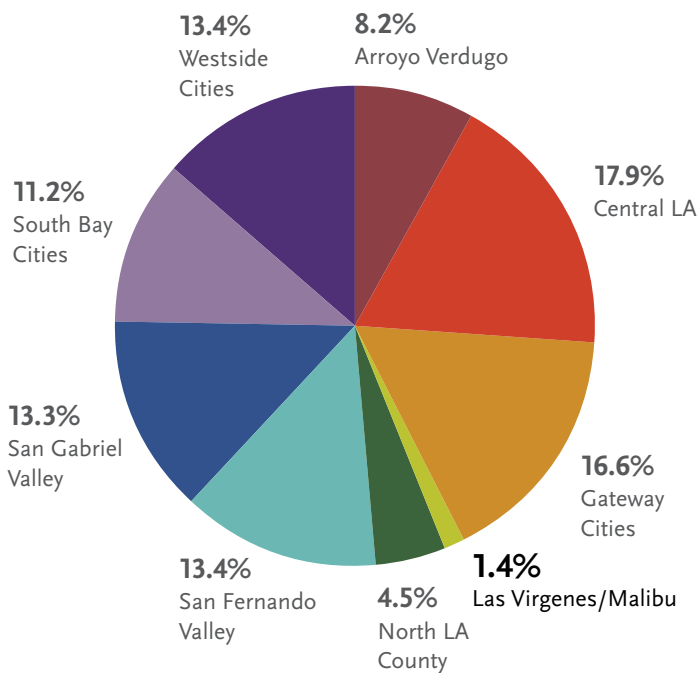
Total Area 162 Square Miles, Rank 5th
(Out of 9 Subregions)



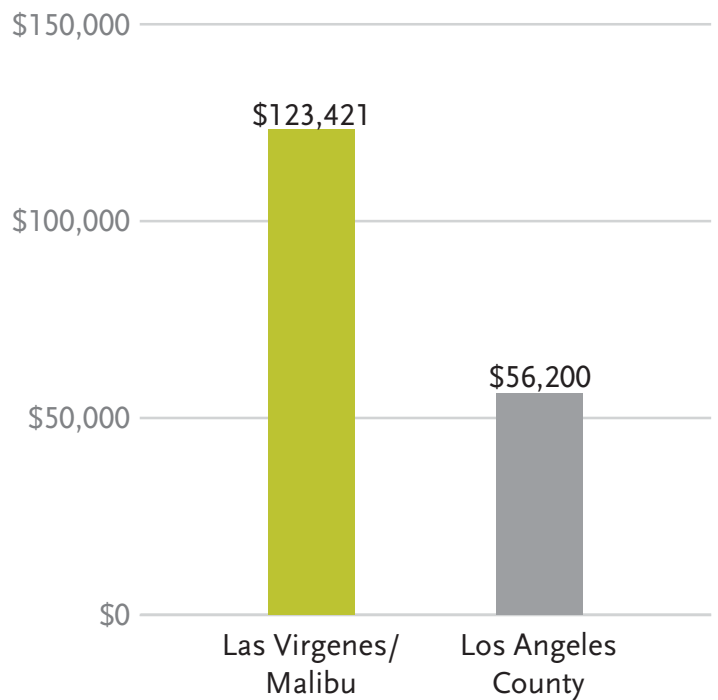
Total Population 84,282 People, Rank 9th



Total Employment 61,743 Jobs, Rank 9th



Median Household Income \$123,421 Average MHI, Rank 1st



North Los Angeles County

North Los Angeles County includes Lancaster, Palmdale, and Santa Clarita. North Los Angeles County subregion also encompasses the following unincorporated communities: Acton, Agua Dulce, Castaic, Desert View Highlands, Elizabeth Lake, Green Valley, Hasley Canyon, Lake Hughes, Lake Los Angeles, Leona Valley, Littlerock, Quartz Hill, Stevenson Ranch, Sun Village, and Val Verde.

Major Transportation Facilities

Area freeways include the Golden State Freeway (I-5) and the Antelope Valley Freeway (SR-14). State Route SR-126 and SR-138 also impact the region. Metrolink operates commuter rail services with stations located in the cities of Lancaster, Palmdale, Santa Clarita, and in unincorporated areas of LA County.

Land Use and Demographics

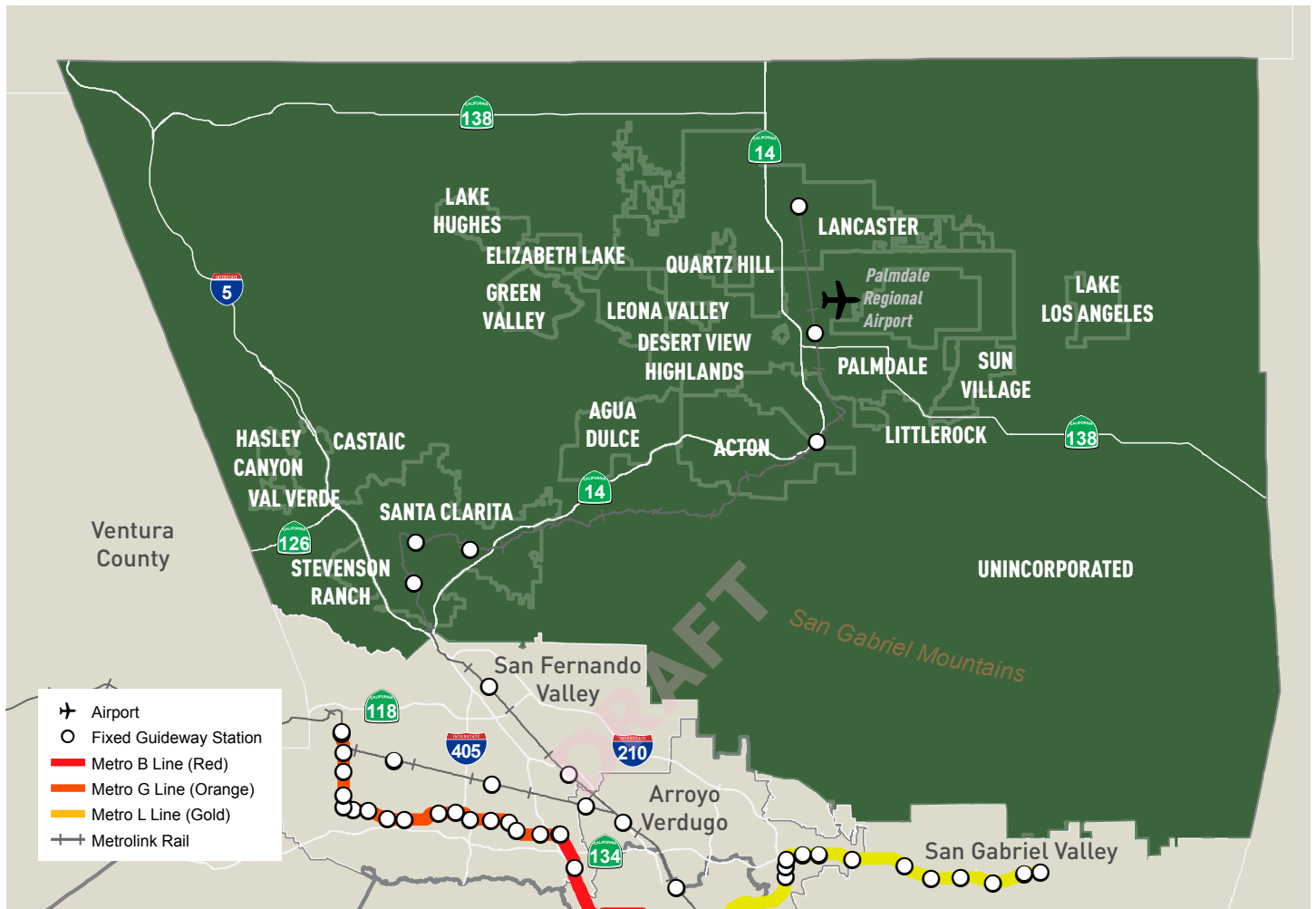
Roughly one percent of the subregion is designated for commercial/industrial land use and residential land use covers approximately four percent. Desert View Highlands is the smallest community in the subregion but has the highest population, employment, and daily trip densities. Palmdale is the largest city, followed by Lancaster, and Santa Clarita. The City of Santa Clarita has the 2nd highest densities in the subregion.

The North Los Angeles County subregion comprises the LA County area north of the San Fernando Valley. This subregion covers 2,479 square miles and includes three cities and unincorporated LA County. There are various unique characters in the landscape; as shown in Figure 93, the majority of the area is designated as desert/forest. The subregion is bounded to the south by the San Gabriel mountain range and Angeles National Forest, north-east by the Mojave Desert, and west by the Santa Susana mountain range. Snow is common in the mountain ranges over 4,000 feet. The subregion is home to the Henry Mayo Newhall Hospital as well as the California Institute of the Arts.

The subregion is the largest in the County by area, ranks 6th in total population, 8th in total employment, 8th in total daily trips, and 3rd in average median household income. The subregion has a high percentage of non-Hispanic Whites and Latino or Hispanic population.

Figure 88

NORTH LOS ANGELES COUNTY



Major Projects and Programs

North Los Angeles County will see two large projects including I-5 capacity enhancements and the High Desert Multi Purpose Corridor extending east-west across the region. The major subregional programs by dollar amount include the arterial and transit programs.

Figure 89

North Los Angeles County Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) \$679 M (2026)
	High Desert Multi-Purpose Corridor (HDMC) \$ 393 M (2034)
Multi-year Subregional Programs (in 2015 \$)	Active Transportation Program \$264 M (Start Date FY 2018)
	Transit Program \$88 million (\$588 M total cost) (Start Date FY 2018)
	Multimodal Connectivity Program \$239 M (Start Date FY 2033)
	Arterial Program \$726.1 M (Start Date FY 2048)
	Goods Movement Program \$104 M (Start Date FY 2048)
	Highway Efficiency Program \$128.9 M (Start Date FY 2048)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_North_County.pdf

Figure 90
NORTH LOS ANGELES COUNTY DAILY TRIPS

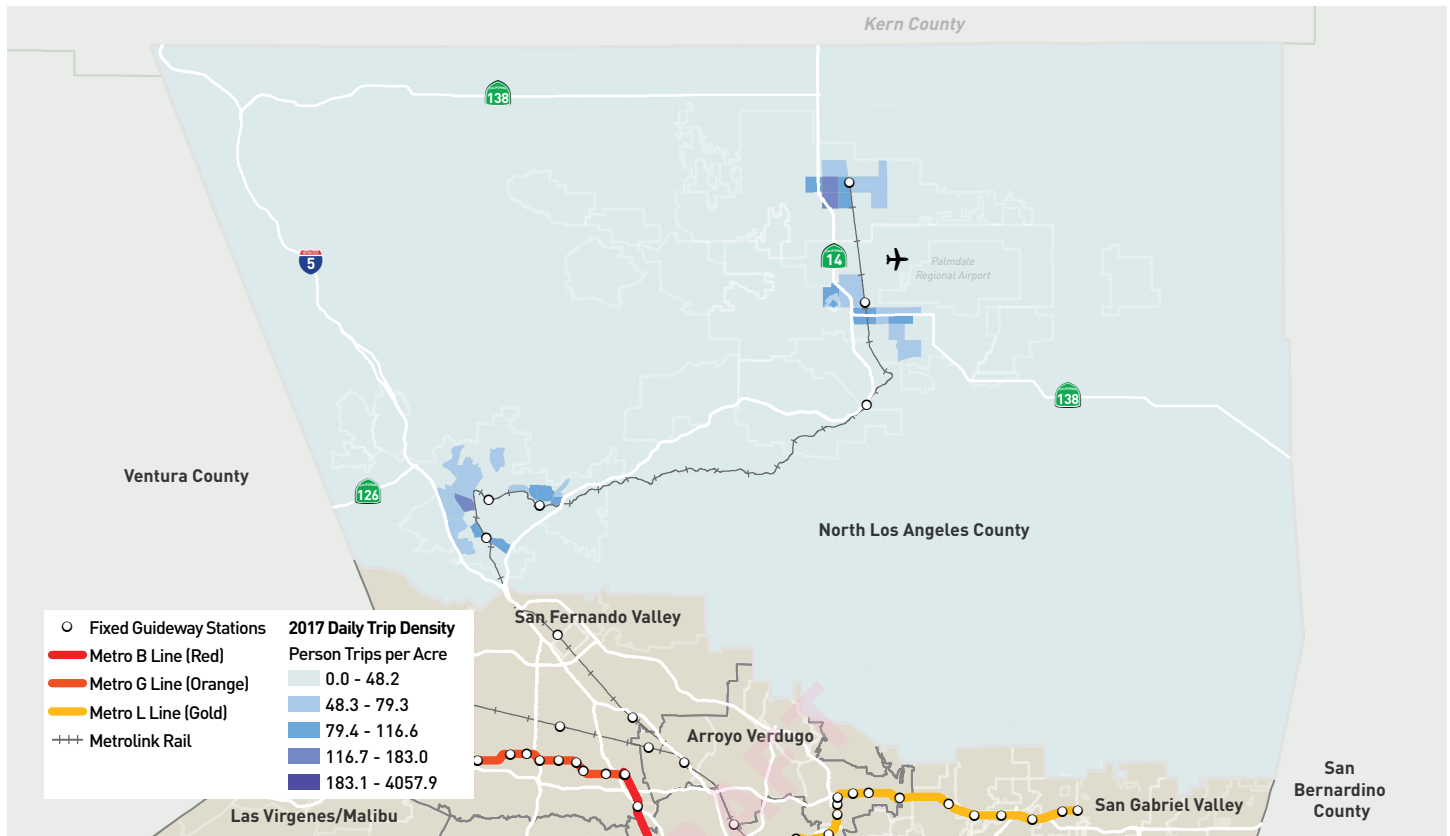


Figure 91
NORTH LOS ANGELES COUNTY EMPLOYMENT DENSITY

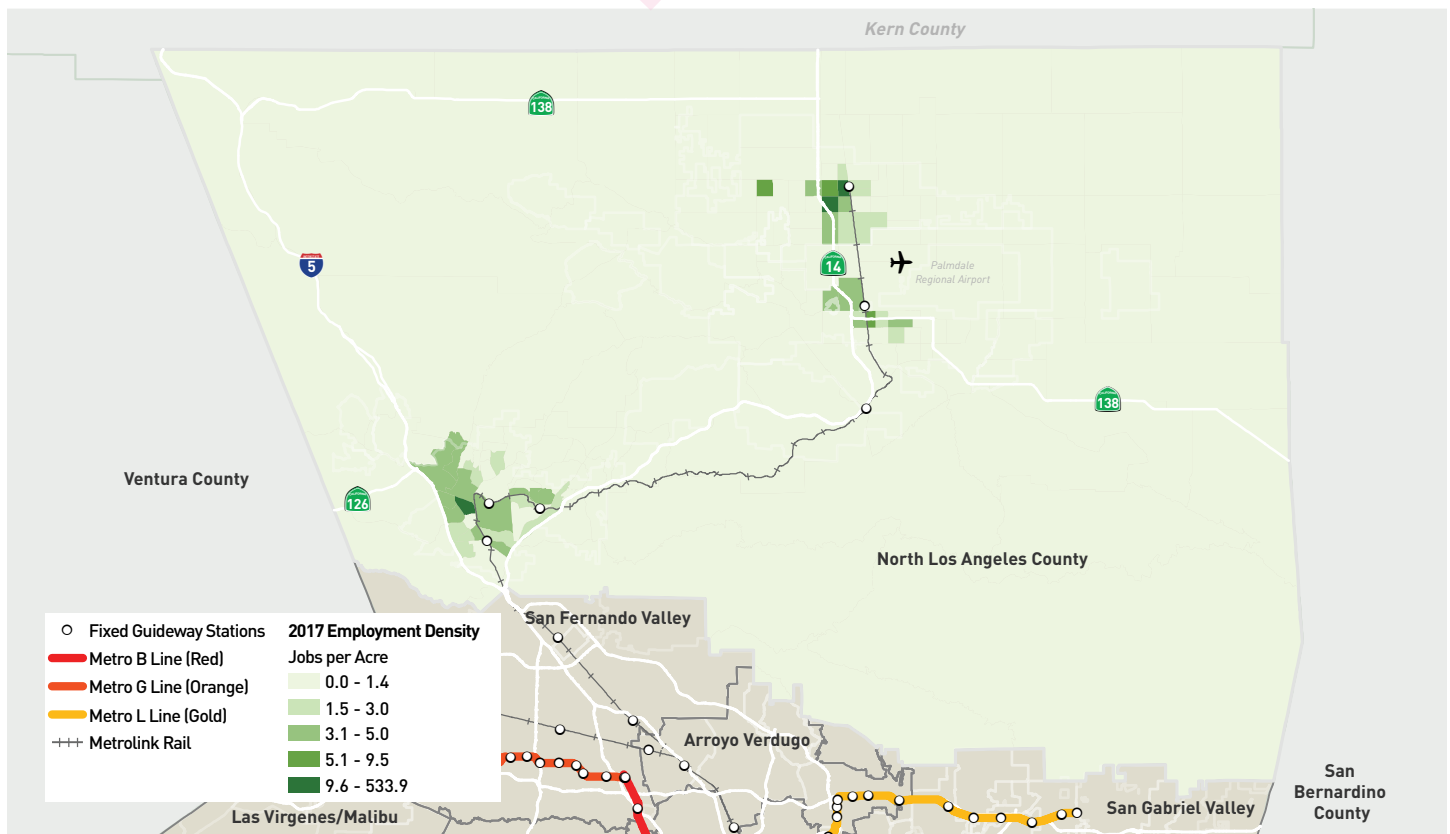


Figure 92

NORTH LOS ANGELES COUNTY POPULATION DENSITY

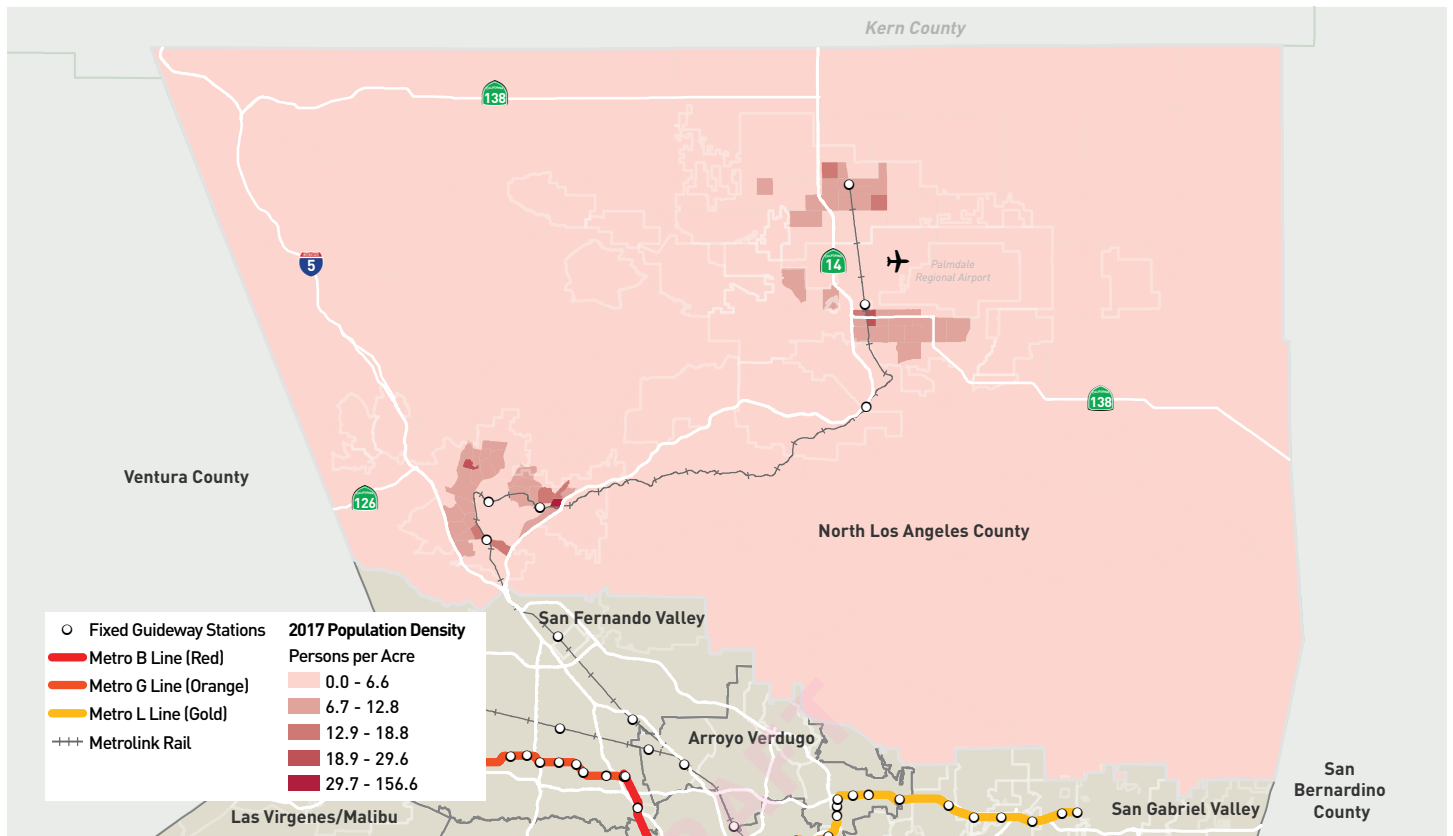


Figure 93

NORTH LOS ANGELES COUNTY LAND USE

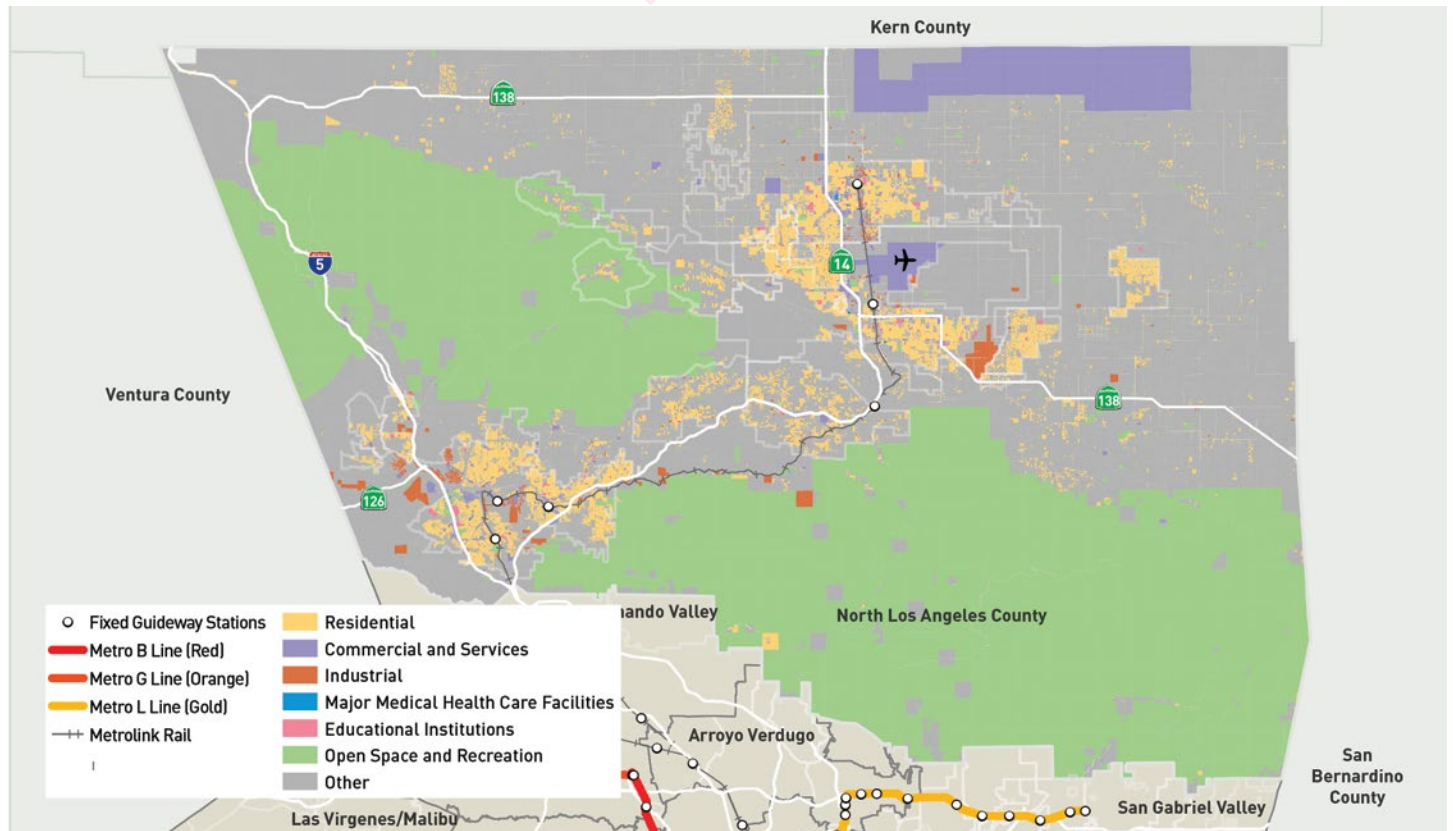
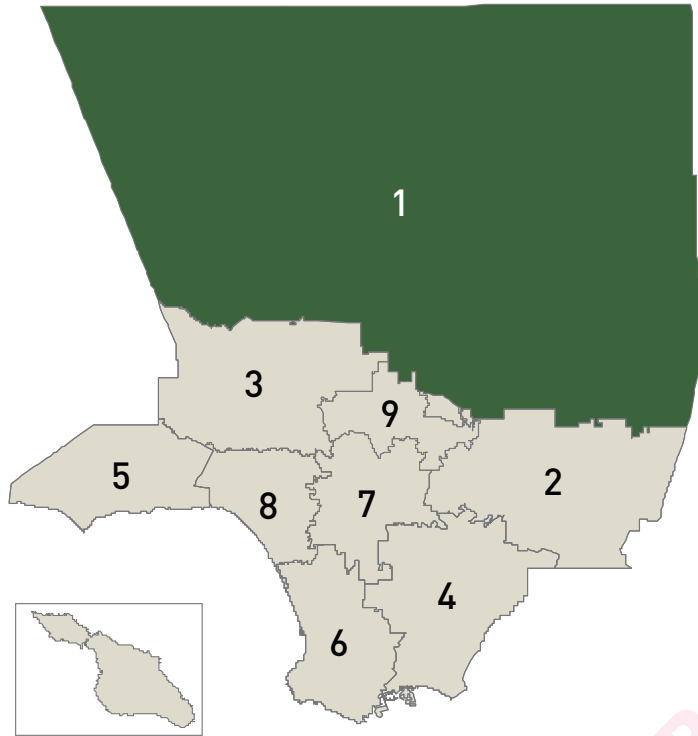


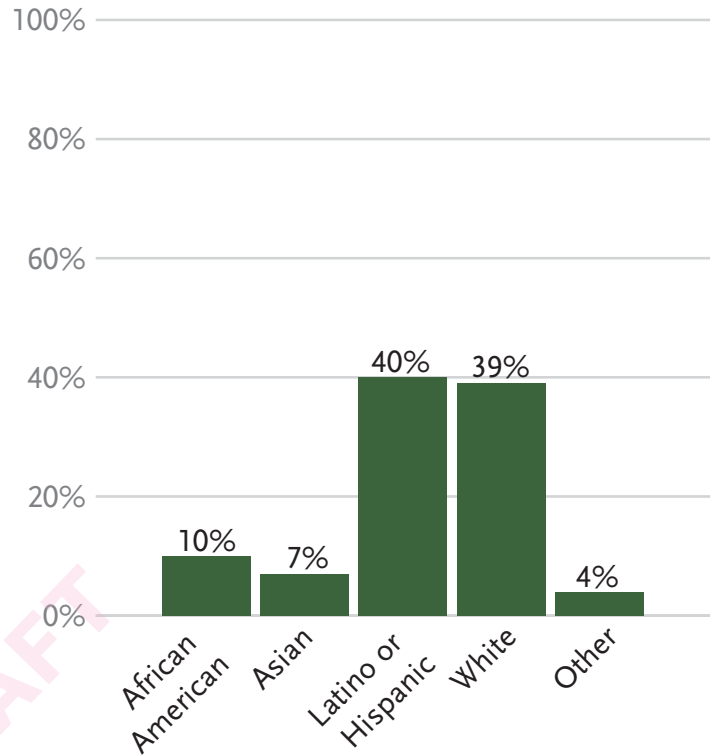
Figure 94

North Los Angeles County Summary Demographics

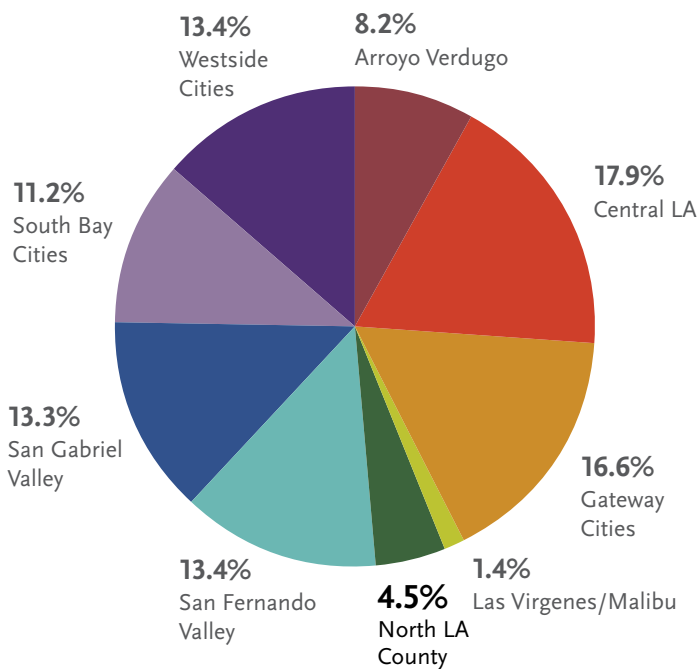
Total Area 2,479 Square Miles, Rank 1st
(Out of 9 Subregions)



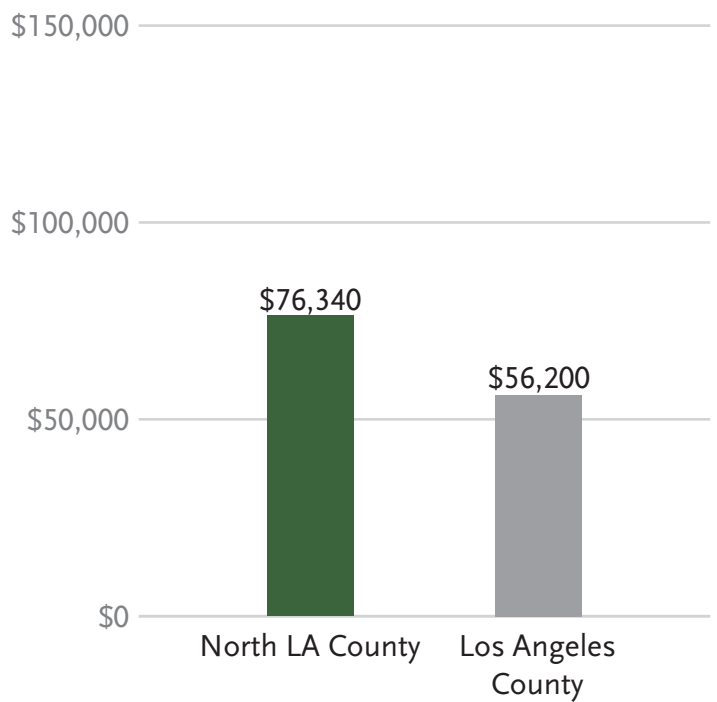
Total Population 671,680 People, Rank 6th



Total Employment 199,382 Jobs, Rank 8th



Median Household Income \$76,340 Average MHI, Rank 3rd



San Fernando Valley

San Fernando Valley includes portions of the City of Los Angeles, City of San Fernando, and parts of unincorporated LA County. The San Fernando (SF) Valley subregion fans north of the Hollywood Hills west to the Las Virgenes/Malibu area and eastward towards the Arroyo Verdugo subregion. This subregion covers 269 square miles and is home to two cities and numerous Los Angeles City communities. The San Fernando Valley is home to several entertainment companies, the most well-known of which work in motion pictures, music recording, and television production.

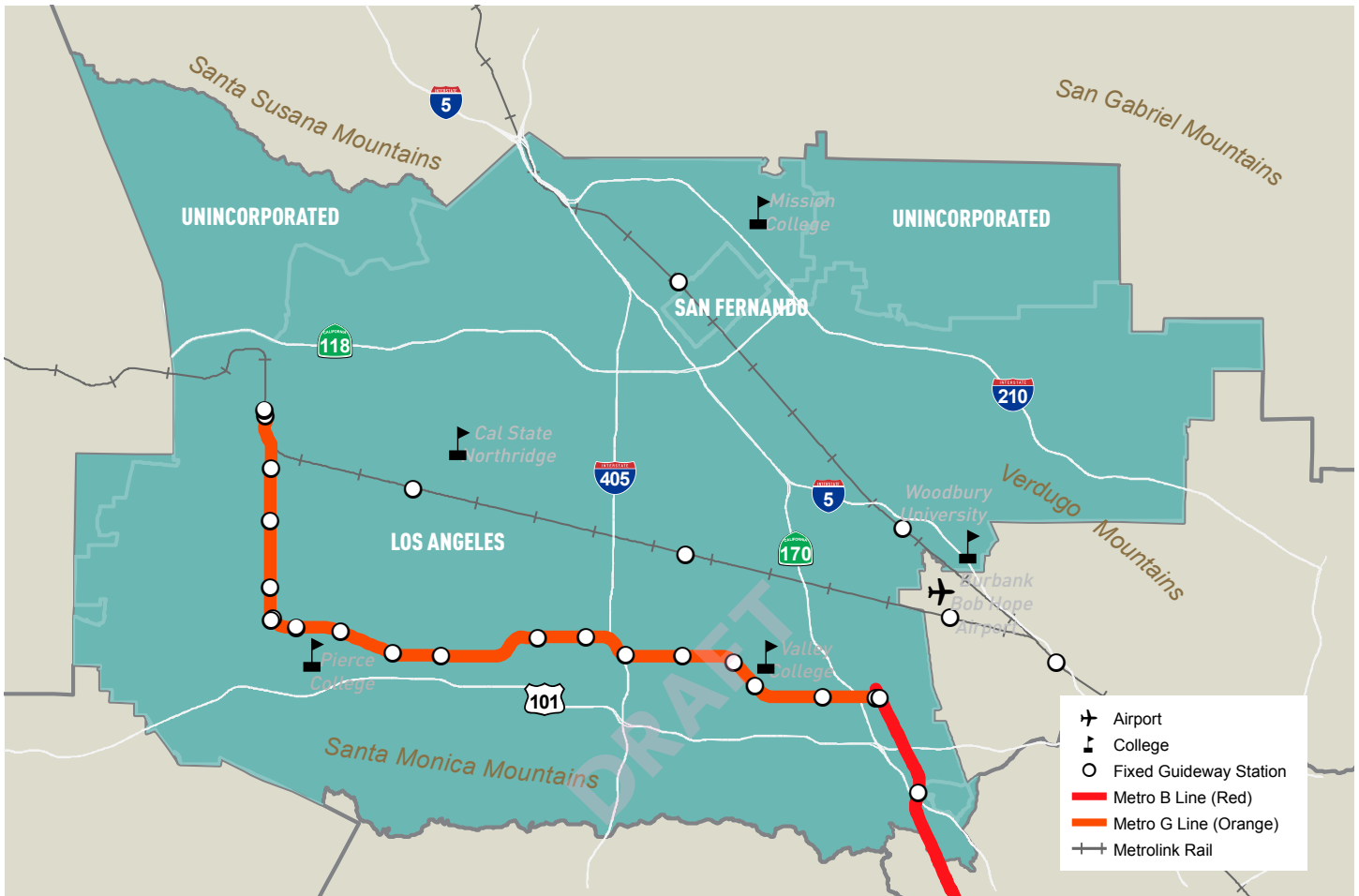
Major Transportation Facilities

A number of freeways crisscross this subregion, including the Golden State Freeway (I-5), Ventura Freeway (US-101 and SR-134), Simi Valley Freeway (SR-118), Hollywood Freeway (SR-170), San Diego Freeway (I-405) and Foothill Freeway (I-210). There are carpool lanes on the SR-118, SR-134, and SR-170 and portions of the I-5 and I-405.

The I-405 is the major conduit between the San Fernando Valley and the Westside Cities, carrying several hundred thousand vehicles per day through the Sepulveda Pass. The I-405/US-101 and I-405/I-10 interchanges at either end of this section are two of the 10 busiest interchanges in the nation. Due to capacity limitations on the I-405 through the Pass, Sepulveda Bl, Laurel Canyon Bl, Coldwater Canyon Dr, and Beverly Glen Bl carry significant traffic between the San Fernando Valley and the Westside, impacting local residents. The I-405 is also the primary route to LAX from the San Fernando Valley and the North County sub-region.

Municipal operators as well as Metro provide bus and rail services to the subregion. The Metro Red Line serves this area via stations at Universal City and North Hollywood. Metrolink's Antelope Valley and Ventura County lines provide commuter rail service. The Metro Orange Line transitway, which includes a Class I bikeway along most of the alignment, runs between the North Hollywood Metro Rail station and the Metrolink Chatsworth Station in the area.

Figure 95
SAN FERNANDO VALLEY



Land Use and Demographics

Roughly 11 percent of the subregion is designated for commercial/industrial land use and residential land use covers approximately 35 percent. Figure 100 below shows the land use for communities within the subregion. City of Los Angeles is the largest city and has the biggest residential area in the subregion. The City of San Fernando is the smallest city in the subregion but has the highest area percentage of residential, commercial, and industrial land uses as well as the highest density in terms of population, employment, and daily trips. The subregion is home to Cal State Northridge as well as the Providence Holy Cross Medical Center and Kaiser Permanente Panorama City.

The area is the 4th largest subregion by area, ranks 4th in total population, 3rd in total employment, 4th in total daily trips, and 5th in average median household income. The subregion has a high percentage of non-Hispanic Whites and Latino or Hispanic population.

Major Projects and Programs

The San Fernando Valley subregion has several planned projects that will traverse the region. In the coming years, the G Line (Orange) will undergo improvements and the North Hollywood to Pasadena Transit Corridor will be built to connect to the G Line. The LA River Path will also connect the San Fernando Valley with active transportation facilities.

Figure 96

San Fernando Valley Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	G Line (Orange) Improvement \$314 M (2025)
	North Hollywood to Pasadena Transit Corridor \$315 M (2026)
	East San Fernando Valley Light Rail Project \$1.57 B (2027)
	LA River Path – San Fernando Valley \$60 M (2025)
	Sepulveda Transit Corridor, Phase 1 – Valley to Westside \$7.69 M (2033) and Phase 2 – Westside to LAX 10.59 B (2057) (\$18.27 B total cost)
	North San Fernando Valley Transit Corridor \$207 M (2025)
	G Line (Orange) Conversion to Light Rail \$4.07 B (2057)
	City of San Fernando Bike Master Plan \$5 million (2052)
Multi-year Subregional Programs (in 2015 \$)	N/A

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_SFV.pdf

Figure 97
SAN FERNANDO VALLEY DAILY TRIPS

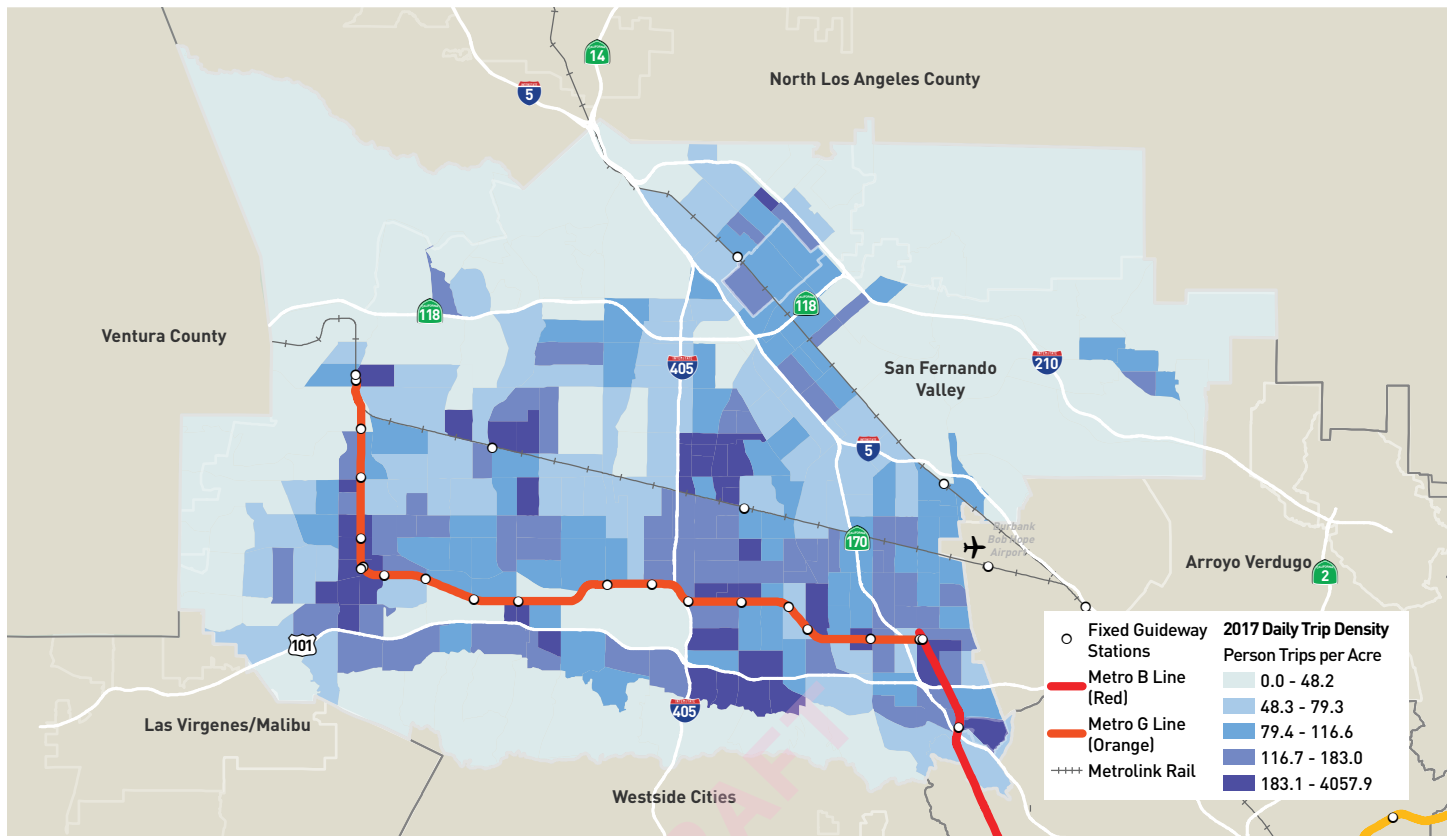


Figure 98
SAN FERNANDO VALLEY EMPLOYMENT DENSITY

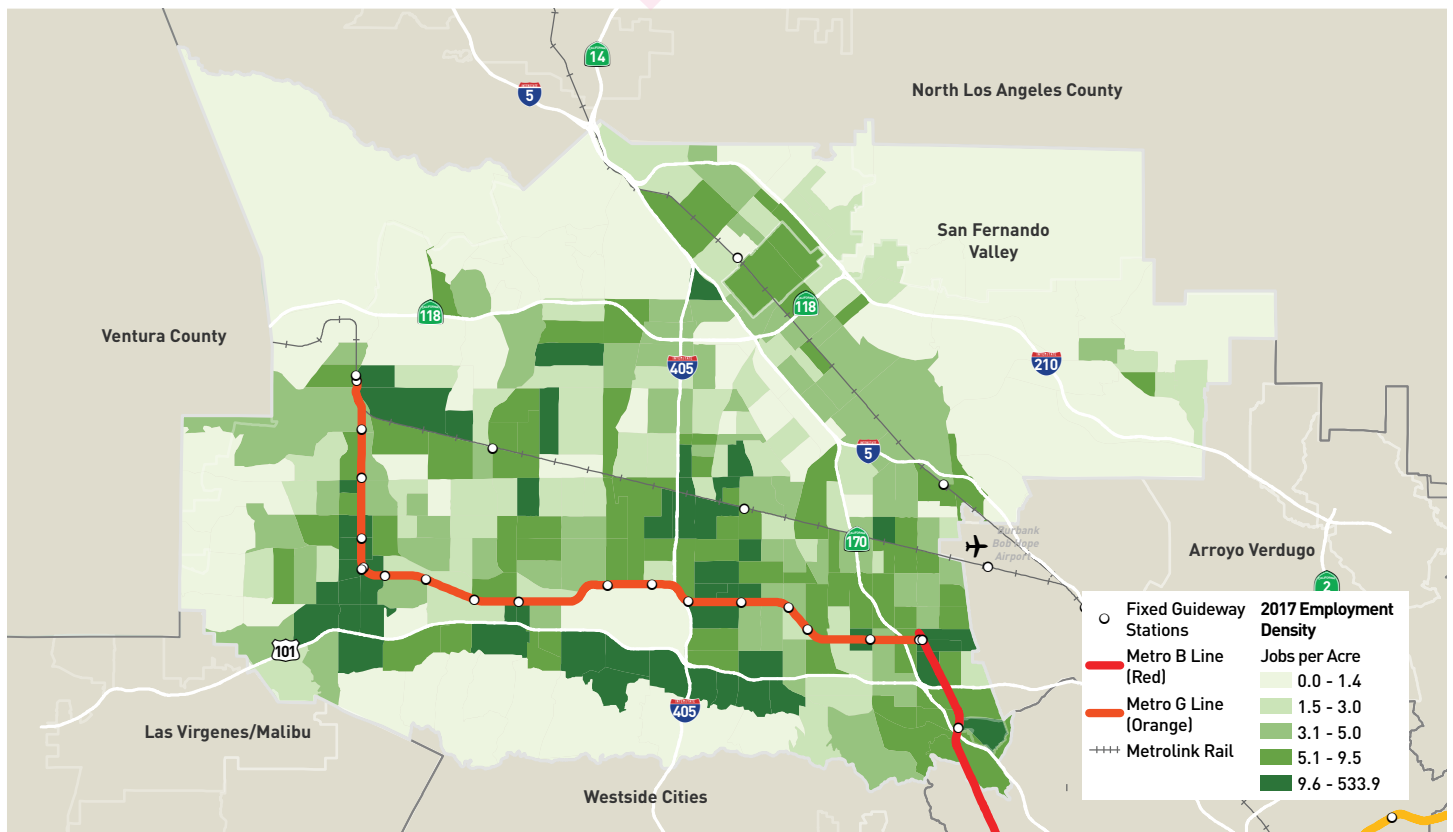


Figure 99

SAN FERNANDO VALLEY POPULATION DENSITY

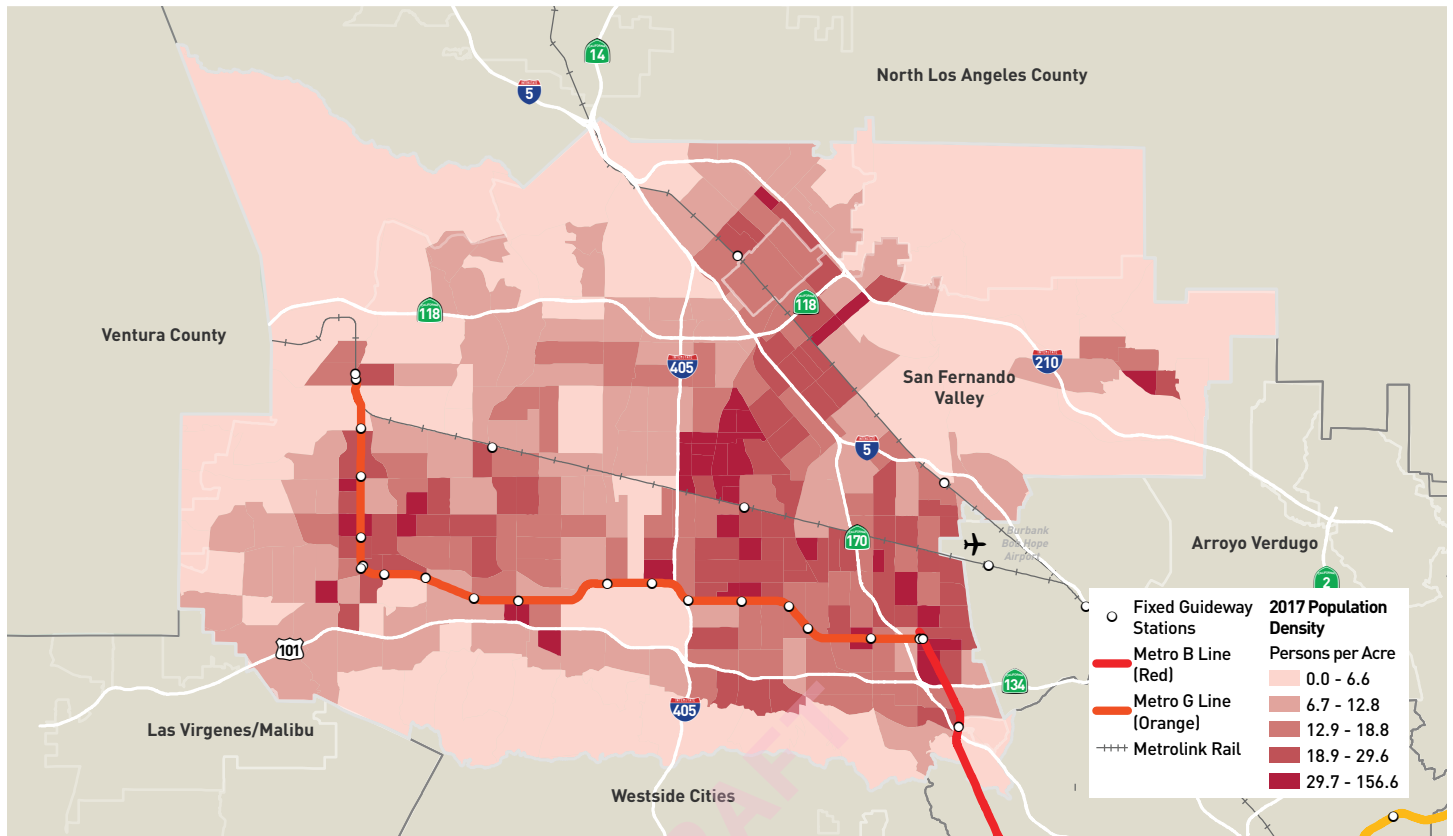


Figure 100

SAN FERNANDO VALLEY LAND USE

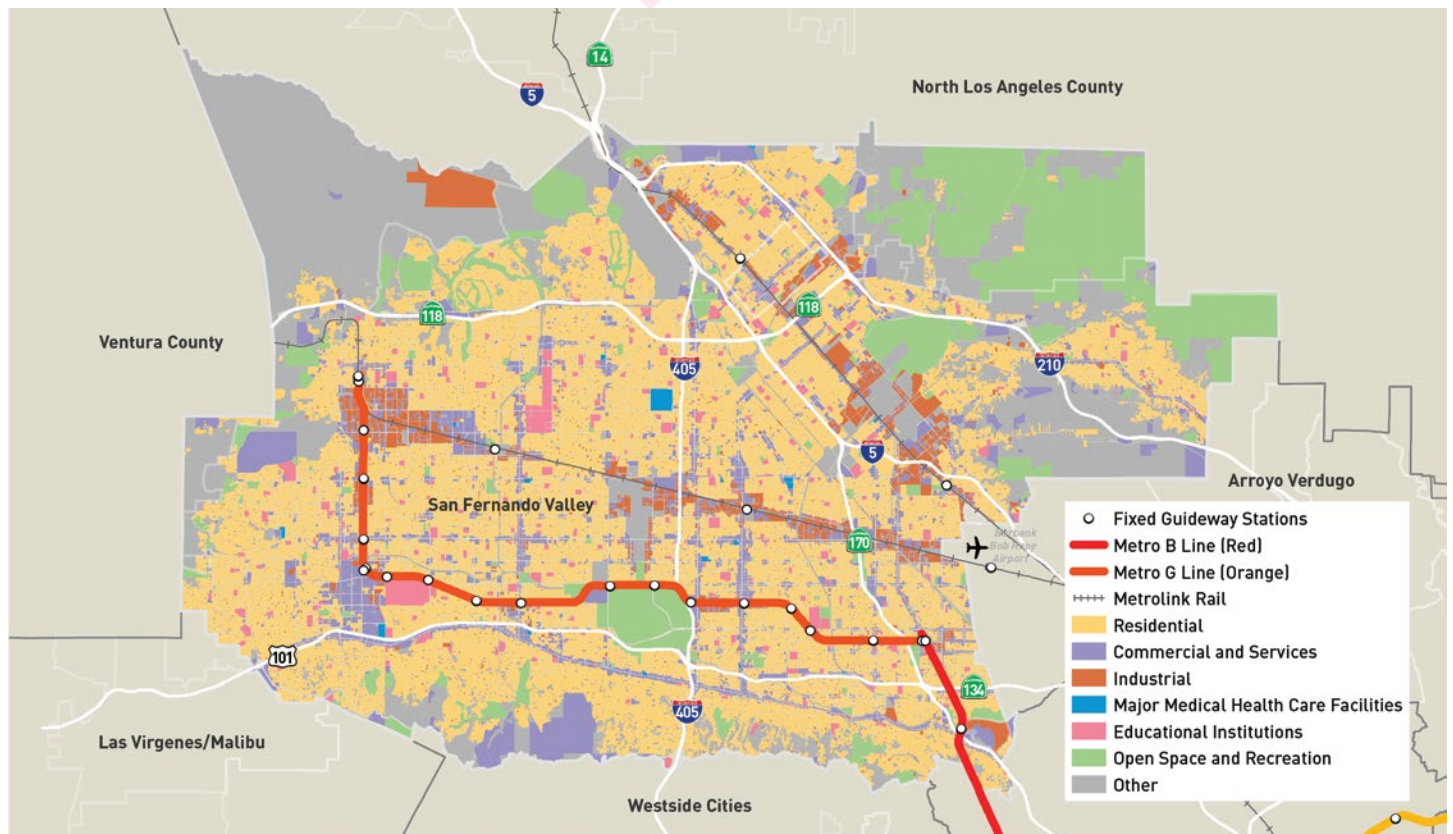
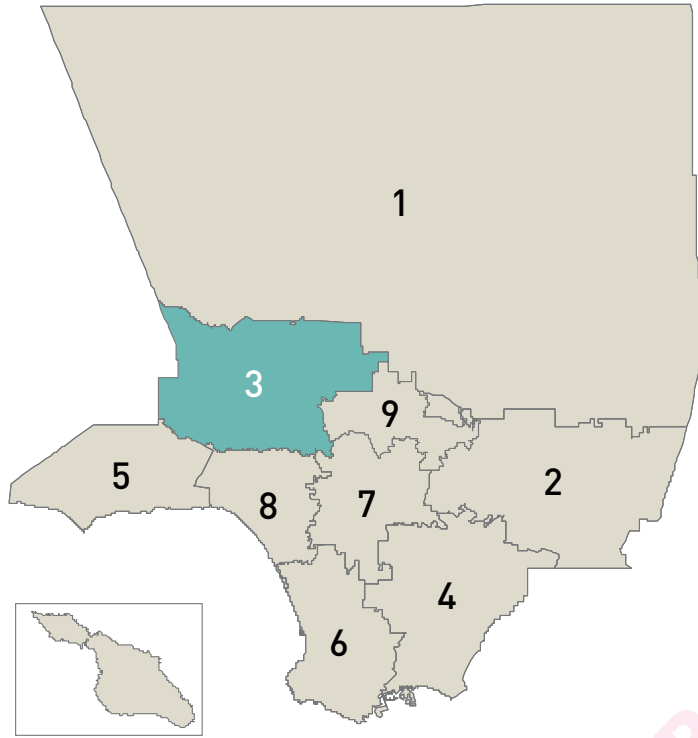


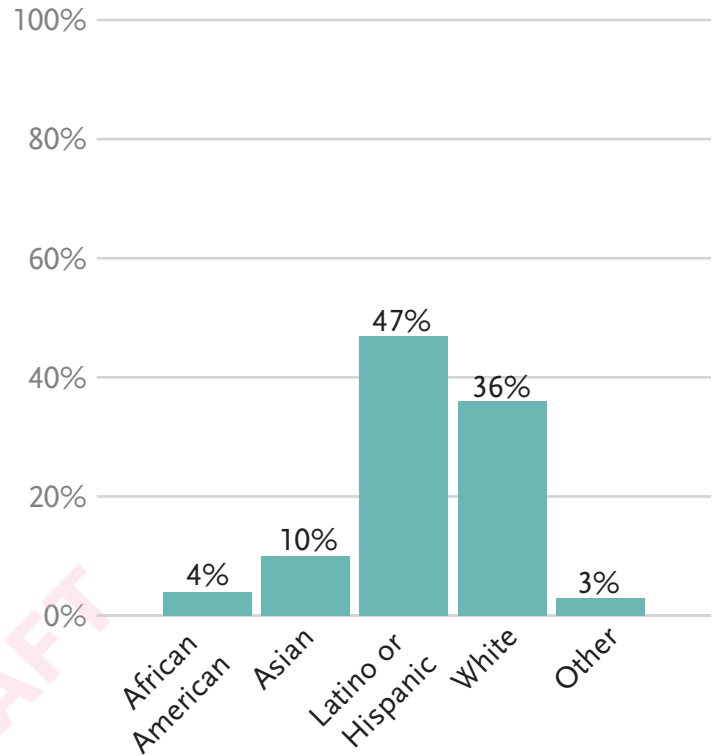
Figure 101

San Fernando Valley Summary Demographics

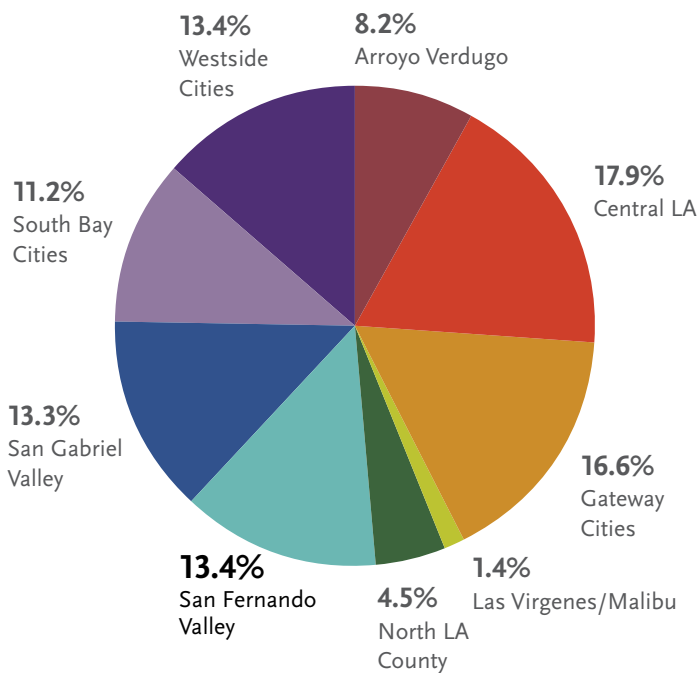
Total Area 269 Square Miles, Rank 3rd
(Out of 9 Subregions)



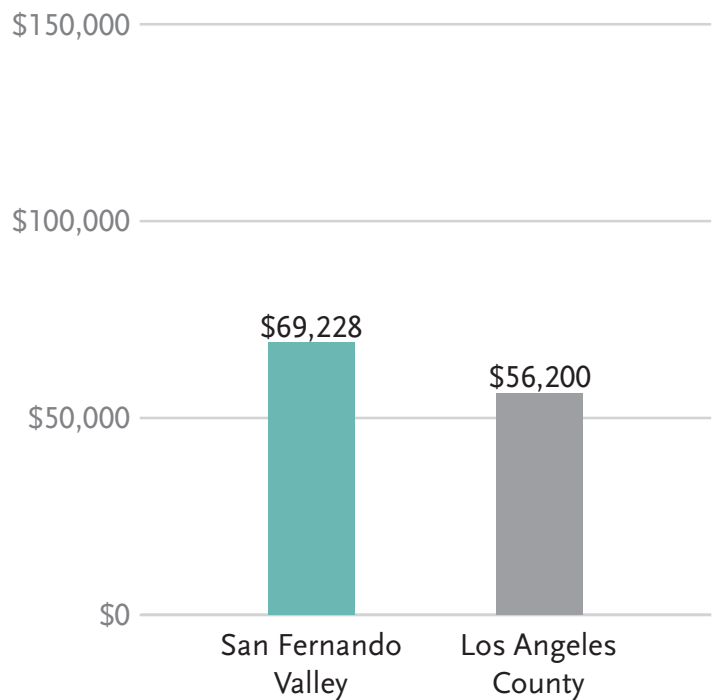
Total Population 1,514,066 People, Rank 4th



Total Employment 593,890 Jobs, Rank 3rd



Median Household Income \$69,228 Average MHI, Rank 5th



San Gabriel Valley

San Gabriel Valley includes Alhambra, Arcadia, Azusa, Baldwin Park, Bradbury, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Industry, Irwindale, La Puente, La Verne, Monrovia, Monterey Park, Pomona, Rosemead, San Dimas, San Gabriel, San Marino, Sierra Madre, South El Monte, Temple City, Walnut, and West Covina. San Gabriel Valley also includes the following unincorporated communities of LA County: Altadena, Avocado Heights, Charter Oak, Citrus, East Pasadena, East San Gabriel, Hacienda Heights, Mayflower Village, North El Monte, Rowland Heights, San Pasqual, South Monrovia Island, South San Gabriel, South San Jose Hills, Valinda, Vincent, and West Puente Valley.

The subregion is home to several colleges, including Cal State Pomona, University of La Verne, the Claremont Colleges, Citrus College, East LA College, and Mt. San Antonio College. Major medical facilities include Alhambra Hospital Medical Center, Methodist Hospital, Harbor-UCLA Medical Center, and Kaiser Permanente South Bay Medical Center.

Major Transportation Facilities

One of the unique transportation features of this subregion is the significant number of freeways that traverse it; namely, San Bernardino Freeway (I-10), Foothill Freeway (I-210), Pasadena Freeway (SR-110), Orange Freeway (SR-57), Pomona Freeway (SR-60), Chino Valley Freeway (SR-71), San Gabriel River Freeway (I-605) and the Long Beach Freeway (I-710). The Foothill Freeway has a carpool lane in each direction through the entire San Gabriel Valley subregion. Carpool lanes also exist on portions of I-10, I-605, and SR-60.

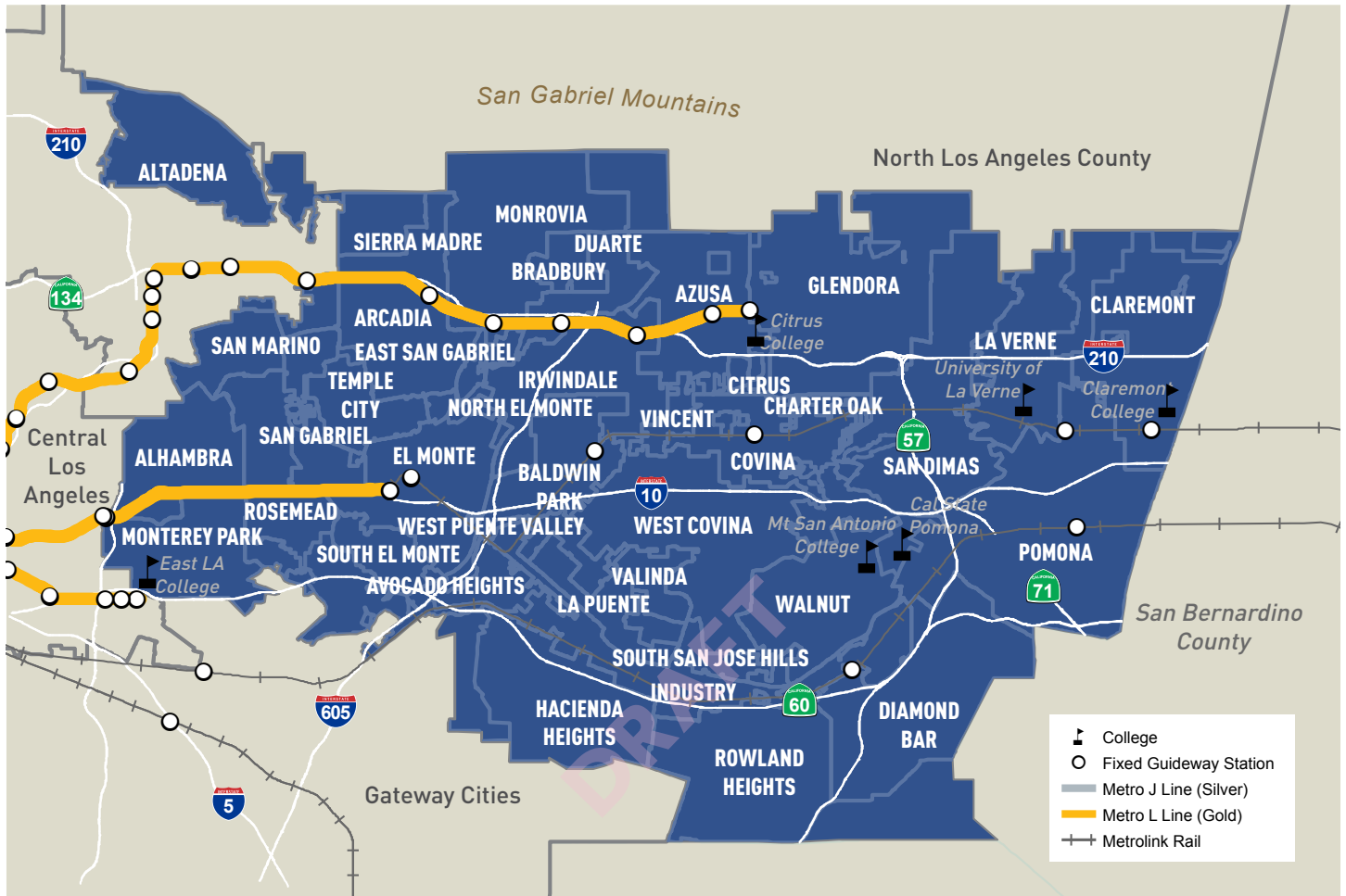
The El Monte Busway on the I-10 serves both buses and carpools and is the highest-volume carpool facility in LA County. Metro, Foothill, and Montebello Transit provide bus service to the subregion. Most cities in this subregion provide dial-a-ride services within their city limits to seniors and persons with disabilities.

Land Use and Demographics

Figure 107 below shows the breakdown of land use for communities within the subregion. The City of Industry has the largest percentage of commercial/industrial land use and the highest employment density in the area. The communities of South Monrovia Island and South San Gabriel have the highest percentage of residential land use area. The Cities of Industry and Irwindale contains the largest total area for commercial/industrial use.

Figure 102

SAN GABRIEL VALLEY



The City of Alhambra has the highest daily trip density in the subregion. The city is split by the I-10, which serves both buses and carpools and has the highest volume carpool facility in LA County. Population, employment, and trip densities can be seen clustering in or near the City of Alhambra, Rosemead, El Monte, South El Monte, Baldwin Park, Irwindale, Covina, La Puente, Azusa, Duarte, West Puente Valley, South San Jose Hills, and Pomona, and the southern portion of Claremont. The City of Industry has the highest employment density in the subregion. The highest population density area can be found in the community of San Jose Hills, but the highest total population is in the City of Pomona. Zero-vehicles households are dispersed throughout the region, with most of the tracts clustering around Alhambra, Monterey Park, El Monte, Duarte, La Verne, Claremont, and Pomona.

Major medical facilities include Arcadia Methodist Hospital, City of Hope, Kaiser Permanente Baldwin Park, and Pomona Valley Hospital. The San Gabriel Valley is also home to several universities including Cal State Poly Pomona, Azusa Pacific University, and University of La Verne.

The San Gabriel Valley subregion sits in the easternmost portion of LA County. It covers 322 square miles and is approximately 99 percent built-out, leaving very little undeveloped land for commercial or industrial uses.

The subregion encompasses 31 jurisdictions and is home to 570,000 jobs. The area is also characterized by socioeconomic and ethnic diversity and is comprised of some of the most affluent as well as the lowest-income communities within LA County.

Major Projects and Programs

The subregion's major transportation investments include the Gold Line Foothill Extension to Claremont and multiple interchange projects. San Gabriel Valley has several subregional programs including significant funding for active transportation and highway programs.

Figure 103

San Gabriel Valley Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	Gold Line Foothill Extension to Claremont \$1.57 B (2028)
	SR-71 Gap from I-10 to Rio Rancho Rd \$637 M (2026)
	SR-57/SR-60 Interchange Improvements \$422 M (2027)
	I-605/I-10 Interchange \$1.29 B (2047)
	SR 60/I-605 Interchange HOV Direct Connectors \$1.06 B (2047)
Multi-year Subregional Programs (in 2015 \$)	Active Transportation Program (Including Greenway Proj.) \$231 M (Start Date FY 2018)
	Bus System Improvement Program \$55 M (Start Date FY 2018)
	First/Last Mile and Complete Streets \$198 M (Start Date FY 2018)
	Highway Demand Based Program (HOV Ext. & Connect.) \$231 M (Start Date FY 2018)
	Goods Movement (Improvements & RR Xing Elim.) \$33 M (Start Date FY 2048)
	Highway Efficiency Program \$534 M (Start Date FY 2048)
	ITS-Technology Program (Advanced Signal Tech.) \$66 M (Start Date FY 2048)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_SGV.pdf

Figure 104

SAN GABRIEL VALLEY DAILY TRIPS

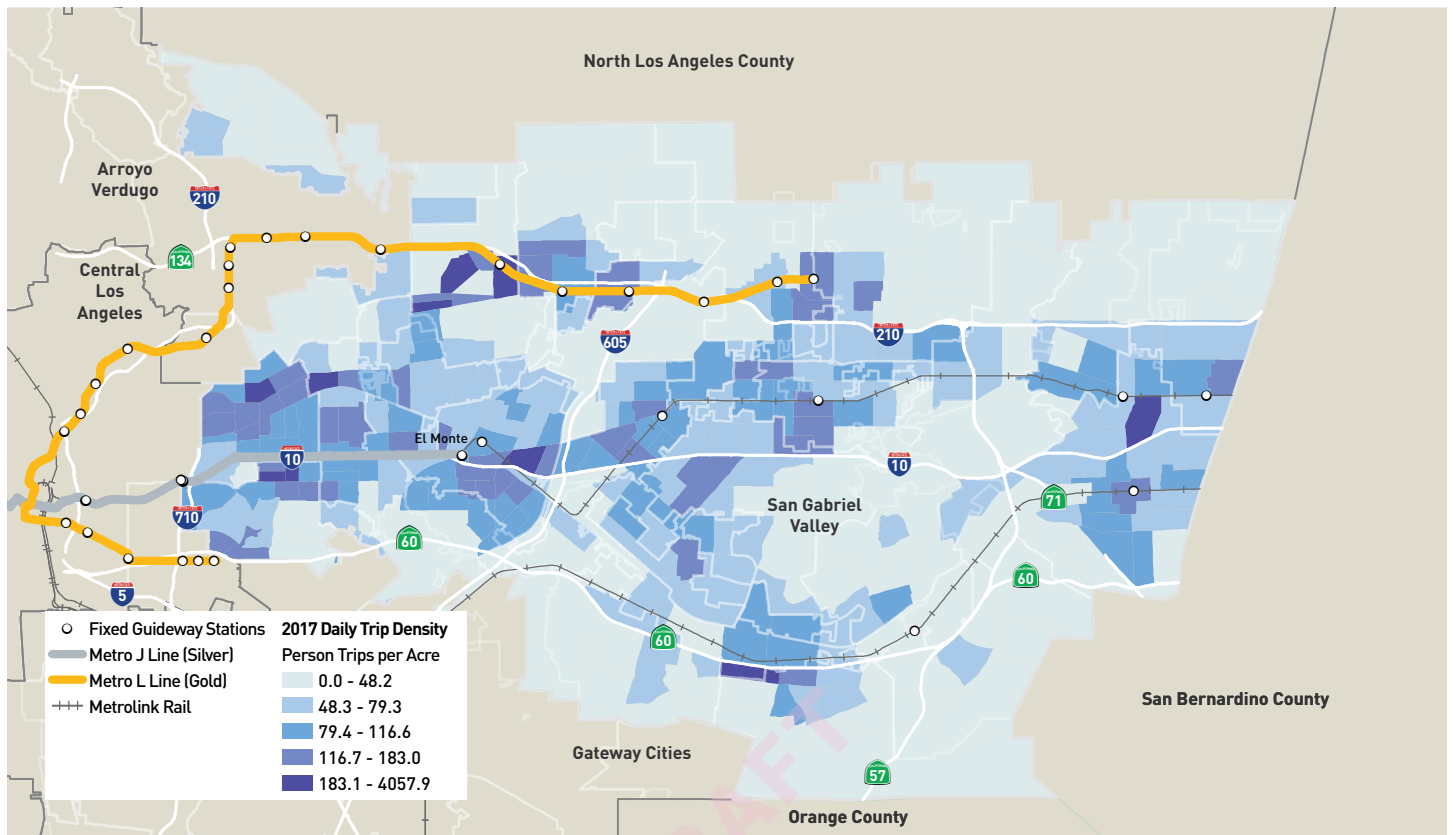


Figure 105

SAN GABRIEL VALLEY EMPLOYMENT DENSITY

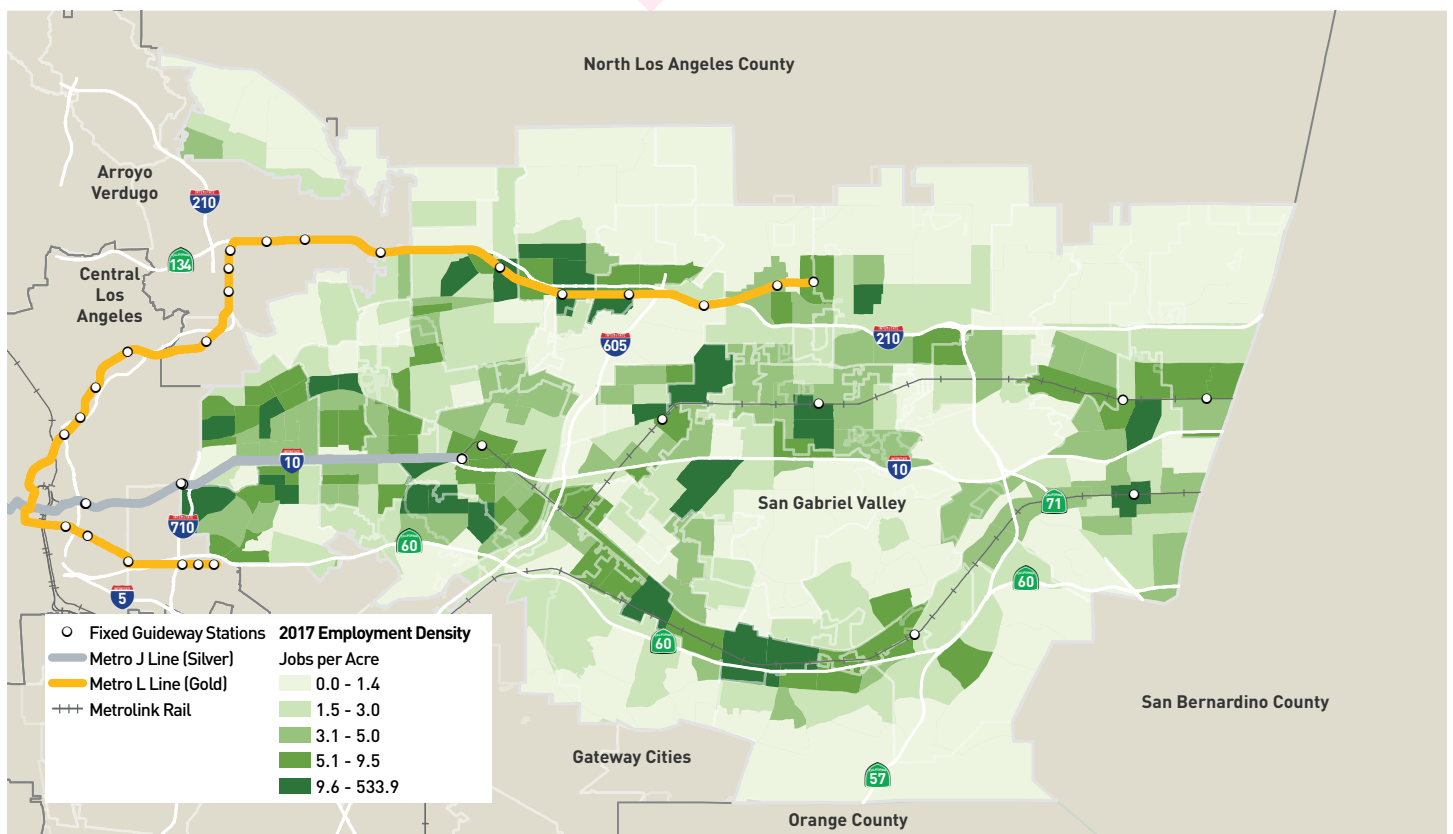


Figure 106

SAN GABRIEL VALLEY POPULATION DENSITY

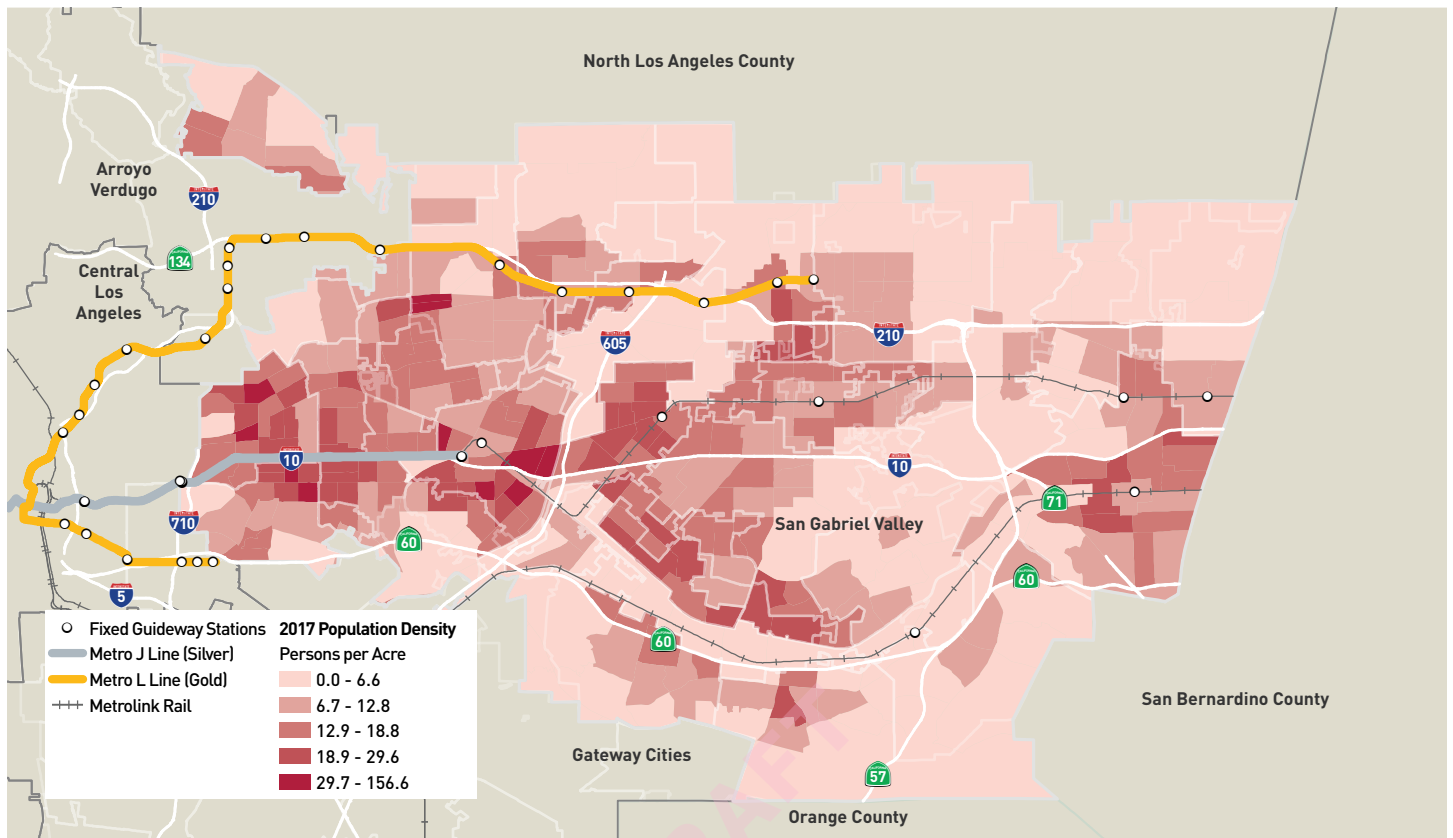


Figure 107

SAN GABRIEL VALLEY LAND USE

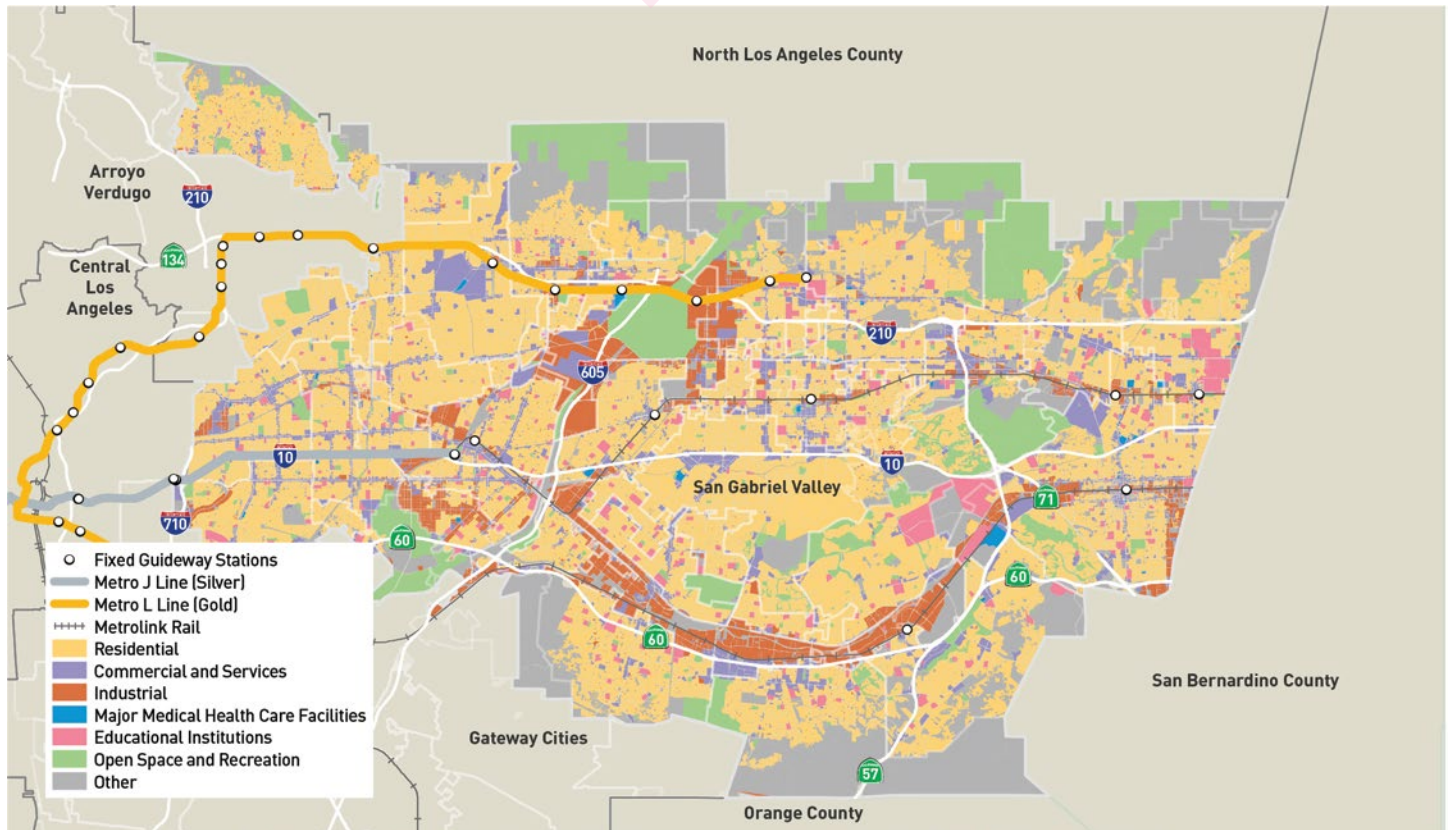
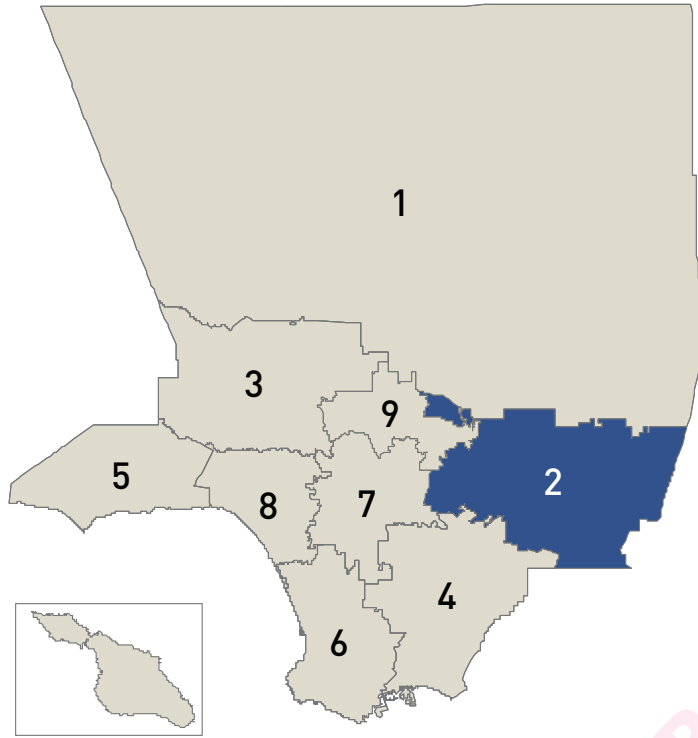


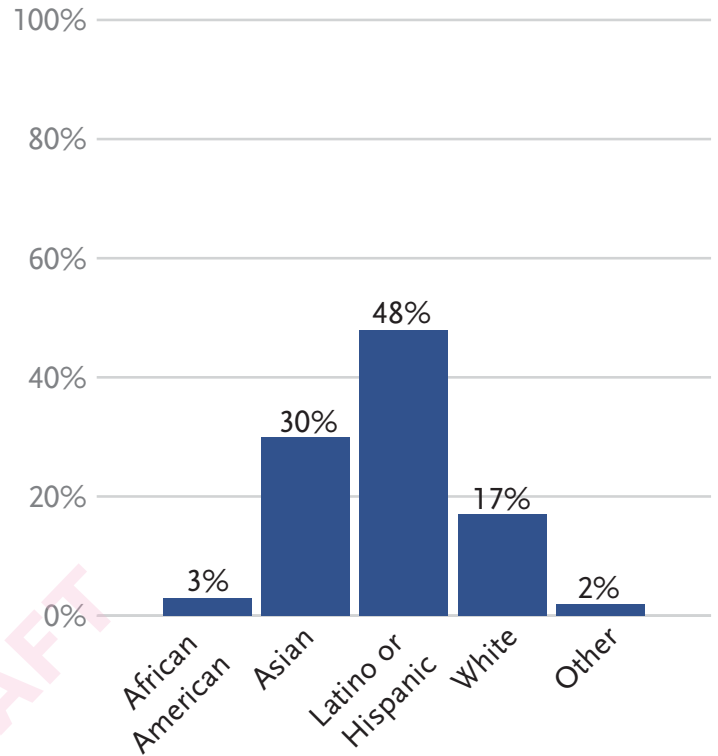
Figure 108

San Gabriel Valley Summary Demographics

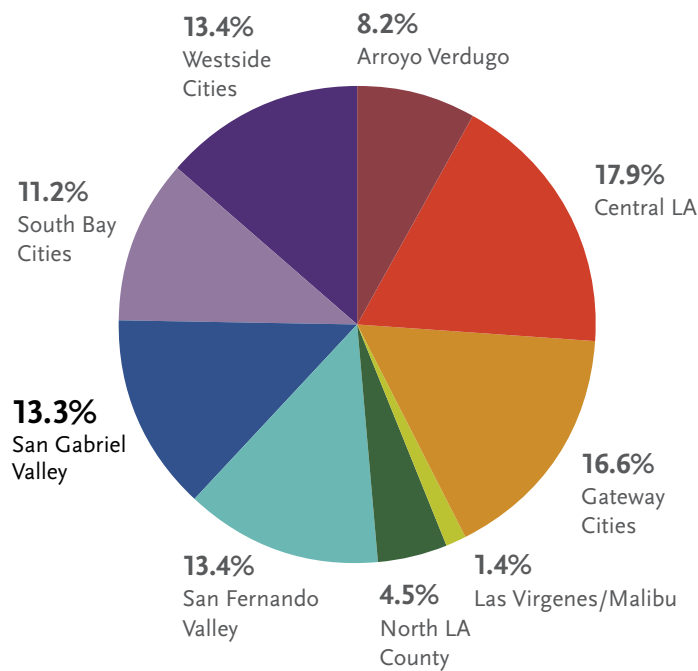
Total Area 324 Square Miles, Rank 2nd
(Out of 9 Subregions)



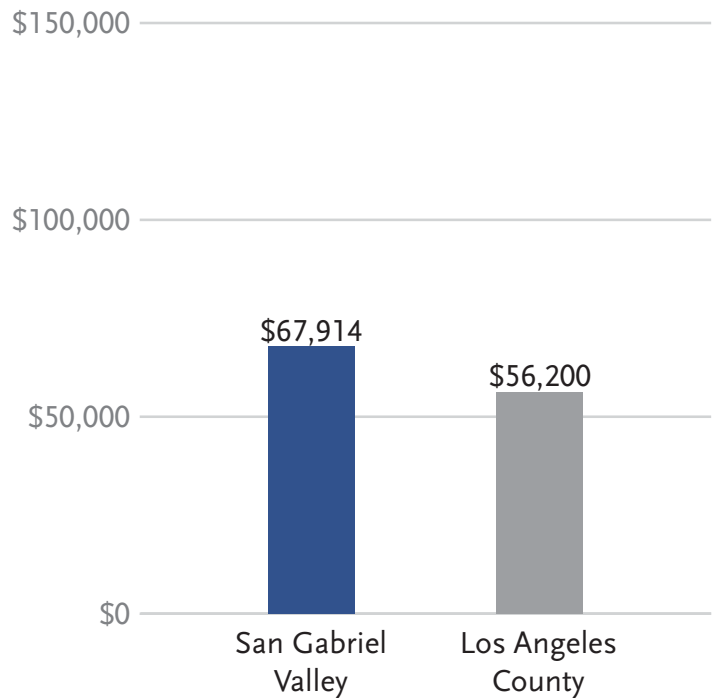
Total Population 1,618,858 People, Rank 3rd



Total Employment 587,628 Jobs, Rank 5th



Median Household Income \$67,914 Average MHI, Rank 7th



South Bay Cities

South Bay Cities include portions of Los Angeles, Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, and Torrance. South Bay Cities also include the following unincorporated communities of LA County: Alondra Park, Del Aire, Lennox, West Athens, West Carson, and Westmont.

Major Transportation Facilities

The Glenn Anderson (Century, I-105), Harbor (I-110) and the San Diego (I-405) freeways serve the South Bay area. SR-91 terminates near the eastern portion of the subregion, near Harbor Gateway Transit Center. A transitway, which provides elevated carpool lanes and a busway, runs down the center of the Harbor Freeway from USC in Central Los Angeles southwards to SR-91. A unique feature of the carpool lanes on the I-110 and I-105 Freeways is that they flow directly into each other via an elevated direct connector interchange, bypassing the at-grade interchange used by other traffic. In addition, the South Bay is traversed with major arterials that carry capacity that is equivalent to the local freeway system. These major arterials include Hawthorne Bl, Pacific Coast Hwy, Sepulveda Bl, Crenshaw Bl, Artesia Bl, Lomita Bl, Manhattan Beach Bl, Douglas St, Rosecrans Av, and 190th St as well as others.

The South Bay has two major transportation hubs near its borders – LAX, and the Port of Los Angeles. LAX passenger trips substantially add to traffic volumes on the freeways and surface streets traversing the area. Cargo and truck traffic also impact the subregion's transportation system. During the economic downturn in the 1990s, the South Bay adapted existing business structures to warehousing, which has led to increased truck traffic, added congestion and associated pavement damage on arterials and freeways (I-405 and I-110). At the same time, transporting goods into and out of the subregion has added traffic volumes to the freeways, placing additional capacity pressure on the aging onramps.

The Metro Green Line runs in the median of the I-105 Freeway from Norwalk in the east to the southern edge of Los Angeles International Airport (LAX) and south to Redondo Beach. A long segment of the Alameda Corridor runs along the subregion's eastern border. The area has regional and local transit services provided by Metro, Torrance Transit, Municipal Area Express (MAX), Gardena Municipal Bus Lines, Long Beach Transit, Palos Verdes Transit, Beach Cities Transit, Carson Circuit, Lawndale Beat, and LADOT's Commuter Express. In addition, many local jurisdictions operate transit and dial-a-ride services within their boundaries.

Figure 109
SOUTH BAY CITIES



Land Use and Demographics

Roughly 19 percent of the subregion is designated for commercial/industrial land use and residential land use covers approximately 37 percent. Figure 114 below shows the breakdown of land use for communities within the subregion. City of Los Angeles is the largest city in the subregion. The city of Rolling Hills has the largest percentage of residential land use but the lowest population density in the subregion. City of Torrance has the largest total area for residential land use. City of El Segundo has the highest percentage of industrial land use but the City of Carson has the largest total area. City of Los Angeles has the largest total commercial area, followed by the City of Torrance.

In addition, major trip generators/attractors such as the StubHub Center, The Forum, and Hollywood Park, add to the considerable demand for commuter and entertainment travel and overall travel mobility needs of the subregion. Trip and population density clusters in the areas along I-405, I-110, and I-105 Freeways. High population and trip densities tends to occur in most areas north of Pacific Coast Highway and in the San Pedro community. City of El Segundo has the highest employment density, followed by Hermosa Beach and Torrance.

The South Bay Cities subregion is located at the southern end of the Santa Monica Bay. This subregion covers 154 square miles and is home to 16 cities and unincorporated County areas. The west and southern portion of the subregion is bounded by the Pacific Ocean. El Porto Beach, Abalone Cove, and Venice Beach are major attractions for surfers and other beach activities. Cal State Dominguez Hills is located in the City of Carson. Major medical facilities include Harbor-UCLA Medical Center, Kaiser Permanente South Bay Medical Center, and Children’s Hospital Los Angeles.

Major Projects and Programs

Upcoming transportation projects in South Bay Cities include the airport Metro Connector and the I-105 ExpressLane, which will both provide added accessibility to LAX. Highway Operational Improvements and Transportation System and Mobility Improvements are the two South Bay Cities subregional programs.

Figure 110

South Bay Cities Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	Airport Metro Connector/96th Street Station/ Green Line Ext LAX \$626 M (2024)
	I-105 ExpressLane from I-405 to I-605 \$530 M (2025)
	C Line (Green) Extension to Torrance \$1.17 B (2030)
	I-405/I-110 Interchange HOV Connect Ramps and Interchange Improvements \$504 M (2044)
	I-110 ExpressLanes Extension South to I-405/I-110 Interchange \$599 M (2046)
	I-405 South Bay Curve Improvements \$883 M (2047)
	Sepulveda Transit Corridor, Phase 2 (Westside to LAX) 10.59 B (2057) (\$18.27 B total cost)
Multi-year Subregional Programs (in 2015 \$)	South Bay Highway Operational Improvements \$500 M (\$1.1 B total cost) (Start Date FY 2018)
	Transportation System and Mobility Improvements Program \$643.5 M (Start Date FY 2018)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_South_Bay.pdf

Figure 111

SOUTH BAY CITIES DAILY TRIPS

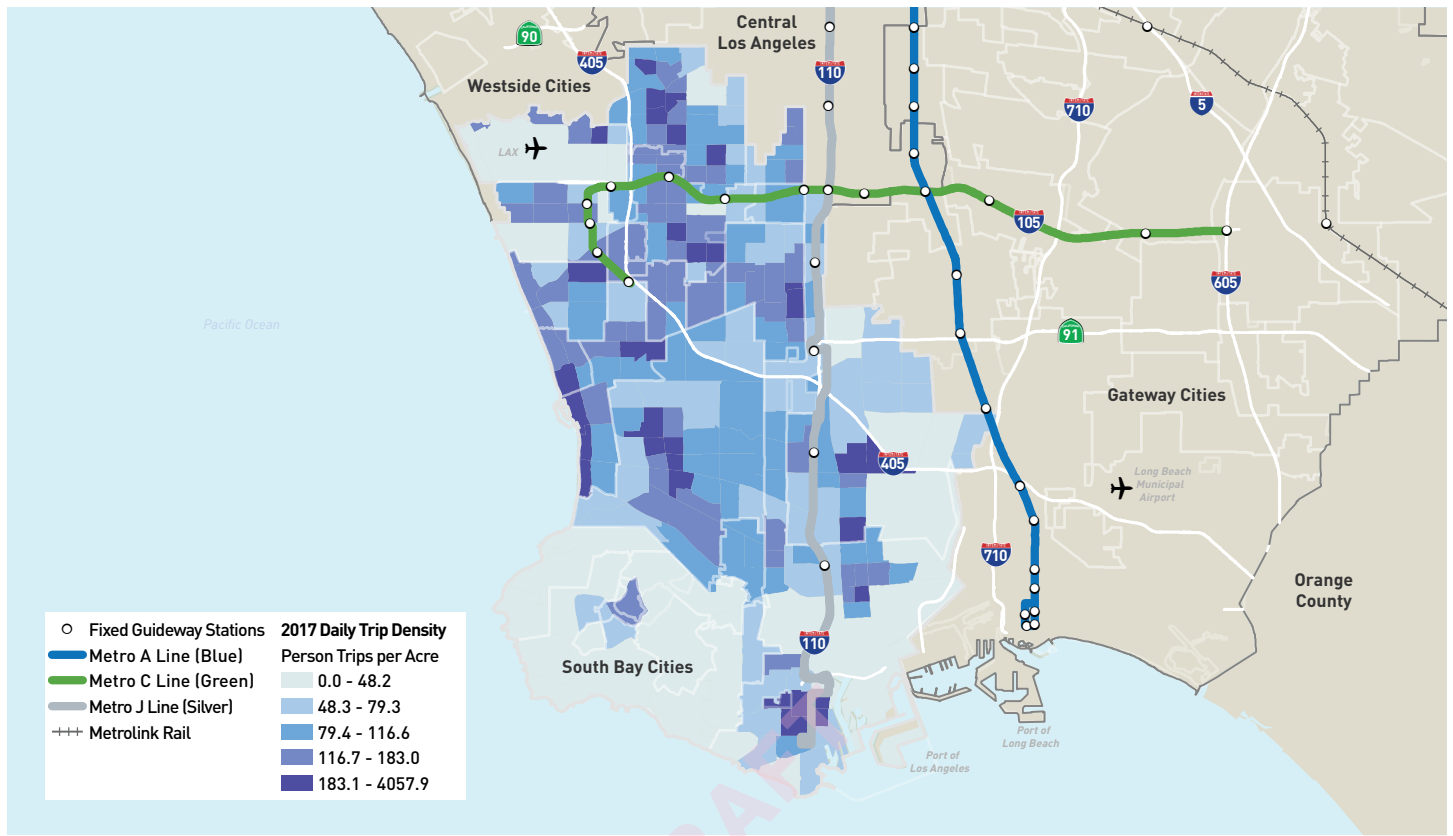


Figure 112

SOUTH BAY CITIES EMPLOYMENT DENSITY

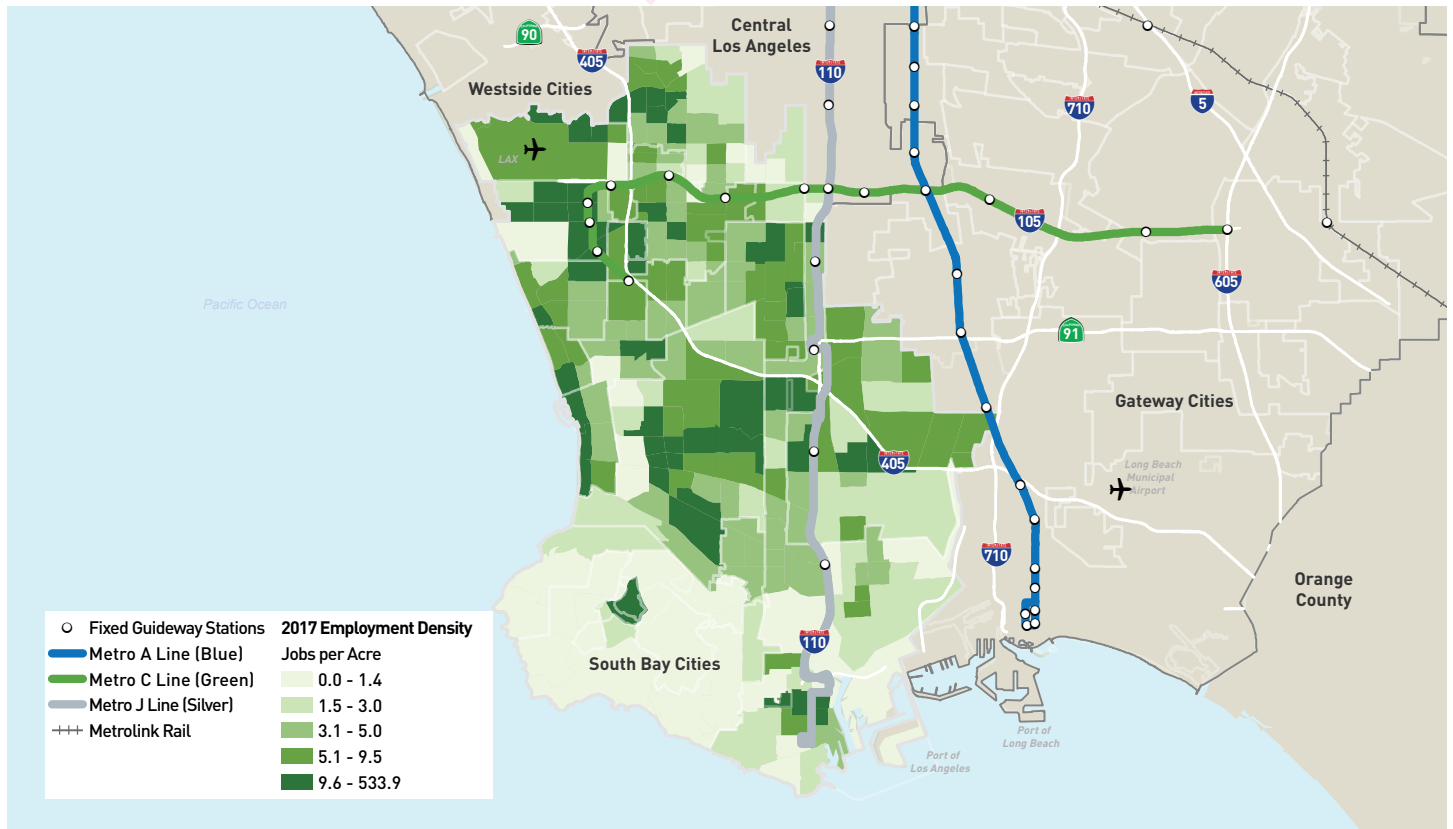


Figure 113

SOUTH BAY CITIES POPULATION DENSITY

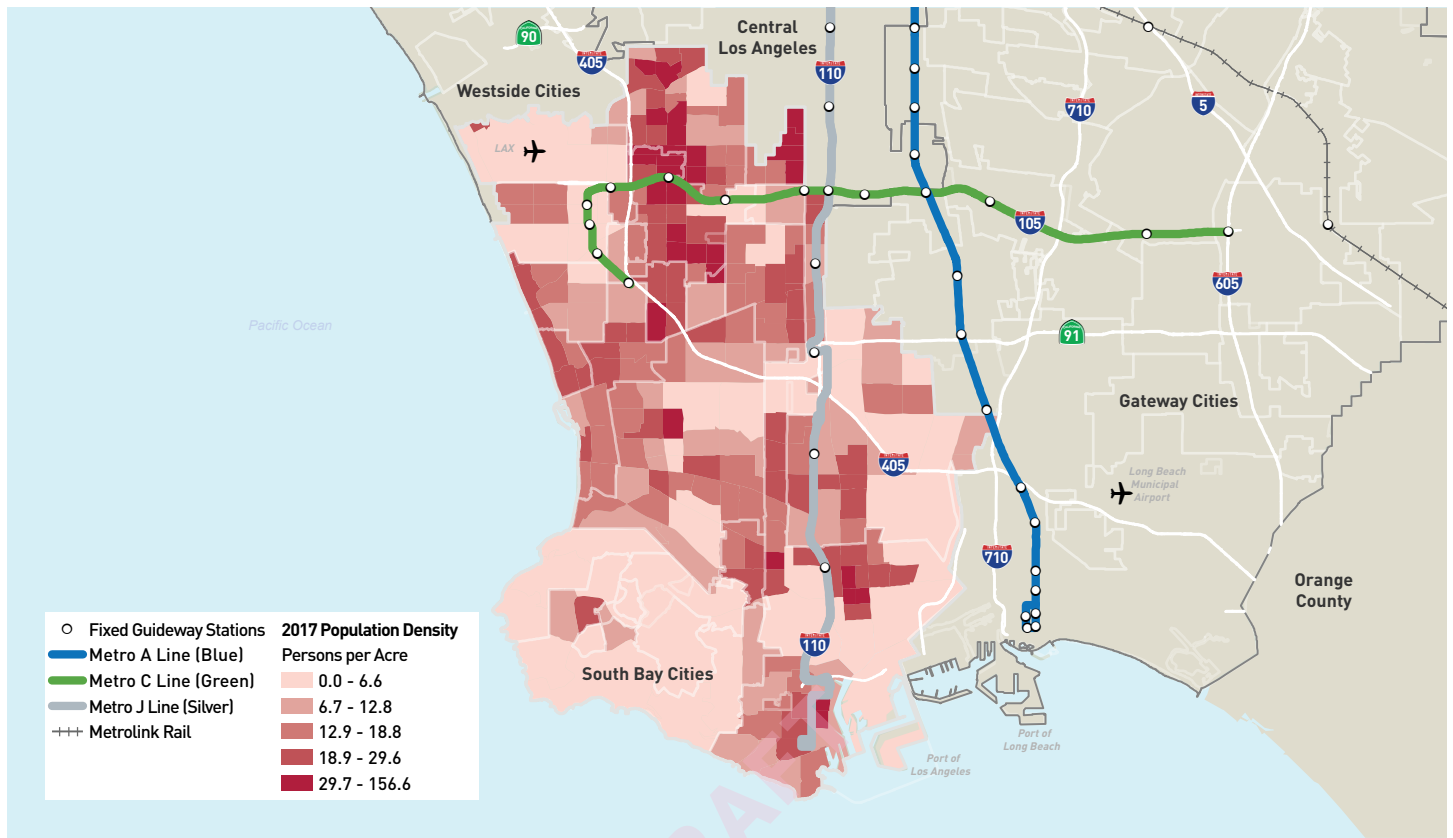


Figure 114

SOUTH BAY CITIES LAND USE

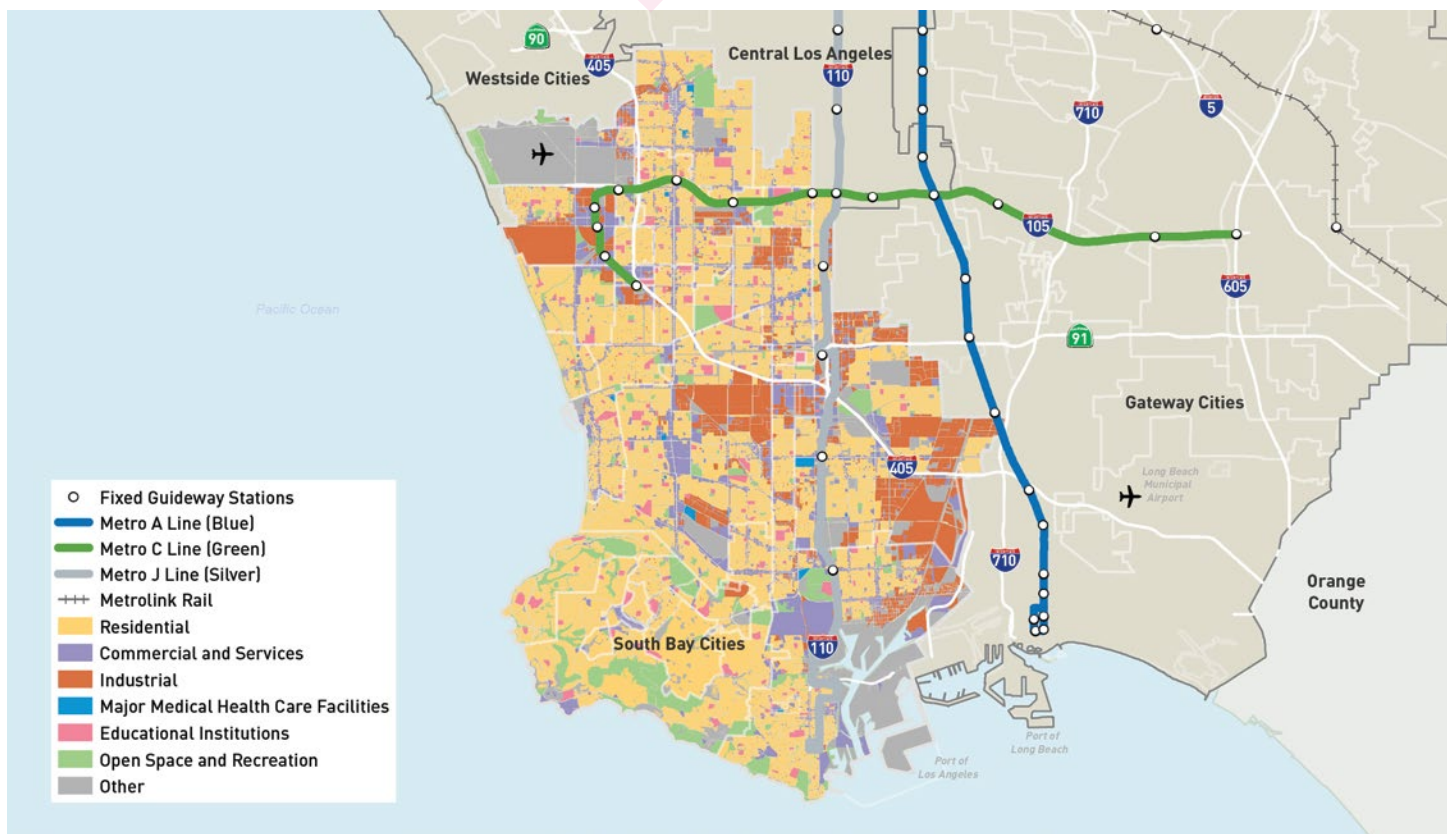
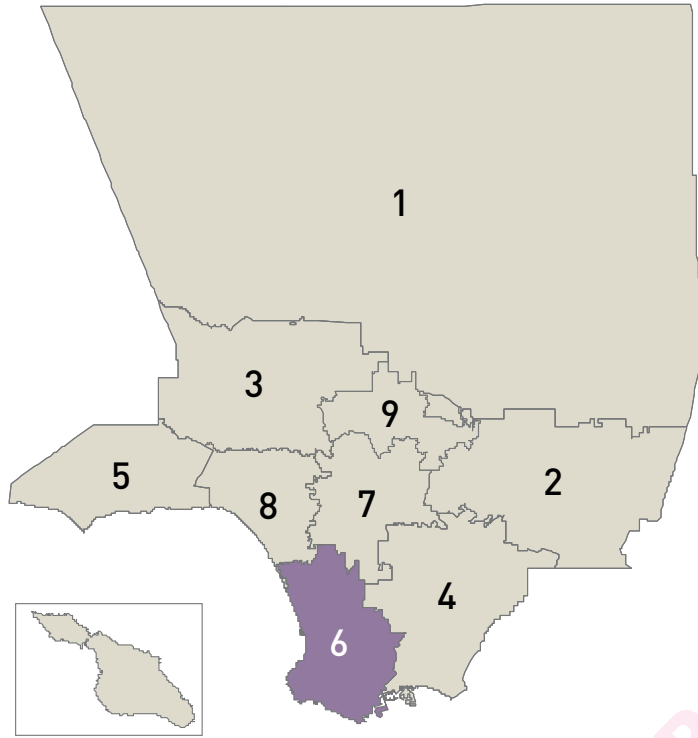


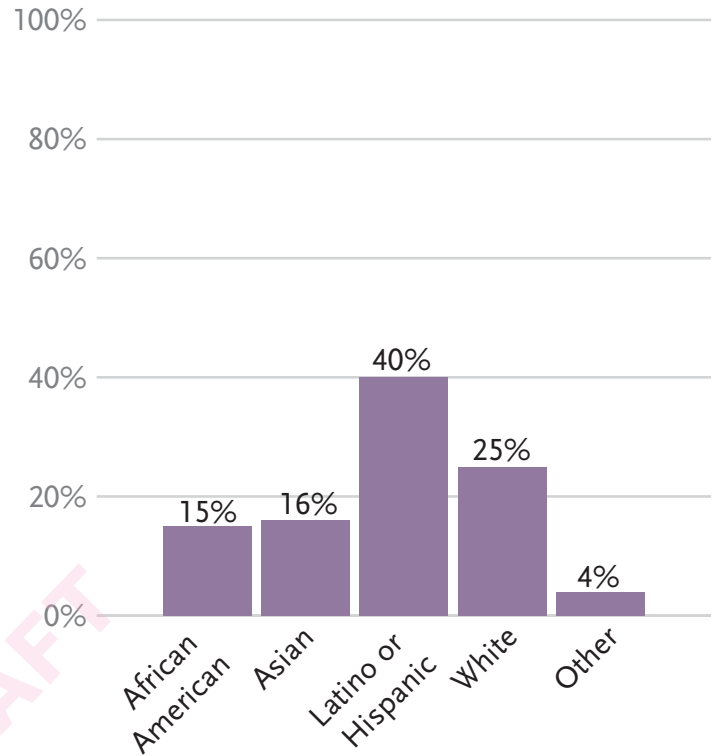
Figure 115

South Bay Cities Summary Demographics

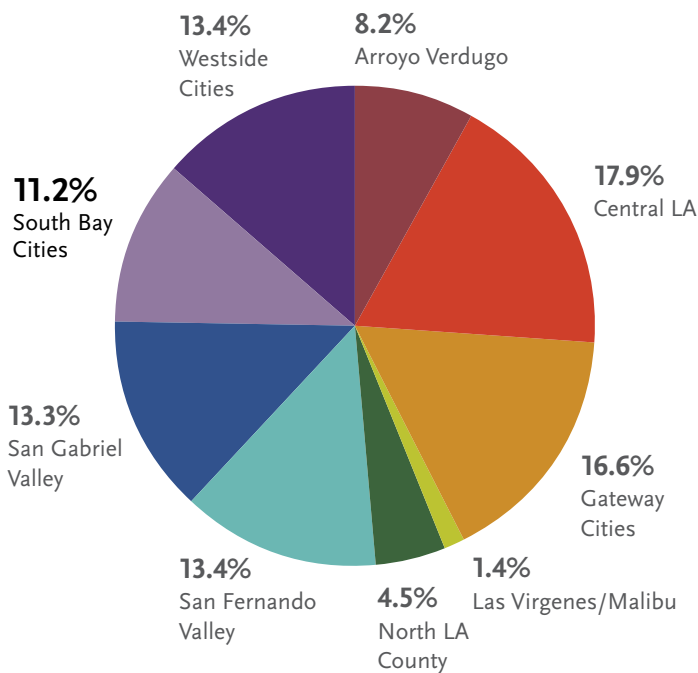
Total Area 154 Square Miles, Rank 6th
(Out of 9 Subregions)



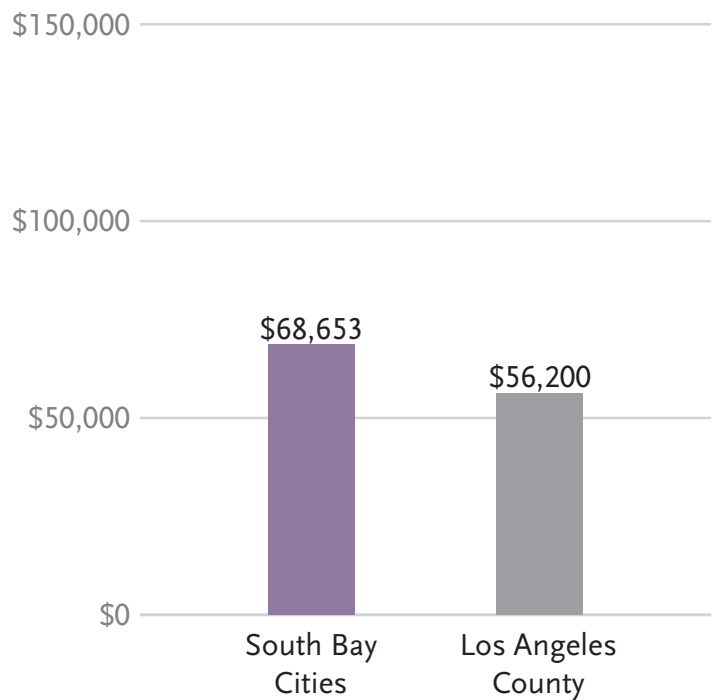
Total Population 1,050,022 People, Rank 5th



Total Employment 494,121 Jobs, Rank 6th



Median Household Income \$68,653 Average MHI, Rank 6th



Westside Cities

Westside Cities include portions of Los Angeles, Beverly Hills, Culver City, Santa Monica, and West Hollywood. Westside Cities also include the unincorporated community of Marina Del Rey.

This subregion covers 111 square miles and is home to five cities and numerous Los Angeles City communities. It includes several historical landmarks such as the Santa Monica Loeff Hippodrome, Beverly Hills Hotel, and the Werle Building.

Major Transportation Facilities

The Santa Monica Freeway (I-10), the San Diego Freeway (I-405) and Marina Freeway (SR-90) all serve the Westside area. Several major east-west and north-south boulevards parallel I-10 and I-405, providing primary access to and within the Westside area.

The area also has an extensive network of regional and local transit services provided by Metro, LADOT's Commuter Express, Santa Monica Big Blue Bus and Culver City Bus. Currently, Metro Rapid bus service operates along Wilshire Bl, La Cienega Bl, and parts of Sepulveda Bl. Big Blue Bus operates Metro Rapid service along Lincoln Bl. Metro Rail service is provided by the E (Expo) Line. These lines provide connections to the Metro D (Purple) Line at the Wilshire/Western Station, the LAX City Bus Center, the Metro Green Line, and the downtown Santa Monica transit center.

Land Use and Demographics

Roughly 10 percent of the subregion is designated for commercial/industrial land use and residential land use covers approximately 34 percent. Figure 121 below shows the varying land use for communities within the subregion. City of Los Angeles is the largest city in the subregion. The City of Beverly Hills has the highest percentage of residential land use but the City of Los Angeles has the largest total residential and commercial area in the subregion.

West Hollywood and Santa Monica have the highest trip densities in the county. Some of the Westside's neighborhoods (such as parts of Santa Monica, West Hollywood, Westwood and Venice) have population densities almost 10 times the county average. West Hollywood has the highest population, employment, and trip densities. The City of Los Angeles is the largest city in the subregion. It notably has the lowest employment density and has just 10 percent of land categorized for commercial/industrial use.

Figure 116
WESTSIDE CITIES



The subregion has some of the top educational institutions in the nation such as University of California Los Angeles. The West Los Angeles Veterans Affairs Medical Center, which is the largest facility in the Veterans Affairs health care system, is located west of UCLA. Westside Cities is the 2nd smallest subregion, ranks 7th in total population, 4th in total employment, 6th in total daily trips, and 2nd in average median household income. The subregion has non-Hispanic Whites predominantly.

Major Projects and Programs

The D Line (Purple) Extension and Airport Metro Connector are major transit projects to be built in the region in the next decade. The Westside Cities subregional program funding includes a total of more than \$360 Million for active transportation and first last mile investment.

Figure 117

Westside Cities Projects and Multi-year Subregional Programs

CATEGORIES	DESCRIPTION
Major Projects (YOE \$)	Airport Metro Connector/96th Street Station/ Green Line Ext LAX \$626 M (2024)
	D Line (Purple) Extension Section 3 \$3.22 B (\$8.44 B total cost) (2028)
	Sepulveda Transit Corridor, Phase 1 – Valley to Westside \$7.69 M (2033) and Phase 2 – Westside to LAX 10.59 B (2057) (\$18.27 B total cost)
	Crenshaw Northern Extension \$4.7 B (2047) Lincoln Bl Bus Rapid Transit (BRT) \$220 M (2047) Lincoln Bl Bus Rapid Transit
Multi-year Subregional Programs (in 2015 \$)	Active Transportation First/Last Mile Connections Program \$361 M (Start Date FY 2018)

Source: https://theplan.metro.net/wp-content/uploads/2016/09/FactSheet_Westside.pdf

Figure 118

WESTSIDE CITIES DAILY TRIPS

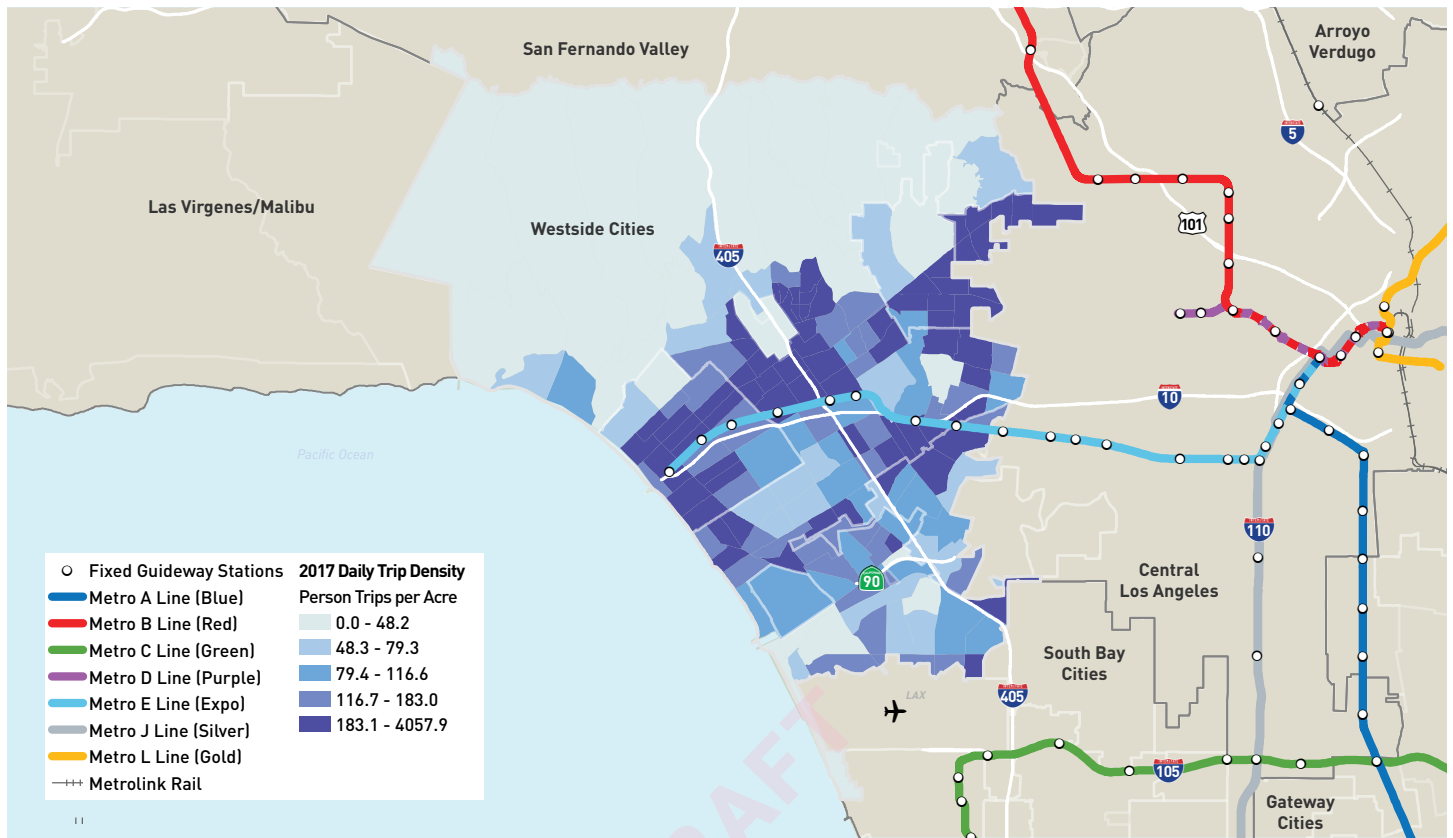


Figure 119

WESTSIDE CITIES EMPLOYMENT DENSITY

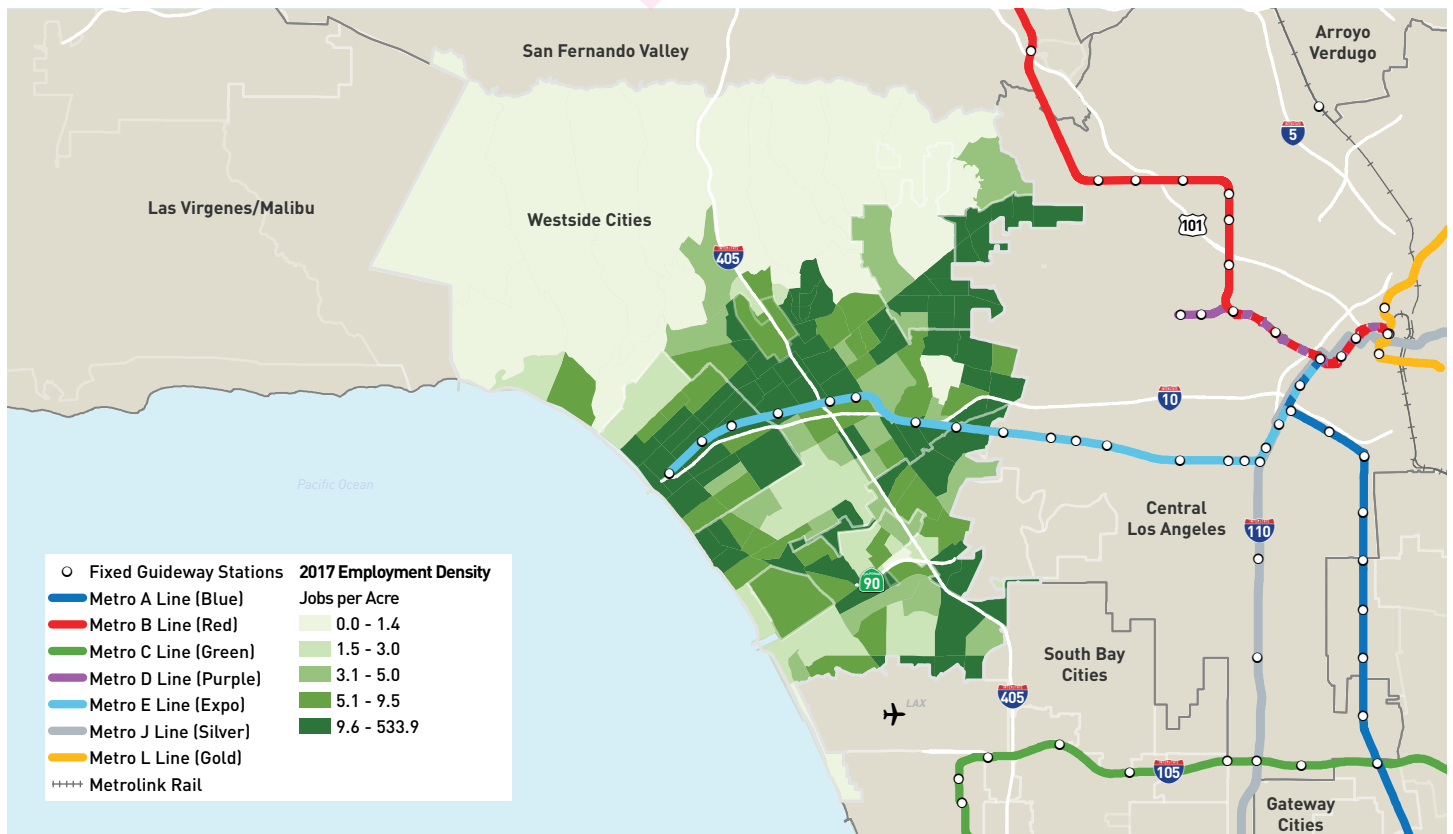


Figure 120

WESTSIDE CITIES POPULATION DENSITY

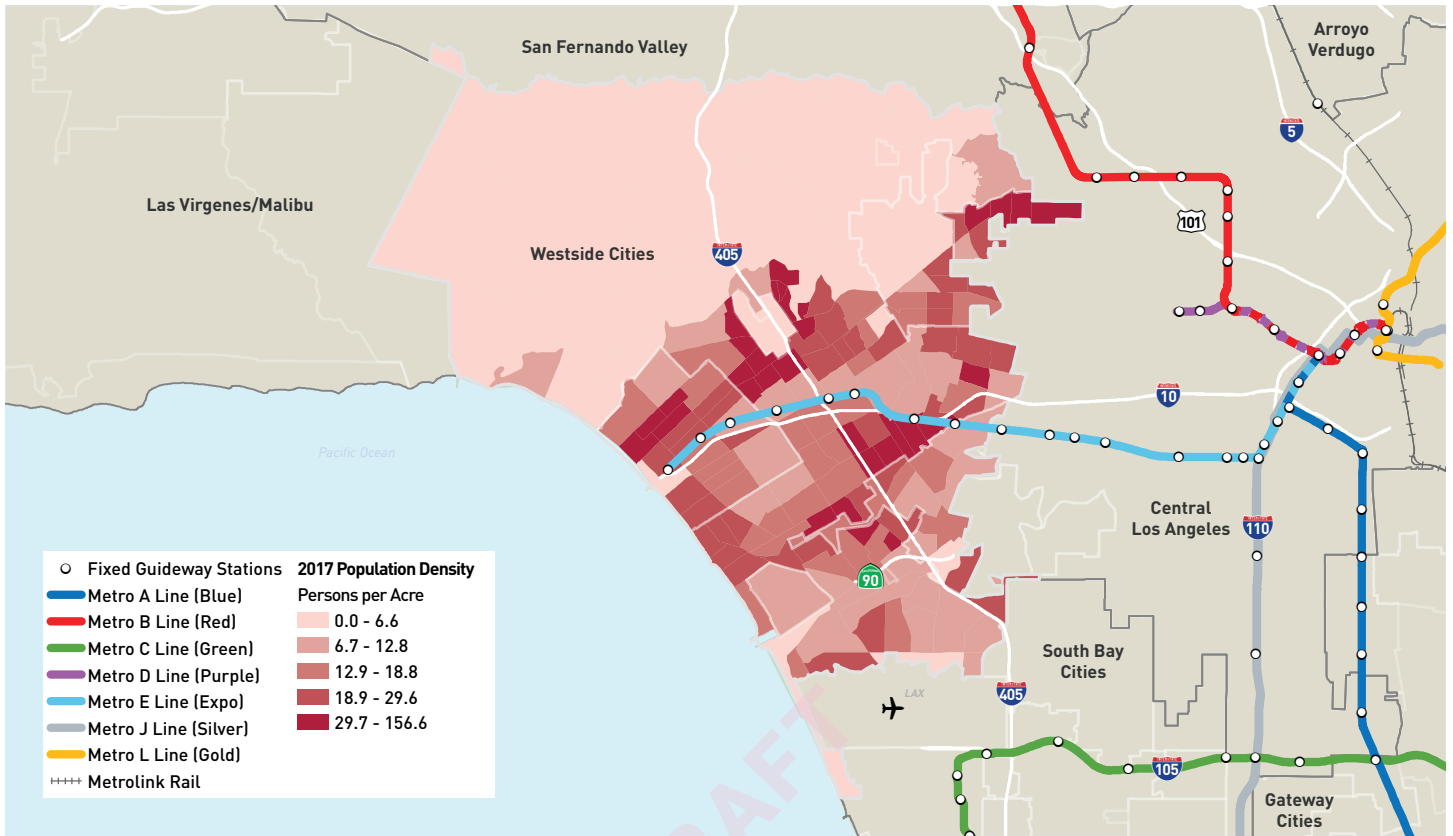


Figure 121

WESTSIDE CITIES LAND USE

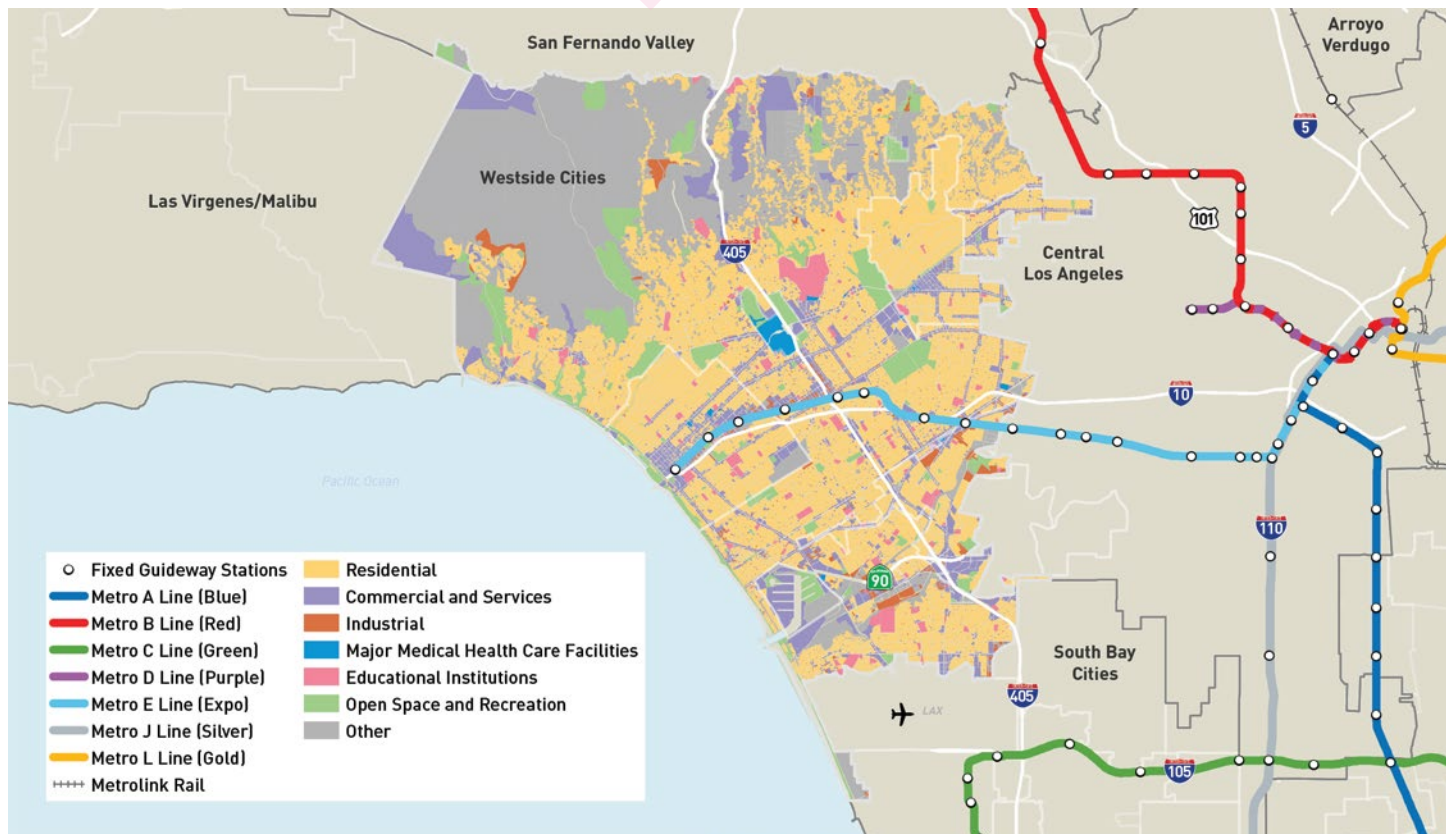
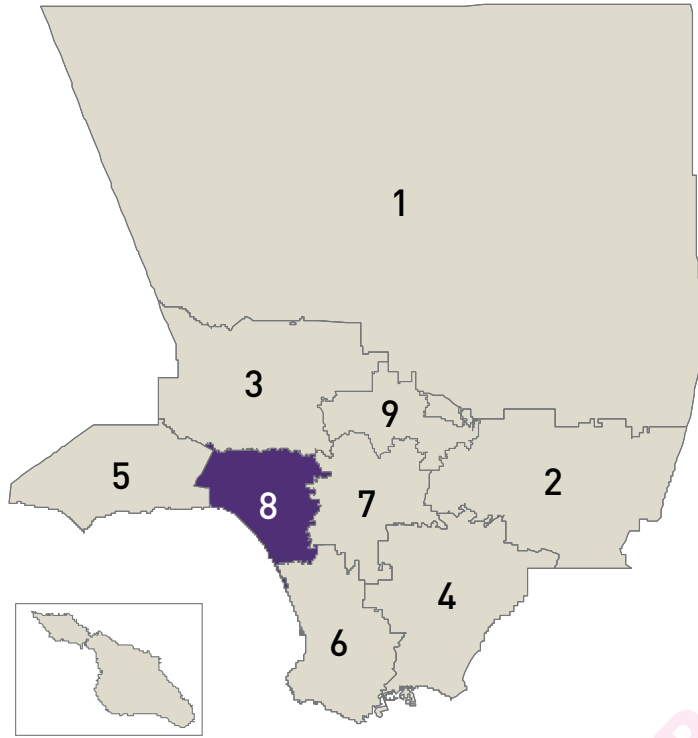


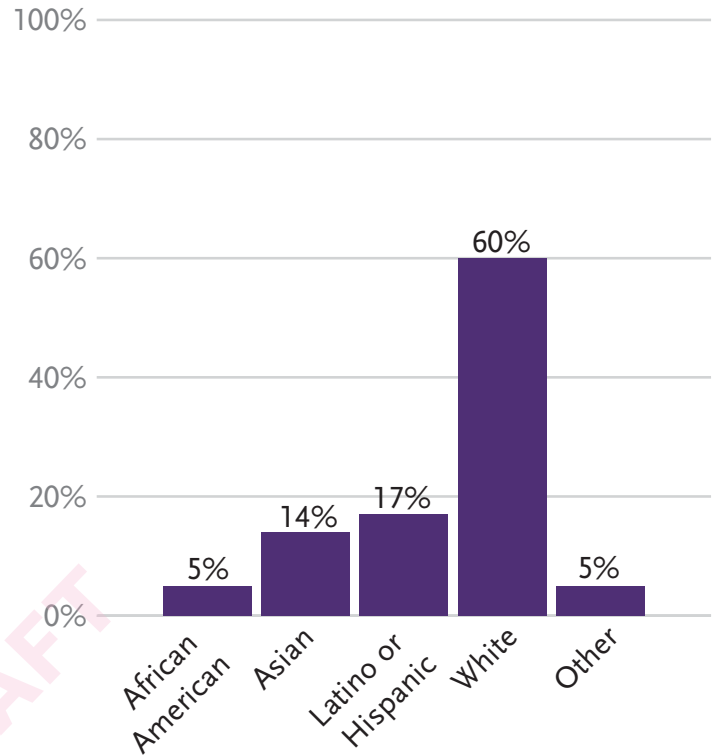
Figure 122

Westside Cities Summary Demographics

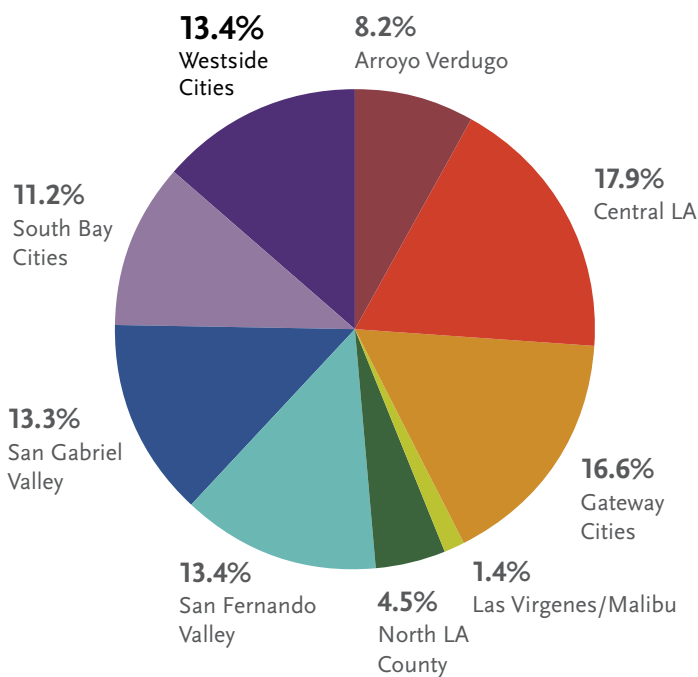
Total Area 111 Square Miles, Rank 8th
(Out of 9 Subregions)



Total Population 653,289 People, Rank 7th



Total Employment 593,697 Jobs, Rank 4th



Median Household Income \$93,182 Average MHI, Rank 4th



Glossary

511 – The National Traveler Information phone number that provides local freeway, transit, rideshare, airport, general emergency, and other traveler related services. 511 ensures that our region complies with this requirement of the federal SAFETEA-LU authorization program.

ACTIVE TRANSPORTATION – Refers to any non-motorized mode of travel such as walking, biking, and rolling. The objective is to improve mobility options, enhance quality of life, improve health and safety, and enable better access to goods and services.

ADA AMERICANS WITH DISABILITIES ACT – Federal civil rights legislation for disabled persons passed in 1990. It mandates that public transit systems make their services more fully accessible to the disabled. If persons with disabilities are not capable of accessing general public transit service, the law requires agencies to fund and provide for delivery of paratransit services which are capable of accommodating these individuals.

AQMD AIR QUALITY MANAGEMENT DISTRICT – Governmental agency established to monitor air quality within a region and to implement state and federal air quality standards through the development of regional air quality plans and regulations.

ARTERIAL STREET – A major thoroughfare, used primarily for through traffic rather than for access to abutting land, that is characterized by high-vehicular capacity and continuity of movement. The street is either divided or undivided and its main function is to carry non-local traffic at medium speeds.

AUTONOMOUS VEHICLE – A vehicle in which vehicle operation occurs without direct human driver input to control key functions such as steering, acceleration, and braking. There are various degrees of autonomy, but future systems will be principally designed so that the vehicle's passenger is not required to monitor the roadway or intervene in the operation of the vehicles in any way.

AUXILIARY LANE – The portion of the roadway adjoining the traveled way for speed change, turning, weaving, truck climbing, maneuvering of entering and leaving traffic, and other purposes supplementary to through-traffic movement.

AVO AVERAGE VEHICLE OCCUPANCY – The average number of persons occupying a passenger vehicle along a roadway segment, intersection, or area and monitored during a specified time period. For purposes of the California Clean Air Act, passenger vehicles include autos, light-duty trucks, passenger vans, buses, passenger rail vehicles and motorcycles.

BIF BUSINESS INTERRUPTION FUND – Metro's Business Interruption Fund (BIF) provides financial assistance to small "mom and pop" businesses directly impacted by transit rail construction through grants to cover certain fixed operating expenses.

BIKE SHARE PROGRAM – Metro's Bike Share system makes bikes available 24/7, 365 days a year in Downtown LA, Central LA, North Hollywood and the Westside. Metro Bike Share offers convenient round-the-clock access to a fleet of bicycles for short trips. Metro Bike Share is one of LA Metro's multiple public transportation options for Angelenos and visitors to get around.

BRT BUS RAPID TRANSIT – BRT combines the quality of rail transit with the flexibility of buses. It can operate on exclusive transitways, HOV lanes, expressways, or ordinary streets. A BRT system combines Intelligent Transportation Systems (ITS) technology, transit signal priority, rapid and convenient fare collection, enhanced transit stations, and integration with land use policy.

BSC BUSINESS SOLUTION CENTER – Metro's Business Solution Center (BSC) provides hands-on business assistance and support services to small businesses.

BTSP BICYCLE TRANSPORTATION STRATEGIC PLAN – Plan to enhance bicycling as a viable transportation mode for LA County.

BUS SPEED IMPROVEMENTS – Travel times for bus rider can be improved through the use of ITS, all-door boarding, and road design improvements such as bus-only lanes or queue jumps that give buses priority movement.

BUSWAY – A street lane which is reserved for the exclusive use of buses, either in a separated right-of-way or on a city street.

CALTRANS CALIFORNIA DEPARTMENT OF TRANSPORTATION

– Caltrans is the State's Transportation Department responsible for the design, construction, maintenance and operation of the California Highway System, including the Interstate Highway System within the state's boundaries.

CARPOOL – Arrangement in which two or more people share the use, cost or both of traveling in privately owned automobiles between fixed points on a regular basis.

CARPOOL LANE – A highway or street lane reserved for carpools and other high occupancy vehicles.

CHP CALIFORNIA HIGHWAY PATROL – The statewide law enforcement agency responsible for the management and regulation of traffic on Caltrans-designated freeways and highways to achieve safe, lawful and efficient use of the highway system.

CLIMATE CHANGE – A shift in global weather patterns resulting in an increase in the variability of temperature, precipitation, and wind in a region over a period of time. Recent studies suggest that emissions from gasoline powered internal combustion engines contribute to global climate warming, with 40% of GHG emissions attributable to transportation.

CMAQ CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM – Federal funds available for either transit or highway projects that contribute significantly to reducing automobile emissions which cause air pollution. Established by the Intermodal Surface Transportation Efficiency Act.

COMMUTER RAIL – Fixed-rail public transit system, generally utilizing heavy rail and track and providing service within a region. Metrolink is the commuter rail service in LA County.

COMPLETE STREETS – A comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, users and operators of public transit, bicyclists, persons with disabilities, seniors, children, motorists, users of green modes, and movers of commercial goods.

COMPLETE STREETS POLICY – Adopted in 2014, Complete Streets is a high level policy direction that helps redefine how transportation agencies approach streets and highways so that the outcome is a transportation system that balances the needs of all users, regardless of age, ability, or mode of transportation.

CONGESTION PRICING – Congestion pricing is the concept of charging for the use of a transportation facility, such as a roadway, based on the level of congestion. The greater the level of congestion, usually occurring during morning and evening rush hours, the higher the cost to use the facility. The ultimate goal is to reduce traffic congestion and to dramatically improve equity, mobility, and environmental outcomes.

CONSTRAINED PLAN – Constrained Plan means our committed investments are programmed to match our anticipated funding.

CSP COUNTYWIDE SIGNAL PRIORITY PROGRAM – The Countywide Signal Priority (CSP) Program is the largest implementation of multi-jurisdictional signal priority in the nation. It established transit signal priority standards and is broadly adopted in LA County.

DBE DISADVANTAGED BUSINESS ENTERPRISE – A company is a DBE if it falls under the following general guidelines: the three-year average annual gross receipts are less than \$23.98 million, the personal net worth of each owner is less than \$1.32 million – excluding the equity in his or her primary residence, the company is an independent business, not a subsidiary and it is a for-profit business. Additionally, at least 51% of the company must be owned by one or more individuals that belong to one of the following socially and economically disadvantaged groups: African Americans, Hispanics, Native Americans, Asian Pacific Islanders, Subcontinent Asian Americans and non-minority women.

DRAYFLEX – DrayFLEX stands for Drayage, Freight, and Logistics Exchange and it is a technology application that provides freight-specific dynamic travel planning information to improve container movement in and around the Ports of Los Angeles and Long Beach.

DVBE DISABLED VETERANS BUSINESS ENTERPRISE

– A company is a DVBE if the business is at least 51% owned by one or more disabled veterans, and if the daily business operations are managed and controlled by one or more disabled veterans

DYNAMIC PRICING – A toll collection strategy where tolls are continuously adjusted throughout the day according to traffic conditions to maintain a minimum designated speed.

ENVIRONMENTAL JUSTICE – The term stems from a 1994 presidential executive order to promote equity for disadvantaged communities and promote the inclusion of racial and ethnic populations and low-income communities in decision-making. Local and regional transportation agencies must ensure that services and benefits, as well as burdens, are fairly distributed to avoid discrimination.

EQUITY – Equity is both an outcome and a process to address racial, socio-economic, and gender disparities, to ensure fair and just access – with respect to where you begin and your capacity to improve from that starting point – to opportunities, including jobs, housing, education, mobility options, and healthier communities. It is achieved when one’s outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic, or social identities. It requires community informed and needs-based provision, implementation, and impact of services, programs, and policies that reduce and ultimately prevent disparities.

EQUITY FOCUS COMMUNITIES (EFCS) – Communities identified to measure and track future equity impacts from a transportation perspective.

EQUITY PLATFORM – Metro’s multi-point platform provides a basis for Metro to actively lead and partner in addressing and overcoming disparities. It is based on an equity framework involving four key objectives: 1) Define & Measure, 2) Listen & Learn, 3) Focus & Deliver, and Train & Grow.

EXPRESSLANES – Metro ExpressLanes is a program designed to improve traffic flow and provide enhanced travel options in LA County. Tolls on the ExpressLanes are calculated using Congestion Pricing. Congestion pricing provides an opportunity to sell some of the additional capacity on the ExpressLanes to those willing to pay a toll and maximizes efficiency of the entire freeway.

FIXED GUIDEWAY – System of vehicles that can operate only on its own guideway constructed for that purpose (e.g. commuter rail, light rail).

FLM FIRST/LAST MILE – An individual trip is understood as the entire journey from origin to destination. Individuals may use a number of modes (types) of transport to complete a journey (walk, drive, ride, or roll).

FLM FIRST/LAST MILE STRATEGIC PLAN – The Plan is Metro’s approach for identifying barriers and planning and implementing improvements for the first/last mile portion of an individual trip.

FSP FREEWAY SERVICE PATROL – Towing services funded by Metro to remove stalled vehicles from freeway lanes, especially during peak periods. The FSP also assists stranded motorists who may have run out of gas or need to change a tire.

GCP GREEN CONSTRUCTION POLICY – Metro’s GCP aims to improve air quality through the implementation of best practices during planning, construction, operations, and procurement activities.

GHG GREENHOUSE GAS – Greenhouse gas is any gas including carbon dioxide, methane and ozone, whose absorption of solar radiation is responsible for the greenhouse effect, in which the atmosphere allows incoming sunlight to pass through but absorbs heat radiated back from the earth’s surface. Greenhouse gases act like a heat-trapping blanket in the atmosphere, causing climate change.

GHGE GREENHOUSE GAS EMISSIONS – Greenhouse gas emissions are gases that trap heat in the atmosphere. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities.

GOODS MOVEMENT STRATEGIC PLAN – The plan is a strategic framework to guide goods movement-related planning activities, investments, partnerships and decision-making.

GUIDEWAY – Facility housing a transit system, either a subway tunnel, at-grade trackway or busway, or aerial structure. Also see Fixed guideway.

HIGHWAY – A freeway or expressway which provides limited access for inter-regional or interstate travel or a major arterial which has been designated as part of the state highway system.

HOT LANE HIGH-OCCUPANCY/TOLL LANE – A designated carpool lane that motorists driving alone can use if they pay a toll, allowing them to avoid traffic delays in the adjacent regular lanes. Toll-paying drivers and toll-free carpools/vanpools share the lane, increasing the number of total vehicles using the HOV/HOT lane and generating revenues that can be used for transportation improvements.

HOV HIGH-OCCUPANCY VEHICLE – Any transportation vehicle carrying more than one person for travel purposes. This may include an automobile, bus, or train.

HOV LANE HIGH-OCCUPANCY VEHICLE LANE – A freeway lane reserved for use by vehicles carrying a specified minimum number of passengers, including buses, vanpools, and carpools. Motorcycles and certain alternatively-fueled vehicles are also permitted to use the lanes.

ICM INTEGRATED CORRIDOR MANAGEMENT – An ITS strategy to manage the capacity of a corridor utilizing existing and new technologies. ICM involves the close coordination and strategic planning of the multiple agencies and service providers in the area to manage traffic congestion on highways, arterials, and/or transit routes. ICM often enhances the communication between independent systems and provides alternate solutions to moving persons through an impacted area.

INTERMODAL – The term “mode” represents one method of transportation, such as automobile, transit, ship, bicycle or walking. Intermodal refers specifically to transportation trips using multiple modes.

ITS INTELLIGENT TRANSPORTATION SYSTEMS – Technical innovations that apply communications and information processing to improve the efficiency and safety of ground transportation systems.

JD JOINT DEVELOPMENT – As part of the real estate development program, Metro’s JD collaborates with qualified developers to build transit-oriented developments on Metro-owned properties.

KISS AND RIDE – kiss and ride is the transfer point or area in which cars can stop briefly to discharge or, less commonly, pick up passengers.

LACDPW LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS – The transportation department for the County of Los Angeles.

LADOT LOS ANGELES DEPARTMENT OF TRANSPORTATION – The transportation department for the City of Los Angeles.

LIFE PROGRAM – The Low-Income Fare is Easy program provides transportation assistance to low-income individuals in LA County. The program offers fare subsidies that may be applied toward the purchase of fare on Metro or any participating agencies.

LRTP LONG RANGE TRANSPORTATION PLAN – Metro’s plan to assess future population increases projected for the county and what such increases will mean for future mobility needs. The plan recommends what can be done within anticipated revenues, as well as what could be done if additional revenues became available. The 2009 LRTP is an update to the 2001 Long Range Transportation Plan for future transportation investments in LA County through 2040.

MAAS MOBILITY AS A SERVICE – Mobility as a Service (MaaS) is the integration of various forms of transport services into a single mobility service accessible on demand.

MEASURE M – A sales tax initiative approved by LA County voters in 2016 titled the Los Angeles County Traffic Improvement Plan. Measure M is a one-half cent sales tax to be used to ease traffic congestion, expand rail/subway/bus; improve jobs/school/airport connections; and create jobs among other goals.

MEASURE R – A sales tax initiative approved by LA County voters in 2008. Measure R established a one-half cent sales tax to be used for public transportation purposes, ending in 2039.

METRO RAIL – Metro's light rail and subway transit system.

METRO RAPID – Metro's Bus service on key transit corridors with several attributes to provide faster bus service including a distinctive look, traffic signal priority and fewer stops.

METROLINK – Southern California's regional commuter rail system connecting Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Service began in October 1992.

MICRO MOBILITY – Micromobility refers to the use of electronic scooters and bikes to travel shorter distances around cities, often to or from another mode of transportation (bus, train, or car). Users typically rent such a scooter or bike for a short period of time using an app.

MICROTRANSIT – IT-enabled private multi-passenger transportation services that serve passengers using dynamically generated routes, and may expect passengers to make their way to and from common pick-up or drop-off points.

MOD MOBILITY ON DEMAND – Mobility on Demand is an innovative, user-focused approach which leverages emerging mobility services, integrated transit networks and operations, real-time data, connected.

MODE SHARE – Indicates the share of a transportation mode utilized by people for their transportation trips as compared to other modes and all of a region's transportation trips as a whole.

MPH MILES PER HOUR – Speed described as the distance traveled in one hour.

MSP MULTI-YEAR SUBREGIONAL PROGRAM – MSP is established under Measure M to provide Measure M programming funding for subregions in LA County based on the MSP guidelines.

MTP MICROTRANSIT PILOT PROJECT –

Metro's MicroTransit Pilot is an innovative, three-year pilot project that will use professionally trained Metro employees to provide on-demand shared rides in smaller vehicles for short trips in six designated service areas in LA County.

MULTIMODAL – A transportation system which employs a combination of modes, such as highway, bus, rail, high occupancy vehicles, bikeway, and pedestrian and demand management systems.

NAVILENS – NaviLens is an audio wayfinding technology to assist and aid the autonomy of blind and visually impaired travelers in Union Station.

O&M OPERATIONS AND MAINTENANCE –

These are the costs associated with the regular running of a transportation facility or service, including labor, vehicle maintenance, operations and overall facility maintenance.

PARATRANSIT – Flexible forms of transportation services that are not confined to a fixed route. Paratransit is generally used to provide service for people with disabilities in compliance with the Americans with Disabilities Act of 1990 (ADA).

PARKING MANAGEMENT – To support the implementation of a balanced TDM program, parking management is essential in working in tandem in significantly reducing automobile travel by removing free parking at high parking demand and congested destinations.

PEAK PERIOD – The period during which the maximum amount of travel occurs. It may be specified as the morning (AM) or afternoon or evening (PM) peak.

PM PARTICULATE MATTER – Mixture of extremely small particles and liquid droplets made up of a number of components, including acids, organic chemicals, metals, and soil or dust particles. The size of the particles is directly linked to their potential for causing health problems. Of particular concern are those particles that are ten micrometers in diameter or smaller that can be inhaled into the lungs and potentially cause serious health effects.

PROP A – Proposition A is a sales tax initiative approved by the LA County voters in 1980. The proposition established a one-half cent sales tax to be used for public transportation purposes.

PROP C – Proposition C is a sales tax initiative approved by the LA County voters in 1990 that established a one half-cent sales tax to be used for public transportation purposes.

RAMP METERING – A freeway to which access is controlled by entrance ramp signals that use fixed-time signal settings or is regulated by a computerized surveillance system. This procedure is used to prevent freeway congestion.

RIDESHARE – The term generally refers to carpooling and vanpooling.

RIDESHARING – Two or more persons traveling by any mode, including but not limited to, automobile, vanpool, bus, taxi, jitney, and public transit.

RIITS NETWORK REGIONAL INTEGRATION OF INTELLIGENT TRANSPORTATION SYSTEMS – Metro sponsors the network. Caltrans, LADOT, California Highway Patrol and Metro all contribute information collected through their own Intelligent Transportation Systems. The network supports information exchange in real-time between freeway, traffic, transit and emergency service agencies to improve management of the LA County transportation system and better serve the traveling public.

RTPA REGIONAL TRANSPORTATION PLANNING AGENCY – A state-designated agency responsible for preparing the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP), administering state funds, and other regional transportation planning tasks.

SB 1 – Signed into law on April 28, 2017, new revenues focus on road safety improvements, repair local streets, expand public transit, improve highways, build bridges and overpasses. Also provides \$5.4 billion per year over the next decade to fund transportation improvements.

SB 1 SGR STATE OF GOOD REPAIR – These funds are available for eligible transit maintenance, rehabilitation, and capital projects and are based on a distribution formula using State Transit Assistance Funds (STA).

SBE SMALL BUSINESS ENTERPRISE – A company is an SBE if it falls under the following general guidelines: the three-year average annual gross receipts are less than \$23.98 million, the personal net worth of each owner is less than \$1.32 million – excluding the equity in his or her primary residence, the company is an independent business, not a subsidiary and it is a for-profit business.

SCAG SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS – SCAG is the federally-designated Metropolitan Planning Organization (MPO) for six counties (Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial). It is the regional agency responsible for developing a regional transportation plan for the six-county region.

SCAQMD SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT – A regional agency which adopts and enforces regulations to achieve and maintain state and federal air quality standards. It is responsible for preparing the Air Quality Management Plan (AQMP) for the South Coast Air Basin. Also known as the AQMD.

SCRRA SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY – The five county regional joint powers authority responsible for the operation of the Metrolink commuter train service.

SHOPP STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM – The state funding category used by Caltrans to maintain and operate state highways.

SRTP SHORT RANGE TRANSPORTATION PLAN – The 2014 Short Range Transportation Plan focuses on the phasing of transportation improvements through 2024 and relies on performance-based modeling to identify the best solution for each mobility challenge.

SIGNAL SYNCHRONIZATION – Traffic signal

synchronization refers to the functioning relationship between active signals along a corridor. A common cycle length is established for all intersections in the coordinated system. By maintaining a constant relationship between the signals at all times, there is a greater likelihood that mobility will be improved. This does not mean that the signals will provide a green light at the same time for the entire length of a corridor; rather, that each signal will quite literally be synchronized with the entire system, allowing for more efficient mobility.

SMART GROWTH – A set of policies and programs designed to protect, preserve and economically stimulate established communities while protecting valuable natural and cultural resources and limiting sprawl.

SOUNDWALL – Noise control walls and barriers built between highways and nearby homes that can reduce noise levels by 10-15 decibels.

SOV SINGLE-OCCUPANT VEHICLE – A vehicle with only one occupant. Also known as a “drive alone.”

SUBREGIONS – The nine geographic subregions of LA County include Arroyo Verdugo, Central Los Angeles, Gateway Cities, Las Virgenes/Malibu, North Los Angeles County, San Fernando Valley, San Gabriel Valley, South Bay Cities and Westside Cities.

SUSTAINABILITY – A manner to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

TAM TRANSIT ASSET MANAGEMENT – A business model that uses the condition of assets to guide the optimal prioritization of funding at transit properties in order to keep transit networks in a State of Good Repair.

TAP TRANSIT ACCESS PASS – Transit pass, a plastic card with an embedded smart card chip, is designed to apply fare payments at fareboxes, ticket vending machines, and other participating agencies.

TDM TRANSPORTATION DEMAND MANAGEMENT

– Involves various strategies aimed at increasing the efficient use of transportation systems. The benefits focus on reducing single occupancy vehicles, road and parking congestion, pollution reduction, and increasing transit ridership, and more efficient land use.

TNC TRANSPORTATION NETWORK COMPANY

– Transportation Network Companies provide prearranged transportation services for compensation using an online-enabled application or platform (such as smart phone apps) to connect drivers using their personal vehicles with passengers.

TOC TRANSIT ORIENTED COMMUNITIES –

TOCs include land use planning and community development policies that maximize access to transit as a key organizing principle and acknowledge mobility as an integral part of the urban fabric.

TOC POLICY – In June 2018, the Metro Board adopted the TOC Policy in an ambitious effort to formalize Metro’s commitment to partner with the 88 cities and unincorporated areas in LA County to support “TOC activities.”

TOD TRANSIT ORIENTED DEVELOPMENT – A type of development that links land use and transit facilities to support the transit system and help reduce sprawl, traffic congestion and air pollution. It calls for locating housing, along with complementary public uses (jobs, retail and services) at strategic points along a transit line.

TRANSITWAY – A transportation corridor dedicated for exclusive or preferential use by public transit vehicles, including rail vehicles, buses, carpools and vanpools.

TRANSPORTATION INFRASTRUCTURE – Transportation infrastructure generally refers to the built transportation system including highways, bridges, railways, ports, and transit facilities. Infrastructure for “transit” systems includes the fixed components of the transit system, such as rights-of-way, buses and rail vehicles, tracks, signal equipment, stations, park-and-ride lots, bus stops and maintenance facilities.

TSM TRANSPORTATION SYSTEM MANAGEMENT

– That part of the urban transportation planning process undertaken to improve the efficiency of the existing transportation system by better managing the system. The intent is to make better use of the existing transportation system by using short-term, low-capital transportation improvements that generally cost less and can be implemented more quickly than major capital projects.

U-PASS THE UNIVERSAL COLLEGE STUDENT

TRANSIT PASS – The U-Pass provides college students of participating schools with greater fare discounts and an expedited activation process that is administered directly on campus.

VANPOOL – A vanpool is a group of five to 15 commuters who regularly travel together to work in a comfortable van, minivan, or SUV, at least three days per week.

VEHICLE OCCUPANCY – The number of people aboard a vehicle at a given time; also known as auto or automobile occupancy when the reference is to automobile travel only.

VEHICLE TRIP – A one-way movement of a vehicle between two points.

VMT VEHICLE-MILES TRAVELED – The number of miles that vehicles are driven over a certain time period (usually a day or a year). VMT are key data for highway planning and management, and a common measure of roadway use. This data allows analysts to estimate on-road vehicle fuel consumption, congestion, air quality, and potential gas-tax revenues.

VSH VEHICLE SERVICE HOURS – The total hours of revenue service operated by transit service vehicles. This does not include deadhead hours.

WIN-LA WORKFORCE INITIATIVE NOW IN

LOS ANGELES – WIN-LA is Metro's workforce development program created to focus on careers in the transportation industry.

ZERO EMISSIONS – Refers to a type of engine or energy source that emits no waste products that pollute the environment and does not contribute to climate change.

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Attachment C - L RTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
Gateway Cities Council of Govts	146	<u>Page 6</u> – The discussions on changing mobility needs should include the changing state of the commute and trends away from eight-to-five commutes. Also, there should be an examination on the future of telecommuting and whether the work-from-home trend will remain in some form that will impact mobility.	The L RTP was developed prior to the onset of the COVID-19 pandemic. The L RTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the L RTP, including the impacts on Metro's financials, operations, and other efforts. The L RTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The L RTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The L RTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the L RTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.
	147	<u>Page 8</u> – The monotone maps are ineffective when less than the full page.	The map style and map contents were reviewed prior to the adoption of the L RTP. We will share this comment with the appropriate project and design teams.
	148	<u>Page 9</u> – The addition of general purpose lanes can be a workable solution that is not disruptive or expensive.	This will be addressed in the final L RTP prior to adoption.
	149	<u>Page 11-13</u> – Does this plan assume that all of the Measure R & M priorities are built and the expanded programs such as ExpressLanes and active transportation networks make the capital program successful? Some of the strategies are going to be difficult to implement such as VMT pricing and may work against equity factors by placing an undue burden on the working poor.	The bold policies outlined in the recommended L RTP are subject to change and will require additional studies to determine the full cost to implement and maintain. The bold policies outlined in the L RTP cannot be achieved alone. They will require partnerships with local and regional stakeholders, as well as buy-in from elected officials and the general public. The full assumptions included in the L RTP analysis are included in the L RTP Technical Document; however, the implementation of any given bold policy or program will require additional analysis to understand the full impacts.
	150	<u>Page 14</u> – Sustainability was a major concern in 2009, is it still a priority or has it been incorporated into other concerns such as reduced congestion?	Sustainability is still a major priority in this L RTP; however, it is now a guiding principle as opposed to a priority area. Metro believes that environmental sustainability, like equity, should carry through to each strategy and action. Additionally, several specific sustainability actions are detailed under the Better Transit, Less Congestion, and Complete Streets priority areas.
	151	<u>Page 20</u> – It would be helpful to have an appendix with project descriptions. "Strategy 1.1d. Identify and Plan Future Metro rail expansion," point of clarification: Does this refer to projects in the latter years of the Measure M plan, or are these meant to be projects that have yet to be defined?	This is addressed in the L RTP Technical Document.
	152	<u>Page 24</u> – "Strategy 1.4: Enhanced Station Area." Are these recommendations something that will be included in the station area design or will it be an add-on the cities are responsible for? Will there be funding and opportunities to retrofit other older lines?	This is not directly addressed in the L RTP. We will forward your question on to the appropriate department at Metro.
	153	<u>Page 25</u> – "Strategy 1.6: Enhance Customer Experience." Protection and cleaning for COVID-19 should be a stated strategy. Clean comfortable and safe has taken on new meaning.	The L RTP was developed prior to the onset of the COVID-19 pandemic. The L RTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the L RTP, including the impacts on Metro's financials, operations, and other efforts. The L RTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The L RTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The L RTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the L RTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.
	154	<u>Page 32</u> – Caltrans should be identified as the owner/operator of the highway system to set context. Additionally, there should be mention of the subsidies for lower-income ExpressLane users.	This will be addressed in the final L RTP prior to adoption.
	155	<u>Page 34</u> – An appendix explaining how project costs were calculated would be helpful.	The L RTP Technical Document will include details on project costs and financial model assumptions
	156	<u>Page 37</u> – "Strategy 2.1: Implement operational improvements with technology." There should be mention of advanced freight ITS to improve truck flow and safety.	This will be addressed in the final L RTP prior to adoption.
	157	<u>Page 38</u> – "Strategy 2.4: Minimize impact of roadway incidents." Expansion of the Freeway Service Patrol should include the expansion of big rig tow service on major truck impacted freeways in the Gateway Cities, North County and San Gabriel Valley.	This will be addressed in the final L RTP prior to adoption.
	158	<u>Page 38</u> – "Strategy 2.5: Support Efficient Goods Movement." This goal should be rewritten to read "support efficient and sustainable goods movement." Goods movement projects and the LA County Goods Movement Strategy must emphasize air quality improvement, safety and freight efficiency. The description of the goods movement plan is good but the environmental emphasis is not in the state strategy.	This will be addressed in the final L RTP prior to adoption.
	159	<u>Page 40</u> – "Strategy 2.7: Enhance the operation of the state highway system." The word "safety" should be inserted in this strategy; capacity improvement and safety need to be joined.	This will be addressed in the final L RTP prior to adoption.
	160	<u>Page 46</u> – There should be a discussion of the local and subregional efforts and complete streets efforts going on through the county in addition to the major bikeway initiatives.	This will be addressed in the final L RTP prior to adoption.
	161	<u>Page 48</u> – "Strategy 3.3: Establish active transportation improvements as integral elements of the transportation system." Add a strategy to implement First/Last Mile active transportation projects to all new, planned and under-construction rail lines.	We believe this element is addressed appropriately elsewhere in the L RTP.
162	<u>Page 50</u> – "Strategy 3.4: Maintain a state of good repair on roadways." This requires clarification as it is slightly confusing with the Caltrans SHOPP program. Combining and coordination of projects makes sense.	We believe this element is addressed appropriately elsewhere in the L RTP.	

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	163	<u>"Strategy 3.6: Reduce regional GHG and criteria air pollutant emissions" A strategy to partner with local agencies would be appropriate.</u>	This will be addressed in the final LRTP prior to adoption.
	164	<u>Page 51 – It is great to see the Zero-Emission Truck Initiative called out. This narrative should mention the Draft LA County Goods Movement Strategic Plan. Is the plan for Goods Movement Strategic Plan to be incorporated into the LRTP at some point?</u>	The Goods Movement Strategic Plan is linked specifically in action 2.5a and called out on page 39.
	165	<u>Page 58 – "Transit Oriented Communities (TOC)." There should be specific strategies in this section for how the MTA plans to work with jurisdictions on creating communities that are supportive of transit and other mobility options.</u>	Metro is committed to addressing working with local partners to address the housing shortages facing our region. Through our Joint Development Program on Metro-owned land, and through our Transit Oriented Communities program, we'll seek to create new housing around transit and will encourage transit-supportive land use policy.
	166	<u>Page 60 – "Strategy 4.1: Advance equity through institutional transformation to eliminate disparities." It is not clear how these strategies, when applied, will impact the allocation of resources.</u>	
	167	<u>"Strategy 4.2: Build affordable housing near transit." This strategy does not completely reflect the partnerships that must be developed, as the MTA can only develop affordable housing on agency-owned property</u>	Metro is committed to addressing working with local partners to address the housing shortages facing our region. Through our Joint Development Program on Metro-owned land, and through our Transit Oriented Communities program, we'll seek to create new housing around transit and will encourage transit-supportive land use policy.
CalTrans, District 7	214	The LRTP seems to separate the modes of travel (transit, highways, active transportation). Need to have actions that integrate the modes.	This will be addressed in the final LRTP prior to adoption.
	215	Has the COVID-19 pandemic required that any of the content in this draft version of Metro's Long Range Transportation Plan be updated/revise?	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP).
	216	How would the LRTP be altered or affected with new guidelines/procedures surrounding the Covid-19, if this pandemic continues or future safety standards are changed?	This is not directly addressed in the LRTP. We will forward your question on to the appropriate department at Metro.
	217	How incidents will be managed throughout the County to mitigate congestion?	
	218	LRTP does not seem to address incentives for Clean Air Vehicles to reduce Green House Gas emissions from the Transportation System.	This will be addressed in the final LRTP prior to adoption.
	219	Metro could increase/improve at site information/directions so new riders would have the knowledge on how to navigate/guide between the different rails and bus service system. Electronic displays at the rail stations updating arrival and departure times along with correlating the regional bus service (bus route arrival/departure times) would be helpful to the patrons.	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
	221	Previous reports have mentioned that the number of rail patrons have decreased, has Metro conducted a study to why the decrease of ridership and is there a correlation with paying for parking in the park and ride lots? This additional expensive may not be cost effective to public transit users.	The decline in ridership has been more acute on the bus system, though certain rail lines have also lost ridership. While the causes are numerous and complex, parking costs are not likely to be the primary factor.
	222	A color coded map of existing and future rail ways and their connections would provide a clear picture of existing and future systems. For example existing rail systems could be color coded as red and future systems to be green, etc is recommended.	The map style and map contents were reviewed prior to the adoption of the LRTP. We will share this comment with the appropriate project and design teams.
	223	It is recommend for the LRTP to include an improved interconnected network that would permeate throughout the cities surrounding the existing rail line to increase ridership. Also to develop a seamless connection in the urban transit network. It would be helpful if the LRTP included the existing bus service system onto the presented maps.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
	224	Does Metro provide personnel on site in case of an emergency for the riders, to guide them to their alternate routes?	There are Metro staff and security at stations but not all the time. Metro's COVID recovery task force is recommending a new Customer Ambassadors program to help the relaunch of the system during and after the pandemic
	225	Has Metro considered the connection between the Gold, Green and Blue Lines in the north south direction by light rail? This is a vast region of commuters that do not have the opportunity of using light rail on the east side of L.A. County.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	226	The LRTP could consider a rail system that connects the northern LA County to the southern portions of LA.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
	227	With the effects of the current Covid-19 pandemic, more people are teleworking. Metro needs to focus on expanding intercity bus/rails rather than eliminating the existing HOV lanes. Therefore, a moratorium should be put on any HOV to Express Lane conversion.	Building out the ExpressLane network is a priority for Metro. However, each conversion of HOV lanes to ExpressLanes requires careful planning and studies to determine the impact and the estimated benefits. During the planning phases, each project will be assessed for financial viability given the transportation and financial realities of that time. The specific design considerations, including access and egress, as well as the financial and equity concerns will be addressed during the planning phases.
	228	A concern with the LRTP is the idea of converting HOV lanes to Express Lanes. According to the report, the conversion to EL's is considered a congestion mitigative strategy through congestion pricing. The congestion on both the 10 and 110, has experienced degraded conditions since conversion. The State of Virginia on I-95 is an example of an increase of SOV usage rather than carpools that increases vehicle volumes (the toll lane started with 1 converted HOV lane and now has increased to 3 toll lanes), increases air pollution and decreases the AVO's. LA does not have the room to build extra toll lanes to accomodate SOV's.	Building out the ExpressLane network is a priority for Metro. However, each conversion of HOV lanes to ExpressLanes requires careful planning and studies to determine the impact and the estimated benefits. During the planning phases, each project will be assessed for financial viability given the transportation and financial realities of that time. The specific design considerations, including access and egress, as well as the financial and equity concerns will be addressed during the planning phases.
	229	no mention of homelessness in the county.	In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.
	230	no mention of plans to sanitize facilities and vehicles regularly to combat virus spread.	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTP.
	231	no mention of public art and beautification of facilities.	This will be addressed in the final LRTP prior to adoption.
	232	no mention of police/security policies to ensure accountability.	In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.
	233	Projects listed in the LRTP need to be consistent with project listed in SCAG RTP (scope, opening year, cost, etc.)	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.
	234	Two comments: 1. Is the employment number under 2020 (4.4 million) in the context of COVID, or is it a "pre-COVID" number? 2. The year identified for Seaports Cargo is 2018. Would it be possible to provide data for the year 2019 instead?	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTP.
	235	Suggest clarifying "largest county in the US" by referencing population: "largest county population in the US."	This will be addressed in the final LRTP prior to adoption.
	236	In paragraph under "A Growing County" header. Are the referenced "congested corridors" only in the context of highways and roads or do the congested corridors also include the context of passenger and freight rail systems? If both, suggest including reference to both, if only highways and roads, suggest adding that additional specificity.	This will be addressed in the final LRTP prior to adoption.

Attachment C - L RTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	237	missing freeways on maps (like SR 2)	The map style and map contents were reviewed prior to the adoption of the L RTP. We will share this comment with the appropriate project and design teams.
	238	Over the next decade, Metro plans to introduce an additional 210 miles of ExpressLanes on four additional corridors.	Comment noted.
	239	Under Figure 5--Benefits of the 2020 L RTP, would it be possible to add a graphic showing improvements (reductions) in auto VMT?	We believe this element is addressed appropriately elsewhere in the L RTP.
	240	Figure 5, Benefits of the 2020 L RTP: How certain are these stipulated benefit figures? What happens if they are not realized?	The bold policies outlined in the recommended L RTP are subject to change and will require additional studies to determine the full cost to implement and maintain. The bold policies outlined in the L RTP cannot be achieved alone. They will require partnerships with local and regional stakeholders, as well as buy-in from elected officials and the general public. The full assumptions included in the L RTP analysis are included in the L RTP Technical Document; however, the implementation of any given bold policy or program will require additional analysis to understand the full impacts.
	241	Regarding, "3. Road Charges (Mileage-based / VMT fees)," is this for travel on all roads in LA County? Who would be managing this "Road Charge" program? What is the source of the information indicating that, "each one cent per mile increase can result in roughly a 1% increase in transit ridership?"	The bold policies outlined in the recommended L RTP are subject to change and will require additional studies to determine the full cost to implement and maintain. The bold policies outlined in the L RTP cannot be achieved alone. They will require partnerships with local and regional stakeholders, as well as buy-in from elected officials and the general public. The full assumptions included in the L RTP analysis are included in the L RTP Technical Document; however, the implementation of any given bold policy or program will require additional analysis to understand the full impacts.
	242	What is the Transit Homeless Action Plan 2.0?	This is not directly addressed in the L RTP. We will forward your question on to the appropriate department at Metro.
	243	Regarding the lower photo on page 27, which is understood to correspond to =, "Strategy 1.8: Optimize sustainable and resilient operations and maintenance of fleet, infrastructure and facilities," it is suggested that the existing photo be replaced with one showing a battery electric bus.	Comment noted.
	244	In the last sentence of the first text block on this page, it is suggested to add the word "integrated" to "corridor management," unless the use of "corridor management" in this instance is meant to convey something else, in which case it would be suggested to add "and integrated corridor management." Metro also works with local agencies to implement smaller scale improvements such as arterial widenings, intersection upgrades, ramp metering, traffic signal synchronization, corridor management and intelligent transportation system (ITS) solutions.	This will be addressed in the final L RTP prior to adoption.
	245	Figure 13: 71 Gap closure HOV Lanes not identified on the map	The map style and map contents were reviewed prior to the adoption of the L RTP. We will share this comment with the appropriate project and design teams.
	246	Figure 14, "Major Highway Projects," includes: Alameda Corridor East Grade Separations Phase II , Sepulveda Pass Transit Corridor (Ph 1), Countywide Sound wall Construction. Does "Major Highway Projects" include projects that are not on the state highway system. If so, it is suggested to add a footnote to provide an explanation.	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the L RTP. We will share this comment with the appropriate project team.
	247	Are the "Open Year" identified for the I-710 South Corridor Project (Ph 1), 2040, and for the I-710 South Corridor Project (Ph 2), 2041, correct?	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the L RTP. We will share this comment with the appropriate project team.
	248	Figure 14 Project Limits, Cost, and Opening Year Corrections SR-71 Gap from I-10 to 0.2 miles south of the Los Angeles/San Bernardino County Line 413 2026 I-105 ExpressLanes from I-405 to I-605 762* 2025 *If Alt 3 is selected or \$475M for Alt 2 I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) 679 (ok) 2026 High Desert Multi-Purpose Corridor (HDMC) 393 (10 Billion in 2016 \$'s)** 2034 I-5 Capacity Enhancement (I-605 to Orange County Line) \$1,468 YR 2022 I-5 North Carpool Lanes – SR-134 to SR-118 \$920 YR 2022 SR-91 bundle of projects excluded from list I-5/I-605 Interchange Improvement Project and I-605 CIP are excluded from the list in Figure 14. Clarity is needed on 710 South Phases 1 and 2	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the L RTP. We will share this comment with the appropriate project team.
	249	Figure 15. It is suggested that either all of the projects listed in Figure 14 be numbered--and the number be included with the label of the project in Figure 15, or that the text of the labels in Figure 15 be verbatim what was used for the project for it's listing in Figure 14.	The map style and map contents were reviewed prior to the adoption of the L RTP. We will share this comment with the appropriate project and design teams.
	250	It is suggested that the existent text at the bottom of Figure 15 be revised to: "For projects that have not yet completed the environmental process, final alignments will be defined during completion of the environmental process for the respective projects."	Comment noted.
	251	It is noted that the list of actions under Strategy 2.1: Implement operational improvements with technology does not include the ICM project being developed for I-710. Additionally, technology focused pilot programs, such as Drayflex, are not listed. Are pilot programs not being identified because they are pilot programs? NOTES: It is noted that the associated discussion on page 37 also include no reference to the I-710 ICM, or any technology-focused pilot programs. It is also noted that "Strategy 2.5: Support efficient goods movement," includes no discussion on either of these as well.	This will be addressed in the final L RTP prior to adoption.
	252	Strategy 2.2 - Traveler Information needs to be across modes. A highway traveler needs to know real time transit options. All modes, including pedestrian, need to be aware of closures and detours.	This will be addressed in the final L RTP prior to adoption.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	253	Strategy 2.3 - Direct access to staging areas (transit centers, park and ride lots) is needed from the managed lane network. El Monte and Harbor Gateway are two examples of this direct access. There are other opportunities throughout the network.	Building out the ExpressLane network is a priority for Metro. However, each conversion of HOV lanes to ExpressLanes requires careful planning and studies to determine the impact and the estimated benefits. During the planning phases, each project will be assessed for financial viability given the transportation and financial realities of that time. The specific design considerations, including access and egress, as well as the financial and equity concerns will be addressed during the planning phases.
	254	Strategy 2.3 - Carpoolers do not travel in Express Lanes completely free, unlike existing HOV lanes. This is because individual users must purchase stored value on a transponder and rent the transponder for a monthly maintenance fee currently assessed by Metro. If two or three individuals decide to carpool together, two transponders must be purchased/ rented, which means monthly fees are collected twice (or more). Consider removing the monthly maintenance fee (like MTC/ Bay Area Fasstrak) or allowing usage without transponder (SANDAG I-15 Express Lanes) when the minimum number of occupants to designate HOV are present (and using a transponder for those vehicles below minimum HOV occupancy). Equity may be of concern since potential users may lack access to banking (credit card or checking) accounts, or may not have proper documentation or permanent mailing address to open an account to use Express Lanes.	Building out the ExpressLane network is a priority for Metro. However, each conversion of HOV lanes to ExpressLanes requires careful planning and studies to determine the impact and the estimated benefits. During the planning phases, each project will be assessed for financial viability given the transportation and financial realities of that time. The specific design considerations, including access and egress, as well as the financial and equity concerns will be addressed during the planning phases.
	255	Express Lanes section states: "The I-110 and I-10 ExpressLanes have saved commuters, on average, six minutes during peak morning commutes" - this amount of time saving does not seem very significant given the Capital Investment on Express Lanes Conversion and the toll amount the users have to pay. The statement brings into question effectiveness of the Express Lanes.	Building out the ExpressLane network is a priority for Metro. However, each conversion of HOV lanes to ExpressLanes requires careful planning and studies to determine the impact and the estimated benefits. During the planning phases, each project will be assessed for financial viability given the transportation and financial realities of that time. The specific design considerations, including access and egress, as well as the financial and equity concerns will be addressed during the planning phases.
	256	Express Lanes section states "according to surveys, 81% of ExpressLanes users would likely support the expansion of ExpressLanes on other freeways" - misrepresents (violators) are approximately 30% during peak period and more than 50% during peak hours. How accurately this survey result will mimic the reality?	Building out the ExpressLane network is a priority for Metro. However, each conversion of HOV lanes to ExpressLanes requires careful planning and studies to determine the impact and the estimated benefits. During the planning phases, each project will be assessed for financial viability given the transportation and financial realities of that time. The specific design considerations, including access and egress, as well as the financial and equity concerns will be addressed during the planning phases.
	257	Is the referenced "Traffic Reduction Study" only going to focus on local roads? If so, it is suggested that that clarification be included, at minimum in the related discussion on page 39.	This is not directly addressed in the LRTP. We will forward your question on to the appropriate department at Metro.
	258	Strategy 2.5b - Curbside mobility is across modes. Freight deliveries need the curbside as do transit stops, rideshare services, and local residences and businesses. In addition, curbside mobility affects active transportation. Improvements should be done in partnership with regional and local agencies.	This will be addressed in the final LRTP prior to adoption.
	259	It is suggested that the text under Strategy 2.5: Support efficient goods movement: LA County's extensive transportation network serves as the backbone to the nation's freight transportation system. The LA County Goods Movement Strategic Plan, under development with stakeholders across the county, will develop a comprehensive approach that balances various goals, including efficient and effective flow of goods to support economic sustainability and prosperity," include language specifically emphasizing social equity."	This will be addressed in the final LRTP prior to adoption.
	260	The discussion under the Goods Movement Strategic Plan specifically references the seaports, but does not reference LAX, intermodal facilities or logistic warehouses.	This will be addressed in the final LRTP prior to adoption.
	261	Propose revising the text immediately under Strategy 2.7: Enhance the operation of the state highway system to, "Metro continues to address key bottlenecks in LA County, some of the most congested in the US. Metro works with Caltrans and regional partners to plan, build and maintain projects that address highway capacity and operational efficiency."	This will be addressed in the final LRTP prior to adoption.
	262	Propose revising Action 2.7.a to, "Work with Caltrans and local agencies in conjunction with development and construction of projects which directly address freeway bottlenecks."	This will be addressed in the final LRTP prior to adoption.
	263	Strategy 2.7b - In addition to the state highway and local arterial roadway network, the transit network should also be included to alleviate traffic congestion.	Comment noted.
	264	An observation. The discussion and accompanying data on page 43 would seem to indicate that commuting by car is faster than mass transit, and it is only showing for the AM commute. Would it be possible to distinguish between SOV's, HOV's, and Express Lanes, in comparison to express bus and rail (heavy/light)? And if this is possible, could the data be shown for both the AM and PM commutes?	This is addressed in the LRTP Technical Document.
	265	Could the source of the "definition" of Complete Streets be included?	Comment noted.
	266	Strategy 3.3 - There needs to be an action here related to eliminating barriers to pedestrians and bicyclist. This could go under safety, but it is also an equity issue. Examples are getting from one side of a freeway, rail line, river, etc. to the other side in a safe, efficient manner.	This will be addressed in the final LRTP prior to adoption.
	267	Although Metro's identified Complete Streets Policy includes a specific reference to, "...movers of commercial goods." there is no discussion with this focus in this section. As a suggestion, perhaps a discussion could be added, focusing on 2.5b. Develop curbside mobility improvements in partnership with regional agencies, incorporating any applicable content from the "LA County Goods Movement Strategic Plan."	We believe this element is addressed appropriately elsewhere in the LRTP.
	268	If the discussion provided under Our plan helps reduce emissions, for a healthier LA. Is not going to include PM2.5, it is recommended that the text under this heading specifically reference PM10 as the figure does.	Comment noted.
	269	Although the narrative on the preceding page indicates that, "...Metro has defined "Equity Focus Communities" (EFCs)." it is recommended that a source (or sources) be identified for Figure 22.	This will be addressed in the final LRTP prior to adoption.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	270	If it is public information, would it be possible to identify a dollar range with respect to the various "Affordable housing units/apartments" identified? Or perhaps the source for the determination of the quantity of "Affordable housing units/apartments" at each of the locations.	This is not directly addressed in the LRTP. We will forward your question on to the appropriate department at Metro.
	271	Metro 2018 Equity Effort: What was the outcome of this effort? Has it been effective?	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.
	272	Strategy 4.3 - Consider opening discounts to more than just LA County residents; there are riders of all ages who use LA Metro who do not reside in LA County and therefore do not qualify for residency discounts. Youths/ school-age children and seniors/ disabled residing outside LA County traveling to destinations in LA County pay full fare since they cannot qualify for reduced fares. Consider allowing Ticket Vending Machines and vehicle operators to add reduced fare rides/ passes to any TAP card (and request verification upon boarding/ fare check) as qualifying transit riders may be undocumented (or otherwise lack proper/ accepted ID), more transient (without a permanent mailing address) or otherwise not reside in LA County. Such measures would reduce household expenses for those who choose or depend on public transportation.	Metro is conducting a Comprehensive Pricing Study. The study goals are revenue, ridership, equity, security, and customer experience-, and will be considered against deliverability within the context of the near and long-term agency recovery from the COVID-19 pandemic.
	273	Equity should also look at mobility access to the same stop, platform or station as able-bodied individuals. Requiring mobility-impaired transit riders (or those with wheeled devices) to travel an extra block or so to access a rail platform or underground station isn't nearly as equal when such platforms or stations have multiple entrances on different streets that able-bodied individuals (without wheeled devices) can access. Although some bicyclists and scooter users may be able to carry their	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.
	274	Be aware of the post COVID-19 impact.	Thank you for the comment. Metro is committed to providing safe and accessible services for all users. The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTP.
	275	no citing of source for the 1.84 million jobs figure.	This is addressed in the LRTP Technical Document.
	276	Could a brief discussion be provided regarding the "Goods Movement \$0.1 billions" as shown in Figure 28, comparable perhaps to the discussions provided on page 70 for "Access Services" and "Roadway Operations."	This is addressed in the LRTP Technical Document.
	277	Although Metro is one of, and provides a substantial and growing operating subsidy for Metrolink commuter rail, it is not enough to maintain service levels that existed years ago. Prior to COVID-19, the Metrolink San Bernardino Line saw substantial service reductions in 2014 during mid-day and late evening periods. Mid day trains that previously ran every 30-60 minutes now have 60-120 minute headways, and late evening outbound trains (after 9:30pm) were eliminated for Monday-Thursday. These service cuts that have yet to be restored place an undue burden for workers in certain industries (such as service and hospitality) who do not commute during conventional peak hours.	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.

Attachment C - L RTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
South Bay Cities Council of Govts	278	There are at least three significant dynamics that will change the quantity and quality of Metro’s transit market, all predicted or predictable, which have not been accounted for in the draft L RTP. (1 of 3):A. Technology: Electronic access is decreasing the need for the physical proximity that drives demand for mobility. The L RTP is based on an assumption that mobility networks and systems will return to the “old normal” after the virus has passed. That would require a return to business as usual. It seems more likely, or at least more prudent, to plan for the case where transactions are completed virtually rather than in physical spaces. This is especially true regarding work sites where telework has in many firms taken hold, in part because of employee preferences. Several technology businesses have declared that telework will become a permanent option, and close to home, the County of Los Angeles is making a broad range of worksite options available to its large work force. New technology for collaboration and virtual presence has made the adjustment to COVID-19 feasible. Zoom, WebEx, and MS Teams, while not brand new, have become popular options available to facilitate remote work and a range of remote services including working from home (WFH), virtual government, telemedicine and online education. These technologies and others are certain to develop in the next few years, and to become permanent common options for work early in the next 30 years. Microsoft has already introduced its “Together Mode” to help the brain more effectively process meetings with many attendees shown on the screen. Imagine in the near future voice-activated ad hoc Zoom meetings with multiple participants. Proximity, while desired for many circumstances, will no longer be required except for a few interactions, with special approvals needed for nonessential travel.	The L RTP is intended to be both bold and realistic. It recognizes that there will be changes in technologies and other challenges and uncertainties that face the region. The L RTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan.
	279	There are at least three significant dynamics that will change the quantity and quality of Metro’s transit market, all predicted or predictable, which have not been accounted for in the draft L RTP. (2 of 3):Environment: Climatologists have predicted with a high degree of confidence that extreme heat will affect life in all of Southern California long before 2050. The L RTP should include language that recognizes the phenomenon and include specific recommendations and budgets for transit service adaptations. The adaptations could include consideration of significantly increased investments needed for better air circulation systems in buses, on the rail platforms and train cars to ensure protection from future health concerns for both riders and operators. Without protection from the heat, few people will be willing to wait outside 20 minutes in extreme heat.	Sustainability is a guiding principle in this L RTP and a foundational element of our activities. Metro believes that environmental sustainability should carry through to each project, program, and policy. The L RTP details several specific strategies to address sustainability and our new report that will be published soon, Moving Beyond Sustainability, provides greater detail on how Metro will lead in sustainability.
	280	New modes: The emerging micromobility phenomenon could easily grow to capture a sizable segment of the short range trip, five miles or less which already characterizes 70 to 75% of all trips today. (3 of 3):Automated vehicles in the form of “robocabs” should begin to appear in commercial service no later than 2025 with full scale deployment in many markets by 2035. Robocabs are essentially driverless robots that deliver door-to-door, no-transfer, on-demand service at rates lower than existing network transportation service. How much lower will be understood better in the next few years as more is learned about the higher capital expense per vehicle and lower operational expenses. The L RTP should include a strategy for the market segment in which public transit can compete. For example, its most effective niche might be rapid, long haul, low cost service.	The L RTP is intended to be both bold and realistic. It recognizes that there will be changes in technologies and other challenges and uncertainties that face the region. The L RTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan.
	281	Covid-19 may have dramatically and permanently changed Metro’s potential transit market share. The new paradigm of working from home (WFH) may continue to significantly exceed transit as it has in recent years especially as employers seek to improve their profitability by reducing their office expenses. Technologies such as virtual meetings and shared work software enable a new model for a significant share of the workforce that may reduce congestion, especially if WFH is integrated with transportation demand management (TDM). The L RTP should more extensively address the potential long-term effects of WFH as a distinct mode and not refer to it as just another TDM strategy.	This will be addressed in the final L RTP prior to adoption.
	282	Metro staff has estimated it will need to charge 20-cents per mile in a Vehicle Miles Traveled congestion reduction fee to help fund an 81% growth in transit mode share from the pre-COVID 19 rate (a mode share change from 7% to 14%) over the next 30 years. This growth rate assumes that the current COVID 19 ridership levels are not relevant to L RTP assumptions and ridership will return to prior levels over the next two years which is an overly optimistic assumption even within the industry. The L RTP assumes Faster Transit strategies will grow ridership by 7%, reduced/free fares will add 25% and VMT Fees will add another 18%. The balance will come from future travel trends and compound effects, and Measure M. We disagree with the projection’s assumption that pre-COVID riders will return as Safer At Home restrictions are lifted. Metro assumes the pandemic will not have permanent ridership impacts. Therefore, Metro has chosen to consider COVID 19 as a short-term	The bold policies outlined in the recommended L RTP are subject to change and will require additional studies to determine the full cost to implement and maintain. The bold policies outlined in the L RTP cannot be achieved alone. They will require partnerships with local and regional stakeholders, as well as buy-in from elected officials and the general public. The full assumptions included in the L RTP analysis are included in the L RTP Technical Document; however, the implementation of any given bold policy or program will require additional analysis to understand the full impacts. More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the L RTP performance evaluation are included in the L RTP Technical Document.
283	On page 61, the report states, “Metro is considering free transit for students, and if additional revenue is raised through congestion pricing, Metro could subsidize transit for all riders.” The language needs to be updated to reflect the recent Board direction on student and other fare discounts. Clarification is needed regarding the financial cost (including increased capital and operations costs) of providing free/subsidized fares from VMT fees and the financial assumptions for any other transit strategies that will be funded with VMT fees.	Comprehensive fare study	

Attachment C - L RTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	284	4. On page 66, the report states, "While the expanded programs, partnerships, and policies of the 2020 L RTP represent additional expenditures, these will be balanced by future revenues anticipated through future policies, such as ExpressLanes and congestion pricing." It is impossible to confirm this statement from the narrative in the L RTP. A chart is needed that clearly describes the sources, uses, and amounts for each of the funding sources.	The bold policies outlined in the recommended L RTP are subject to change and will require additional studies to determine the full cost to implement and maintain. The bold policies outlined in the L RTP cannot be achieved alone. They will require partnerships with local and regional stakeholders, as well as buy-in from elected officials and the general public. The full assumptions included in the L RTP analysis are included in the L RTP Technical Document; however, the implementation of any given bold policy or program will require additional analysis to understand the full impacts.
	285	5. The L RTP needs to provide more detail on the capital, operating and maintenance cost of achieving a 14% transit mode share which would likely double Metro and municipal transit operator costs. Metro should also be transparent in its projected farebox recovery assumptions and the other funding mechanisms assumed in its goal to increase annual transit trips per capita by 81% over the next three decades.	The bold policies outlined in the recommended L RTP are subject to change and will require additional studies to determine the full cost to implement and maintain. The bold policies outlined in the L RTP cannot be achieved alone. They will require partnerships with local and regional stakeholders, as well as buy-in from elected officials and the general public. The full assumptions included in the L RTP analysis are included in the L RTP Technical Document; however, the implementation of any given bold policy or program will require additional analysis to understand the full impacts.
	286	Page 20 - In the Better Transit section, the Metro Rail Expansion paragraph on near-term projects includes the West Santa Ana Branch, but does not include the Green Line Extension to Torrance which is in its environmental clearance process. Please correct the omission or eliminate the narrative reference to specific projects and refer readers to the complete list on the following page.	This will be addressed in the final L RTP prior to adoption.
	287	Page 28 - In the More Transit Trips Mean More Opportunity page, please add a column in each chart for the current daily transit trips and transit mode share for commute trips. Also add a chart for transit mode share for daily trips. It is important to distinguish between commute and daily mode shares in order not to understate the relative size of the non-transit daily and commute trip mobility challenge which exceeds 85% of the congestion problem.	More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the L RTP performance evaluation are included in the L RTP Technical Document.
	288	Spending \$160 billion to increase the transit mode share from 7% to 14% may not be the most cost-effective way to reduce congestion compared to strategies that eliminate trips. Metro is not just a transit agency, it is a mobility manager. The L RTP does not provide sufficient attention to trip elimination which has the potential to reduce travel far more than 14%. Please evaluate the cost benefit of the wide range of trip reduction strategies that do not rely on a mode shift but simply eliminate the need for the trip.	The L RTP recognizes that TDM is an important strategy for managing congestion and addressing environmental goals. We will continue to be a regional leader in TDM and look forward to collaborating with our local partners to manage demand, reduce the number of SOV trips, and provide new transportation options. Additionally, Metro recognizes that telecommuting has grown steadily over the past decade and that COVID-19 has dramatically accelerated that trend. We will continue to support and analyze this trend.
	289	Page 34 – A portion of the I-405 South Bay Improvements are scheduled for completion before the 2028 Olympics, but the Major Highway Projects shows the project opening in 2047. There should be a Phase I and Phase II with the appropriate cost and Open Year. The I-110 ExpressLane extension should not wait until 2046 to open. The extension should be the first priority for surplus revenues generated from the existing I-110 ExpressLane, before these funds are committed to other new ExpressLane projects such as the I-105 ExpressLane which is slated to open in 2025.	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the L RTP. We will share this comment with the appropriate project team.
	290	Page 67 – The pie chart shows that \$66.8 billion (17%) of the \$400 billion in the L RTP will come from "Other Local" sources. Please list the sources and amounts assumed and the proportion assigned to capital vs operations.	
	291	Page 74 – Although the L RTP is financially constrained over its 30-year term, there is no transparency as to funding constraints by decade. Metro regularly updates its financial forecasts with decade-by-decade transparency, but these financial constraints are not shown in the L RTP. Instead project opening dates are used. As a result, short- and long-term consequences of financial challenges such as COVID 19 are not explicitly addressed in the L RTP and make the issue of financial constraint hard to assess. How will the upcoming SRTP be constrained consistent with the L RTP decennial budgets and schedules assumed in the L RTP? Will the SRTP provide more transparency on the first decade funding available per the L RTP and its underlying financial assumptions and allocations? The L RTP includes projected costs for major transit and highway projects. But the document also includes dozens of programs that are described without the cost of individual program / project / policy / strategies being identified. The L RTP should provide a summary table of the costs for each of the four major initiatives beyond the major projects.	The L RTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP). The L RTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTP. The L RTP includes a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the L RTP.
	292	Finally, the Next Gen Bus Study is referenced several times in the L RTP with numerous embedded strategies and actions. The L RTP projects a 13% reduction in traffic delay once the recommendations are implemented. The key goals of the Next Gen study are to ensure that: transit service is: 1. accessible to nearly all potential riders and serves 2020 destinations; 2. improves travel speeds by dedicating bus-only lanes on streets; 3. provides transit priority at signalized intersections, and reduces the number of local stops. The study states that with these strategies, Metro hopes to make a transit trip take no more than 2.5 times the time a comparable trip takes in a vehicle. We do not understand how much these strategies will cost or how a 2.5X travel time delta would attract a projected 7% increase in transit ridership.	More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the L RTP performance evaluation are included in the L RTP Technical Document.

Attachment C - L RTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	293	The innovation in the L RTP appears to be largely driven by new transit projects, policies and pricing strategies but it does not address the way travel, technology, work and commutes are changing. Traditional public transit has been declining for over 10 years in Los Angeles County, pre-COVID – and we are concerned that this L RTP focuses too much on business as usual.	The L RTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP). The L RTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTP. The L RTP includes a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the L RTP.
Metrolink	294	<p>The Southern California Regional Rail Authority (SCRRA) has reviewed the draft Metro Long Range Transportation Plan (L RTP). Overall, SCRRA supports the L RTP and its focus on clearly articulated transit objectives, mobility and access goals and community improvement plans. The L RTP carries great potential to provide a high-quality transportation system to meet growing needs in LA County. As the operator of the regional commuter rail system known as Metrolink, SCRRA has a shared responsibility to increase mobility across LA County and beyond by seeking out opportunities to enhance connectivity and smoother first/last mile journeys for riders. We appreciate the Metro acknowledges the value of Metrolink through Strategy 1.1 of the L RTP. We encourage Metro to further leverage these investments with a focus on enhancing connectivity to the greatest extent possible. One way to do so is by incorporating Metrolink stations into the strategies to connect jobs and housing and strengthen communities through the Transit Oriented Communities program. As Metro expands and improves the rail transit network, we request that Metro prioritize coordination with Metrolink on corridor projects that can potentially affect Metrolink rail lines, such as the: • North San Fernando Valley Transit Corridor • North Hollywood to Pasadena Transit Corridor • East San Fernando Valley Light Rail Project • Gold Line Foothill Extension to Claremont • Eastside Extension Phase 2 Trans Corridor (1st and 2nd Alignment) Metrolink regional rail service allows people to live where they want and still work in the jobs-rich areas of LA County and the greater Southern California region.</p> <p>While doing so, Metrolink removed 9.3 million car trips from Southern California roadways in Fiscal Year 2019. Investment in Metrolink represents a simultaneous investment in economic opportunity and traffic reduction. As a result, The Metrolink system should be incorporated as part of multimodal corridors for consideration for investment and cohesive management in strategies to advance the Traffic Reduction Study (Strategies 2.6b and 2.6c, p. 38). Additionally, the L RTP should identify the elimination the State of Good Repair backlog on the Antelope Valley Line as a priority. Metrolink shares approximately 60% of its regional rail network with freight operators servicing the ports of Los Angeles and Long Beach. Accordingly, as Metro invests in multi-modal freight improvement options in Strategy 2.5a and 2.5c (p. 38), benefits to Los Angeles County's passenger rail system should be incorporated into project definition, performance evaluation, and investment decisions in recognition of the multifaceted joint benefits to the system. Thank you for the opportunity to comment on L RTP. We look forward to our continued partnership with Metro on this important project, as well as our shared priorities in the region.</p>	Thank you for your comments. Metro is committed to working with Metrolink on our shared priorities. In the L RTP, the support for Metrolink projects is referenced in the Better Transit priority area; however, that is not to suggest that Metrolink is not an important partner on other strategies and actions. We look forward to continued collaboration on projects and programs of mutual benefit.
North County Transportation Coalition	295	Oh Those Metro Maps. Seeking equitable funding for north Los Angeles County mobility projects has not been the only challenge—inclusion on the Metro “maps” has been just as formidable. NCTC Subregion elected officials, public officials, Executive Director, civic, and business leaders routinely go to Metro meetings to receive handouts and maps that do not depict north Los Angeles County—either excluded from an insert table or occasionally, nonexistent on the map. The NCTC Subregion in north Los Angeles County must continually strive to be on the “map,” for example: •None of the maps show SR138 connecting the I-5 to the SR14. •SR138 is on most maps but is usually covered with the map legend. •June 7, 2019 Draft L RTP Board Report and Baseline Understanding Appendix, pg.84, Metro ranks NCTC Subregion #1 Total Area Subregion, but leaves SR126 and SR138 off the map. The Metro Draft L RTP illustrations need to depict the north Los Angeles County subregion properly.	This will be addressed in the final L RTP prior to adoption.

Attachment C - L RTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	296	<p>Metro Investment with NCTC Subregion Gets Funding and Transit Ridership Results The sentiment that transportation funding was not equitable for the NCTC Subregion, led the NCTC Board of Directors to ask for a Funding Analysis and Snapshot report. The report complied with the assistance of Metro Countywide Planning and Development and the NCTC staff members is in final development. The NCTC Subregion draft funding analysis details formula and discretionary funding to the region from FY2018-24. The draft analysis shows that for transportation discretionary grants, the NCTC region is doing exceptionally well. When the NCTC Subregion partners with Metro and Metrolink seeking discretionary federal and state grants, we have a near 100% success rate. That is not a typo, \$401 million in three recent federal and state grant examples:•I-5 North Capacity Enhancement Project received a total of \$294 million in grants, including private sector funding obtained by the Subregion:•Federal \$47 million INFRA grant and •CA State \$247 million TECP grant. •AVL Service Improvements received \$107 million TIRCP grant award matched with 53% of NCTC Measure M MSP Subregional funds (\$116.3M).In July 2019, the Metro AVL Study had jaw dropping results for north Los Angeles County:•AVL Ridership Steadily Increasing—since July 2015. •29% Ridership Growth on the AVL July 2015 to July 2019 •Metro initiated the \$5.5 million investment in the Ridership Fare Reduction Program—AVL ridership has grown 29% as of June 2019. The program is so successful that even after Metro lowered the fare reduction investment to \$2 million in July 2018, ridership has continued to steadily increase. •AVL HAS SEEN INCREASED RIDERSHIP IN LOS ANGELES COUNTY. •AVL achieves over 11% transit mode split for trips generated in the Antelope Valley and nearly 10% for trips generated in the Santa Clarita Valley. •AVL Service Improvement Scenarios for frequent, clock-based transit to/from Lancaster to/from LA Union Station in less than 90 minutes is achievable for \$698.1 million.</p>	<p>We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the L RTP. We will share this comment with the appropriate project team.</p>
	297	<p>Following the Northridge Earthquake in 1994, total trip time on Metrolink rail service to/from the Antelope and Santa Clarita Valley’s has seen little improvement. The AVL Study clearly demonstrated that with modest investment—\$698.1million—Metrolink service can provide the frequent transit trip to compete with the car trip on the freeway. (Metro AVL Study Metro Report, July 17,2019 Metro Planning & Programming Committee).In this Draft L RTP period, the NCTC Subregion realistically sought the \$220m Metrolink Antelope Valley Line Capital and Service Improvements Project scenario option with NCTC allocating 53%, \$116.3M in Measure M matching funds used to achieve the TIRCP \$107 million grant award. The \$220m AVL capital improvement project entering environmental clearance will provide a real rail alternative to the freeway trip—for the \$698.1 million AVL project, the NCTC Subregion must wait for the next 30-year plan. Metro partnering with the NCTC Subregion to seek funding opportunities produces results, returning federal and state tax dollars to the LA region’s transportation projects as the north Los Angeles County residents respond by using the viable transit alternative provided.</p>	<p>We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the L RTP. We will share this comment with the appropriate project team.</p>
	298	<p>Freeways Can Not Be Forgotten The Draft L RTP provides a Snapshot of the North Los Angeles County NCTC Subregion transportation network (Baseline June 2019 L RTP Metro Report pages 85/86). Major Transportation FacilitiesArea freeways include the Golden State Freeway (I-5) and the Antelope Valley Freeway (SR-14). State Route SR-126 and SR-138 also impact the region. Metrolink operates commuter rail services with stations located in the cities of Lancaster, Palmdale, Santa Clarita, and in unincorporated areas of Los Angeles County. For the NCTC Subregion funds in the L RTP programmed to highways and arterials is imperative. Los Angeles County relies on the freeway network to move people and goods. Is 26% highway funding for the entire Los Angeles County sufficient over a 30-year period? The NCTC Subregion has limited viable alternatives to the freeway network. The main connection for the Antelope Valley and Santa Clarita Valley to the LA Basin and beyond is the freeway system with limited regional rail connections through Metrolink. The Metrolink AVL is the only true mobility option that does not use the freeway system. Even Santa Clarita Transit and Antelope Valley Transit Authority (AVTA) use the freeway system for their transit service between the Valley’s and into the LA Basin.Metro asks the NCTC Subregion to be patient for the regional rail alternative transit option, while spending less on the freeway system—NCTC has concerns with this long-term transportation planning approach for the north Los Angeles region.</p>	<p>The L RTP’s investment plan is built upon previous efforts and the Metro Board’s previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the L RTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility.</p>
	299	<p>The Draft L RTP has the expansion of the Express Lanes Strategic Network, i.e. tolling/congestion pricing proposal, for the entire County by 2045. (Page 33, Figure 13, Tier 3 Draft L RTP). The NCTC JPA has not taken a formal position on the Metro Express Lanes Strategic Network expansion—but a majority of the NCTC Board has publicly expressed serious concerns with the Metro congestion pricing/toll lanes proposal and how it adversely impacts north Los Angeles County residents and businesses, especially those in the Equity Focus Communities (EFC). Ironic, the best map in the Draft L RTP depicting the NCTC Subregion seeks additional congestion pricing.</p>	<p>Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	300	The NCTC Subregion believes more funds should be spent in the Draft LRTP for life-saving highway projects like the SR14 and SR138. At every NCTC JPA Board meeting, the NCTC receives public testimony from Neenach, Antelope Acres, and Oso Town Councilmembers on the NW SR 138 Corridor with powerful visuals of fatal accidents as they urge Caltrans, Metro and NCTC to approve roughly \$90 million in safety related fixes detailed in the Metro approved EIR connecting the I-5 to the SR14 along the SR138 corridor. (Metro Northwest SR138 certified EIR, 2017) Metro and Caltrans staff have heard the northwest SR138 corridor public comment and have sought traffic calming, signage, and other measures, but concerning the safety related expansion projects including passing lanes, the NCTC Subregion is told to be patient, Metro and Caltrans do not have the funding for these freeways/highway projects. The freeway/highway arterial network is part of the NCTC Subregion transit system. For many north Los Angeles County residents, transit options have many transfers, take numerous hours, and are not available 24/7 to match their work schedules. As the Metro Board seeks to Reimagine The Highway System, please acknowledge that the NCTC Subregion needs to improve chokepoints along the SR 14 and SR 138 which are above the CA allowable accident rate according to Caltrans (Caltrans SR14 Traffic Safety and Operational Analysis, July 2019). May 14, 2020 Tweet by Transportation Policy Director to a Metro Board Member: "Those who stand to be the most impacted by the policy or program should hold the most power in the decision-making space, but they rarely do" by Ms. Ariel Ward, A Tale of Two Truths: Transportation and Nuance in the Time of COVID-19, May 13, 2019 www.medium.com Transportation professionals need to make space for critical questions even when—or especially when—it's inconvenient. May 14, 2020 Tweet by Transportation Policy Director to a Metro Board Member	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
	301	Demographics in North Los Angeles County The recent Covid Pandemic highlights how all of Los Angeles County relies on the NCTC Subregions first responders and essential workers—on 24/7 shifts throughout Los Angeles County. We appreciate and are proud of our north Los Angeles County neighbors for the work they have done during the pandemic to provide essential services to keep us healthy, safe, and secure, while stocked with essential goods. Thank You! It is understandable that city, civic and business leaders are reticent to headline Equity Focus Communities (EFC) in economic development brochures touting the benefits of their city, but US Census Bureau statistics, Metro demographic maps tell the story—NCTC Subregion needs Equity: One in three in the Antelope Valley live in Equity Focus Communities—yet Lancaster and Palmdale appear to have no projects listed in the Draft LRTP. Black/African American population: Lancaster 21.8%, Palmdale 12.5% Asian population: Santa Clarita 11% Hispanic or Latino: Lancaster 39.7%, Palmdale 60.2%, Santa Clarita 33.5% Persons in Poverty: Lancaster 23.8%, Palmdale 17.3%, Santa Clarita 8.6% School Free/Reduced Lunch Program, Lancaster K-6 eligible: 75% Veterans average population in AV & SCV is 6.1%, above LA County 3.5% & CA 5.4% avg. Veterans average population: Lancaster 7.5%, Palmdale 5.8%, Santa Clarita 4.9% Persons without Health Insurance, under age 65: Lancaster 7.5%, Palmdale 10%, Santa Clarita 7.5% Persons 65 years and over: Lancaster 9.8%, Palmdale 18.9%, Santa Clarita 11.3% NCTC Subregion officials need Metro assistance to connect with the impacted Equity Focus Communities in the Antelope and Santa Clarita Valley's.	The LRTP is a regional plan for mobility throughout LA County. The project prioritization process included as part of Measure M compared the benefits of highway and transit projects relative to each other. This comparison included systemwide impacts; network impacts and benefits to other areas beyond the project's scope were included in the prioritization process. However, providing benefits to each subregion within LA County is an important goal for Metro. Therefore, overall project performance and subregional equity are balanced in the LRTP's investment plan. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
	302	Lancaster and Palmdale have Equity Focus Communities (EFC), but no projects appear to be listed in the Draft LRTP.	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.
	303	Figure 14, only North County project shows I-5 from 14 to Lake Hughes, should be to Parker Road.	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.
	304	Figure 15, I-5 improvements, should be moved from planned to build since fully funded.	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.
	305	Figure 26, when combine all the bus and rail categories, 57% of the funding going towards these categories versus 26% for highways/multimodal projects	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility.
	306	Plan states that complete streets and Active Transportation will come out of roadway money	More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the LRTP performance evaluation are included in the LRTP Technical Document.
	307	Page 70, SHOPP funding estimate LA County, how is the \$22B derived and doesn't Caltrans allocate the SHOPP Program? The NCTC Subregion has successfully worked with Metro and Caltrans to allocate SHOPP funds to the I-5, SR14, SR138, and SR 126.	More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the LRTP performance evaluation are included in the LRTP Technical Document.
	308	Metrolink and Goods Movement very limited discussion. In fact, no projects listed.	We believe this element is addressed appropriately elsewhere in the LRTP.
	309	The Draft does not depict the Subregional list of projects, rather that is listed in a separate Baseline Report from June 2019.	This is addressed in the LRTP Technical Document.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	310	- No mention of the Metro Call For Projects Program.	This is addressed in the LRTP Technical Document.
	311	- Highway Program—Can the SR14 and SR138 access Rural highway grant funds? Why do those rural corridors compete with urban I-5, I-405, I-10, etc. corridors for funds?	This is not directly addressed in the LRTP. We will forward your question on to the appropriate department at Metro.
	312	- June 7, 2019 Draft LRTP Board Report and Baseline Understanding Appendix, page 84, Metro ranks the NCTC Subregion #1 Total Area Subregion, but there is NO SR126 or SR138 on the NCTC specific map shown. Page 86, states Palmdale is largest City in North County—should clarify this for land area? Population would be Santa Clarita largest.	This is addressed in the LRTP Technical Document.
	313	- Will the Subregional Section with maps/descriptions be in the Final LRTP?	This is addressed in the LRTP Technical Document.
	314	- Will there be a Strategic Unconstrained Funding Section?	This will be addressed in the final LRTP prior to adoption.
	315	- No maps show SR138 connecting the I-5 to the SR14.	The map style and map contents were reviewed prior to the adoption of the LRTP. We will share this comment with the appropriate project and design teams.
	316	- SR138 on most maps, but usually covered with the map legend.	The map style and map contents were reviewed prior to the adoption of the LRTP. We will share this comment with the appropriate project and design teams.
	317	- There is no I-5 symbol illustrated in north Los Angeles County, just central Los Angeles.	The map style and map contents were reviewed prior to the adoption of the LRTP. We will share this comment with the appropriate project and design teams.
	318	- Transportation Demand Management (TDM)/Transportation System Management (TSM) programs are not mentioned in the Draft LRTP	The LRTP recognizes that TDM is an important strategy for managing congestion and addressing environmental goals. We will continue to be a regional leader in TDM and look forward to collaborating with our local partners to manage demand, reduce the number of SOV trips, and provide new transportation options. Additionally, Metro recognizes that telecommuting has grown steadily over the past decade and that COVID-19 has dramatically accelerated that trend. We will continue to support and analyze this trend.
	319	- Since the Metrolink Antelope Valley Line Capital and Service Improvements Project is funded, should it be depicted in the Draft LRTP tables?	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.
	320	- How can north Los Angeles County access numerous programs that appear to be centered/focused around the Metro Service Area, like Micro-Transit? Is the TDA Article 8 process supposed to remedy the apparent structural funding inequity to north Los Angeles County taxpayers?	This is not directly addressed in the LRTP. We will forward your question on to the appropriate department at Metro.
	321	NCTC Urges Equitable Funding In conclusion, the NCTC Subregion appreciates the bolstered partnership with Metro and the opportunity to comment on the Draft LRTP—Our Next LA, and we urge meetings with Metro and NCTC staff to discuss the Draft Plan prior to receiving the “matrix” responses in the Final Plan. The NCTC Subregion has sought mobility improvements for north Los Angeles County—the I-5, SR14, SR138, SR126—while seeking improvements to the only rail service to the region—the Metrolink Antelope Valley Line (AVL). The only Metrolink line entirely within Los Angeles County. The NCTC subregion has continually made the case for equitable transportation funding and when given the opportunity to partner with Metro we have seen tremendous results, from receiving federal and state grant awards, to residents using the new transportation improvements at levels way above the rest of Los Angeles County. For many north Los Angeles County residents, transit options have many transfers, take numerous hours, and are not available 24/7 to match their work schedules. For the #1 Subregion in Land Area, the freeway arterial network is part of the transit system residents rely on. The SR14 and SR138 serve many of the Equity Focus Communities in the Antelope and Santa Clarita Valley’s and residents are seeing accidents and fatalities rise above “acceptable” Caltrans standards. Funding must be included in the 2020 LRTP Plan to provide safety-related improvements by both Metro and Caltrans to north Los Angeles County residents and businesses using the SR14 and SR138. The NCTC Subregion has seen enough studies and plans for safety related fixes for the SR14 and SR138—they need to be funded and completed in this LRTP Plan. North Los Angeles County residents should not have to endure more fatal accidents due to lack of highway funding. The NCTC Subregion has sought viable alternatives to the freeway, but the region is constantly told to wait your turn for Metrolink Antelope Valley Line rail improvements. We urge Metro and Metrolink to fund the \$698.1 million AVL improvements in the 2020 LRTP Plan—now. The Census Bureau and Metro demographic map facts cannot be swept under the rug any longer, Equity Focus Communities exist in north Los Angeles County and it is time Metro acknowledges the Subregion needs “boxes to stand on” with action, planning assistance, and funding. The NCTC Subregional staff has limited resources to properly address the Equity Focus Communities myriad of issues. The NCTC JPA needs Metro’s assistance. The NCTC Subregion looks forward to working with Metro and all transportation partners in Los Angeles County to make critical mobility investments in north Los Angeles County over the next 30 years.	Comment noted.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
Los Angeles Department of Water and Power	322	<p>The Los Angeles Department of Water and Power (LADWP) appreciates this opportunity to submit comments on Metro’s 2020 Long Range Transportation Plan. The proposed plan shall take into consideration any impacts to LADWP’s infrastructure. LADWP reserves the right to review and approve improvements within LADWP facilities. In order to fully address potential Right of Way issues, LADWP is providing the following comments and conditions which include requests for additional information from the project proponent:</p> <p>The Right of Way Engineering Group on behalf of Los Angeles Department of Water and Power’s (LADWP) Power System coordinated the review of the request and determined additional information is needed before any thorough review can be provided.</p> <p>A) The information provided, to date, is inadequate for properly reviewing the proposed Metro improvements. We therefore reserve the right to comment until more detailed information is provided. The more detailed information shall include, but not limited to, impacted Assessor’s Parcel Numbers (APN), property lines, plans showing setbacks from the proposed project areas to transmission line towers, including all above ground objects (i.e. fencing, gates, posts, structures), lighting posts, excavations, and any temporary structures that may affect the LADWP facilities.</p> <p>B) Provide plans illustrating the LADWP Transmission Line Right of Way boundaries, including distribution power lines and waters lines, within the Metro improvements. Include towers and clearances from proposed improvements. Also, provide grading plan and utility plans, including any other plans illustrating the impacts to the LADWP Transmission Line Right of Way, including distribution power lines and water lines.</p> <p>C) Relocation of LADWP facilities may be required if the impacts by Metro’s improvements interfere with the operation and maintenance of Power System facilities. The relocation of these facilities will be at the sole cost of Metro. Please note, Water System’s review has not been incorporated into this response and will require their review when more detailed plans are provided.</p> <p><u>Be advised the following conditions shall also apply:</u></p> <p>3) Metro shall be responsible for the maintenance of the project areas and shall keep the area in a neat and clean condition within LADWP Facilities. It is our understanding Metro will assume responsibility for the maintenance of the project improvements, and for all the associated risks and liabilities. LADWP will not be liable for any damage to Metro improvements by LADWP’s operation and maintenance activities.</p> <p>4) A permanent, unobstructed 20-foot wide roadway (patrol road), accessible at all times by LADWP maintenance personnel shall be provided and maintained. A wider roadway width may be required on curved segments. The roadway must remain open and unobstructed, excluded from any watering and kept as dry as possible at all times.</p> <p>5) No equipment over fourteen-feet high shall be used near the LADWP Transmission Lines without the written permission of the LADWP. Equipment higher than fourteen-feet will require submittal of a Conductor Survey to the LADWP Transmission Engineering Group to ensure clearances meet the State of California, Public Utilities Commission, General Order No. 95.</p> <p>6) Conductor Clearances will be subject to the review and approval of LADWP’s Transmission Engineering Group. The LADWP may need a copy of the conductor survey illustrating the cross sections showing our existing conductors and proposed improvements. See attached LADWP Conductor Survey Instructions. The Transmission Engineering Group will use the data to calculate and confirm that conductor clearances meet the State of California, Public Utilities Commission, General Order No. 95.</p> <p>7) All construction activities shall adhere to the LADWP’s Standard Conditions for Construction. See attached.</p> <p>8) Provide the location and elevations (heights) of all above and below ground structures, including the cross sections of existing and proposed improvements within and adjacent to the LADWP Transmission Line Right of Way. All ground elevations are to remain unchanged from existing conditions after proposed improvements associated with Metro’s improvements are completed. Cut & fill slopes inside the LADWP Transmission Line Right of Way steeper than 2 horizontal to 1 vertical require retaining structures or geotechnical report approval. Note: Grading activity resulting in a vertical clearance between the ground and the transmission line conductor elevation less than thirty-five (35) feet or as noted in the State of</p>	Comment noted.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
		<p>10) All aboveground metal structures including, but not limited to, pipes, drainage devices, fences, and bridge structures located within or adjoining the right of way shall be properly grounded, and shall be insulated from any fencing or other conductive materials located outside of the right of way. For safety of personnel and equipment, all equipment and structures shall be grounded in accordance with State of California Code of Regulations, Title 8, Section 2941, and National Electric Code, Article 250.</p> <p>11) The right of way contains high-voltage electrical conductors, therefore, Metro shall utilize only such equipment, material, and construction techniques that are permitted under applicable safety ordinances and statutes, including the following: State of California Code of Regulations, Title 8, Industrial Relations, Chapter 4, Division of Industrial Safety, Subchapter 5, Electrical Safety Orders; and California Public Utilities Commission, General Order No. 95, Rules for Overhead Electric Line Construction.</p> <p>12) California Code of Regulations, Title 8, Section 2700 defines “qualified electrical workers” as “a qualified person who by reason of a minimum of two years of training and experience with high-voltage circuits and equipment and who has demonstrated by performance familiarity with the work to be performed and the hazards involved.” At all times during installation, replacement, and/or maintenance of any improvement authorized within the LADWP Transmission Line Right of Way, Metro shall have at least one qualified electrical worker on site to observe said work and ensure all OSHA required safety protocols are followed.</p> <p>13) No grading shall be conducted within the LADWP Transmission Line Right of Way without prior written approval of the LADWP.</p> <p>14) No structures or improvements shall be constructed within the LADWP Transmission Line Right of Way without prior written approval of the LADWP.</p> <p>15) An area at least 100 feet around the base of each tower must remain open and unobstructed for necessary maintenance, including periodic washing of insulators by high pressure water spray.</p>	
Los Angeles County	329	<p>We have reviewed Metro’s draft Long Range Transportation Plan and have the following comment: Metro and Los Angeles County have a long history of partnership and investment on Traffic Signal Synchronization Projects however specific funding is not identified in the proposed plan for these projects. Traffic signal coordination is considered by the USDOT as being under the general ITS umbrella. On Page 36, Priority Area 2, please consider adding traffic signal synchronization. Strategy 2.1, please add to Action 2.1c. “Implement arterial ITS programs, including Countywide Signal Priority Program and traffic signal synchronization.”</p>	<p>This will be addressed in the final LRTP prior to adoption.</p>
City of West Hollywood	330	<p>Thank you for the opportunity to review the draft 2020 Metro Long Range Transportation Plan (LRTP). Our comments center around the Crenshaw/LAX Line Northern Extension (CNE) and how it is represented in Figure 8 and Figure 9, the “Major Transit Project” list and “Planned Transit Projects” map on pages 20 and 21 respectively. The Metro Board is expected to consider authorizing a contract for the CNE Environmental Impact Report (EIR) in August 2020. Based on multiple discussions with Metro Staff, we anticipate a recommendation for further analysis of several alignments in Metro’s upcoming environmental analysis including the Hybrid alignment, the preference of the City of West Hollywood and a number of other stakeholders, as well as a potential terminus station at the Hollywood Bowl rather than the Hollywood/Highland Metro Red Line Station. The “Planned Transit Projects” map (Figure 9) on page 21 of the Draft LRTP document shows a single alignment for the CNE project that appears to run along La Brea and stops short of the Hollywood Bowl. We concur with the footnote below the map which reads “Final alignments to be identified during environmental processes.” However, since neither the City of West Hollywood nor the City of Los Angeles has formally endorsed the La Brea alignment, it is inappropriate for it to remain the placeholder in Metro documents where only one alignment is shown. We understand that the map in the Draft LRTP is not intended to prejudice the selection of any specific alignment and respectfully request that either the Hybrid Alignment or a more generalized representation of the CNE project that is not specific to any one alignment be shown in the Final LRTP.</p> <p>The “Major Transit Project” list (Figure 8) on page 20 lists \$4.7 Billion and 2047 as the open year of the CNE project. This list does not currently appear to differentiate between projects seeking acceleration and the Measure M timeline, but if changes are made to this list to highlight acceleration efforts underway with other projects, we respectfully ask that a footnote be included to acknowledge ongoing interjurisdictional efforts to accelerate the CNE project in accordance with the Board Adopted Acceleration Policy and next steps for the CNE project such as the City of West Hollywood Funding and Project Delivery Strategic Plan, the City of Los Angeles Council Motion Supporting Acceleration of the CNE, and the upcoming Metro EIR to be conducted in fulfillment of Metro’s 2016 commitment to get the project shovel-ready for future funding opportunities. We look forward to continued and expanded partnership with Metro as we work to implement the transformative mobility benefits of Measure M and the Draft LRTP. Thank you for your attention to this matter.</p>	<p>We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
City of Claremont	333	<p>I am writing on behalf of the City of Claremont to request that the draft plan be amended to accurately reflect the status of a critically-important project for our City and our residents, workers, and students - completion of the Metro Gold Line Foothill Extension to Claremont.</p> <p>The Draft LRTP currently includes completion of the Foothill Extension to Claremont in 2028, without recognition that the project has a \$450 million funding gap. The project is under construction now, but only the first nine miles of the 12.3 mile project is fully funded. We request that the plan be amended to accurately reflect the current funding gap, and request that the extension to Claremont be included as part of any strategic unfunded project list that staff is developing to be part of the final plan.</p> <p>The City also urges Metro to help secure funds necessary to make the extension to Claremont possible within the currently underway design-build project. The Foothill Gold Line Construction Authority, the agency responsible for planning and building the line, has a firm fixed price bid in hand that is good through October 2021 and would allow the project to be completed to Claremont by 2028 (meeting the Metro board goal of completing the project to Claremont by the 2028 Olympic Games). As Metro seeks state and Federal infrastructure funding, we urge that this truly shovel-ready project be included on the list of projects for funding.</p>	<p>We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.</p>
City of Los Angeles	339	<p>The City of Los Angeles Departments of Transportation (LADOT) and City Planning (LACP) compliment the Los Angeles County Metropolitan Transportation Authority (Metro) on its substantial planning and public outreach efforts to develop the Draft 2020 Long Range Transportation Plan (draft 2020 Plan), released on May 29, 2020. LADOT leads transportation planning, project delivery, and operations in the City of Los Angeles and LACP creates and implements plans, policies, and programs that support community health, sustainability, and inclusivity in the City's neighborhoods. LADOT and LACP have reviewed the draft 2020 Plan and appreciate the opportunity to provide comment. We understand that Metro is unique among the nation's transportation agencies, serving as the primary transportation planner and coordinator, designer, builder, and operator for the most populous county in the country. As the regional transportation planning agency, Metro is responsible for advancing the regional multimodal transportation system to provide safe, affordable, and equitable mobility for Los Angeles County residents, workers and visitors, as well as to support the region's economy and help achieve local and regional environmental and community quality of life goals. An update to the 2009 Long Range Transportation Plan, the draft 2020 Plan presents Metro's approach to planning, constructing, managing, and modernizing the Los Angeles region's multimodal transportation system, as well as highlights how the regional agency must partner with the City of Los Angeles and the other 87 cities and unincorporated areas in the County to deliver this ambitious scenario over the next 30 years. LADOT and LACP laud Metro's plans to add 106 miles of fixed guideway transit, improve 22 transit corridors, and deliver 200 stations for the regional public transit network over the next 30 years - the most aggressive transit expansion in the nation.</p> <p>Beyond transit investments, we appreciate that Metro's draft 2020 Plan includes funding to maintain and modernize the region's system of roads and freeways, to deliver multi-use active transportation facilities, to enhance bus travel, and to expand access to on-demand mobility options such as bike sharing, car sharing, micro transit, and freight-focused technologies. Also, Metro's Transit Oriented Communities policy and planned joint development projects align well with the City of Los Angeles' work to integrate land use and transportation planning to support affordable housing production and job creation near high-quality public transit options with safe and comfortable connections for transit users' first last mile journeys. Consistent with the City of Los Angeles' transportation assessment guidelines, the draft 2020 Plan acknowledges that it is not possible, nor desirable, to physically expand vehicle capacity on the region's network of arterials and freeways to alleviate congestion. Therefore, Metro must partner with cities and Caltrans to implement effective management strategies that maximize the person throughput and utilize existing transportation facilities, such as transit priority facility enhancements, active curb management strategies, integrated corridor management solutions, innovative congestion pricing, and improved parking management. Metro estimates that implementation of the major capital projects, programs, and bold policies included in the draft 2020 Plan will significantly improve the regional transit system's coverage, enhancing access to high-quality transit, while resulting in modest emissions reductions. Today, only 8% of Los Angeles County residents and 16% of the region's workers have access to a Metro rail or bus rapid transit station within a 10-minute walk. Metro estimates that implementation of the draft 2020 Plan would increase access to transit so that 21% of residents and 36% of workers would be a 10-minute walk to high-quality transit. Metro's scenario modeling anticipates that delivering the draft 2020 Plan would increase daily transit trips by 81%, while decreasing greenhouse gas (GHG) emissions by 19% and particulate matter emissions by 17%, relative to forecasted 2047 levels.</p>	<p>Comment noted.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	340	As Metro finalizes the draft 2020 Plan, we encourage the following considerations: Develop and include a fiscally unconstrained strategic list of projects that may be anticipated for future consideration, if additional new revenue or funding opportunities become available. Currently, Metro's draft 2020 Plan uses a series of projected revenue and organizational capacity assumptions to present a fiscally constrained list of projects for Los Angeles County. However, we understand that the listed projects will not meet all future mobility needs and consumer demands forecasted for 2020-2050. Thus, Metro can continue leading the region to meet momentous challenges in the coming decades – including but not limited to serving a growing, diverse population, adapting to the global climate change impacts, responding to technological changes and new innovations – by developing a fiscally unconstrained list of regional transportation investments and associated bold policies. This project list may inform the Southern California Association of Government's (SCAG) preparation of the next Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and related regional transportation demand forecasting model. This list can also articulate the need for mobility improvements beyond the current Measure R and Measure M infrastructure program and mobility investments required to meet state sustainability goals. We propose a list of projects for consideration in a fiscally unconstrained strategic project list in Attachment A. Prior to releasing the Countywide Strategic List to SCAG for future updates and amendments to the RTP/SCS, we request that Metro contact LADOT's Transportation Planning and Policy Division manager, Rubina Ghazarian, to ensure you have the City's most recent fiscally unconstrained strategic project list.	This will be addressed in the final LRTP prior to adoption.
	341	Increase coordination with City Planning to align Metro's long range planning efforts with the city's evolving mobility networks. Mobility Plan 2035, the transportation element of the City's General Plan, identifies networks of streets that the City prioritizes for transit, bicycle, and pedestrian infrastructure improvements. For example, the Transit Enhanced Network (TEN) results from a comprehensive data analysis of factors such as ridership, destinations, employment, and population that will evolve as transit needs change and the City updates Community Plans (land use plans) and potentially amends the TEN. Metro has done a noteworthy job of providing transit coverage on the TEN as it is currently configured through the NextGen Bus Plan proposal, and we encourage ongoing collaboration between Metro and City Planning staff. Metro may further consider how to align its countywide active transportation planning and investments with the City's Bicycle and Pedestrian Enhanced Networks.	Metro coordinates with and supports our local, regional, and state partners. We cannot address all the transportation challenges facing LA County alone and we rely on the help of our partners. We look forward to continued collaboration to advance our vision for LA County.
	342	Discuss how projects can be prioritized to directly benefit Equity Focus Communities. Metro's robust equity platform framework, which includes its TOC and joint development policies, guides the implementation of programs aimed at reducing transit fare, providing local business support, and offering a variety of youth programs. Building on these initiatives, Metro has developed data-driven tools to elevate equity in decision-making such as the designation of Equity Focus Communities and a Transit Propensity Index that considers physical, locational, and socio-economic factors in estimating potential transit demand. The draft 2020 LRTP also proposes development of a Racial and Socioeconomic Equity Action Plan. We support these tools and encourage Metro to continue to create systems and structures that ensure data-driven and transparent implementation of its equity-focused policies and action plans. Metro's draft 2020 Plan defines Equity Focus Communities (EFCs) as areas where households are low-income, and either majority non-white or have no access to a vehicle -- about 30% of the entire county's population. Metro's acknowledgement that people living in EFCs are affected by historic disinvestment, experience reduced access to opportunity and housing, and are likely burdened by environmental injustices presents new opportunities to address these issues in the coming decades. The draft 2020 Plan presents a powerful draft definition for equity and commits to investing in EFCs. The Final 2020 Plan can include more meaningful discussion on how Metro's investments will be prioritized to directly benefit and improve the lives of people living in EFCs and how funding will be allocated for capital projects on the basis of equity. As one example, the NextGen Bus Plan sets out to improve bus service quality in communities with the greatest mobility needs by focusing bus service improvements in LA County Census Tracts with higher Transit Propensity Index values. The assumptions used for that Index closely align with the characteristics of present-day transit riders who continue to ride Metro buses, despite the systemwide ridership decline observed during the current COVID-19 public health emergency. This data can inform how Metro prioritizes future transit investments. The Final 2020 Plan should similarly reconsider the inclusion of projects that may exacerbate the barriers to mobility and burdens of air pollution and poor health outcomes associated with transportation-related emissions experienced by Los Angeles County residents. These projects include: o Planned projects that widen or otherwise increase freeway capacity o Funding arterial street widening projects o Other projects, programs, or policies that induce single-occupancy vehicle travel	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions. The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	343	Create more opportunities to utilize development incentives in transit-reliant communities. State and local streamlining and affordable housing incentive programs present further opportunities to add much-needed affordable housing near high-quality transit. As Metro finalizes the alignments of major capital transit and rail lines, we encourage Metro to think strategically about the location of stations that can support development incentives in transit reliant communities that have been disinvested. The configuration of Metro's bus network in regard to frequency and stop locations also impacts the availability of affordable housing and development incentives. DCP looks forward to continuing discussions with Metro to understand how the consolidation of rapid and local bus lines under NextGen will alter the availability of development incentives through the state's density bonus program and CEQA streamlining through the designation of transit priority areas.	Metro is committed to addressing working with local partners to address the housing shortages facing our region. Through our Joint Development Program on Metro-owned land, and through our Transit Oriented Communities program, we'll seek to create new housing around transit and will encourage transit-supportive land use policy.
	344	Assess sustainability and environmental benefits of projects, programs, and policies to inform decision making. Metro's update of the Long-Range Transportation Plan offers an opportunity to propose inspired strategies to help the region achieve State climate action and sustainability targets. In conformance with Senate Bill 743, Senate Bill 32, and statewide sustainability goals, we encourage Metro to more closely assess the performance of proposed strategies to effectively reduce vehicle miles traveled (VMT) and associated greenhouse gas emissions, improve access to jobs and services through mobility management, and consider sustainability strategies in all projects. We suggest that Metro compare multiple scenarios to prioritize project lists and determine suitability of projects, programs, and plans given the urgent need for significant climate action. As an example, in designing or retrofitting freeway projects we encourage Metro to coordinate with Caltrans to integrate natural environment protection and mitigation measures, such as wildlife crossings and culverts.	Sustainability is a guiding principle in this LRTP and a foundational element of our activities. Metro believes that environmental sustainability should carry through to each project, program, and policy. The LRTP details several specific strategies to address sustainability and our new report that will be published soon, Moving Beyond Sustainability, provides greater detail on how Metro will lead in sustainability.
	345	Reallocate dedicated funding to regional bus capital and regional active transportation facilities to enhance the draft 2020 Plan's sustainability and environmental justice performance. Metro's draft 2020 Plan provides \$400 billion for investments in transportation over the next 30 years, with over 70% of funding managed directly by Metro from federal and state programs or generated by four county voter-approved sales tax measures. The draft 2020Plan proposes to spend just over \$331 billion (83%) of countywide funding over the next three decades directly on regional multimodal transportation projects, programs, and policies in accordance with the following breakdown: nearly \$145 billion (37%) in investments for countywide transit operations and state of good repair; about \$76 billion (19%) in road investments; nearly \$61 billion (15%) in rail and transitway capital investments; just over \$22billion (5.5%) in freeway and managed lane investments; nearly \$21 billion (5%) in bus capital investments; and nearly \$7 billion (1.7%) in regional and local active transportation facility investments. We encourage Metro to review and reassess the currently proposed funding allocations for bus capital and active transportation facilities to ensure that Metro and its local partners can deliver effective regional active transportation and bus transit priority facilities across jurisdictional boundaries. The City of Los Angeles is eager to continue working with Metro to create a regional active transportation network, as expressed in Metro's Active Transportation Strategic Plan, and implement bus transit priority facilities, through our NextGen Bus Speed Working Group and beyond, to encourage more people to walk, roll, bicycle, or easily transfer between integrated networks. Significant investments in sustainable transportation infrastructure, above and beyond the proposed in the draft 2020 Plan, will meet LA County stakeholders' calls for better transit, complete streets, and access to opportunity. Reallocated funding to support a greater focus on advancing sustainable mobility networks may yield greater VMT and GHG reductions as called out in LA's Green New Deal.	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
	346	Invest in regional transportation data and modeling tools available to jurisdictions and external partners to strengthen regional coordination. Currently, Los Angeles County cities, subregional entities, and their external partners tend to use varied transportation datasets and analysis methods to help plan, prioritize, and evaluate transportation improvements within their jurisdictions. Varied modeling methodologies, technical capacity, and incompatible evaluation frameworks makes coordination across jurisdictional boundaries challenging and inefficient. Similar to the outreach and information exchange used to build regional consensus for the Metro NexGen Bus Plan, we hope that Metro will augment its draft 2020 Plan scenario modeling methods using rich origin-destination data, while also making these datasets and analytics available for local agencies for local transportation planning. We also encourage Metro, in collaboration with SCAG, to lead the region in conforming to the requirements of Senate Bill 743by investing in sub-regional sketch planning tools that can lead to more consistent and transparent evaluations. Similarly, regional location based data services and accessibility analysis tools can streamline and improve access to information for jurisdictions, strengthening regional planning efforts.	Thank you for this comment. As a Regional Transportation Planning Agency, Metro strives to be a resource for the local jurisdictions within LA County. We continually look for new ways to support the planning and implementation efforts of our local partners. We will share this comment with the appropriate departments within Metro.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	347	Advance system security and public trust enhancement strategies that are inclusive and equitable. We acknowledge and applaud Metro's continued efforts to address riders' safety concerns. Metro's aim to improve riders and communities' experience with the transit system and other agency mobility services can be bolstered by investing in strategies recommended in Metro's Understanding How Women Travel Study Report, Girls and Women Governance Council and Customer Experience Plan, including: o Develop a Metro Transit Ambassadors program to improve customer service o Expand access to TAP reloading and pass purchasing countywide o Maintain rider amenities at stops and stations to enhance safety and reduce anxiety o Offer safe and affordable on-demand options near major transit hubs o Implement inclusive fare policies (i.e., fare capping, easier transfers) o Enhanced cleanliness and safety protocols on the Metro transit system in response to the current COVID-19 public health emergency should continue focusing on protecting transit operators	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
	348	Invest in mobility management solutions that increase transportation system efficiencies and improve equitable access to destinations. Los Angeles County is home to 4.4 million employees, with a projected increase to 5.4 million by 2047. Mobility management solutions, such as a countywide Transportation Demand Management program for existing employers can help build a regional foundation strengthening jurisdictional ordinances. This framework can result inconsistent regulations, increased awareness and compliance, a larger menu of strategies, and monitoring data that allows for comparison and iteration. A regional TDM framework can pave the way for investment in regional mobility as part of land use developments' TDM strategies, mitigation measures, or through a regional VMT exchange program – similar to cap and trade. LADOT is interested in collaborating with Metro and jurisdictions in LA County to expand our mobility investment toolkits over the next 30 years to include mobility management solutions.	The LRTP recognizes that TDM is an important strategy for managing congestion and addressing environmental goals. We will continue to be a regional leader in TDM and look forward to collaborating with our local partners to manage demand, reduce the number of SOV trips, and provide new transportation options. Additionally, Metro recognizes that telecommuting has grown steadily over the past decade and that COVID-19 has dramatically accelerated that trend. We will continue to support and analyze this trend.
San Gabriel Valley Council of Govts	360	On behalf of the San Gabriel Valley Council of Governments (SGVCOG), we are writing to express our appreciation for the opportunity to comment on the draft Long Range Transportation Plan Update. The SGVCOG is a joint powers authority of thirty-four member agencies that are located in the San Gabriel Valley. The SGVCOG is also the largest and most diverse sub-regional government entity in Los Angeles County. The SGVCOG strongly supports Metro's plan to deliver significant mobility benefits to Los Angeles County through major capital projects, programs, and bold policies. We deeply appreciate the stakeholder process your agency is undertaking and the ability to weigh in on the proposed update to the Long Range Transportation Plan. We want to take the opportunity to thank Metro for acknowledging the critical need for infrastructure and transportation improvements in the San Gabriel Valley, especially for including the following projects in the draft update: • Alameda Corridor East Grade Separation Phase 2 • Eastside Extension Phase 2 Transit Corridor • Gold Line Transit to Claremont • I-605/I-10 Interchange • SR-57/SR-60 Interchange Improvements • SR-60/I-605 Interchange HOV Direct Connectors • SR-710 North Corridor Mobility Improvement Projects *The plan should indicate additional funds are needed to extend the line to Claremont.	Comment noted.
	361	Implementing Cleaning Practices to Protect Riders from Disease Transmissions This action should be included in Strategy 1.6 under Priority Area 1. While the SGVCOG recognizes that Metro has been actively implementing protective measures to protect employees and residents from being exposed to COVID-19, it is vital to ensure that these practices continue in the future. Metro should continue to clean buses and trains daily with EPA-approved disinfectants and actively review cleaning protocols to ensure that they are up-to-date.	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.
	362	Support Efficient Goods Movement Strategy 2.5 under Priority Area 1 should be rewritten to reflect "support efficient and sustainable goods movement." Goods movement projects and the Los Angeles County Goods Movement Strategy must emphasize air quality improvements, safety, and freight efficiency.	This will be addressed in the final LRTP prior to adoption.
	363	Complete the San Gabriel Valley Transit Feasibility Study and Implement the Resulting Recommendations We recommend this action be added to Strategy 2.6 under Priority Area 2. While the San Gabriel Valley Transit Feasibility Study will be identifying alternative transit solutions to serve the mobility needs of the San Gabriel Valley, implementing the recommendations will effectively address regional circulation issues	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.
	364	Support the San Gabriel Valley Regional Bikeshare Program We also recommend adding this action to Strategy 3.3 under Priority Area 3. The San Gabriel Valley Regional Bikeshare Program was recently launched earlier this week in South El Monte with the goals of decreasing drive-alone trips and increasing the share of bicycling trips in the San Gabriel Valley. Effective active transportation infrastructure is critical in providing connectivity to the transit hubs in the San Gabriel Valley.	We believe this element is addressed appropriately elsewhere in the LRTP.
	365	Indicate Extension of the I-10 ExpressLane east of I-605 to the San Bernardino County Line The SGVCOG requests Metro label the improvements in Figure 15 "Planned Highway Projects" as the I-10 ExpressLane extension to the San Bernardino County Line.	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	366	Additionally, we highly recommend Metro staff to increase the size of monotone maps that are included in the draft, as many of these maps are ineffective in illustrating projects and routes in the draft update due to their minimal sizes. The SGVCOG looks forward to continued opportunities to comment on specific proposals and plans.	The map style and map contents were reviewed prior to the adoption of the LRTP. We will share this comment with the appropriate project and design teams.
Strategic Actions for a Just Economy	199	Hello,I am writting this on behalf of Strategic Actions for a Just Economy (SAJE) who is a member of the ACT LA Coalition who advocates for Transit Justice.The plan appears to relate the ability to reduce transit costs specifically with congestion pricing. We do not believe that the ability to offer fare-free transit should rely exclusively on congestion pricing, especially when there is so much research to do regarding the effects that congestion pricing has on low-income communities. The LRTP names congestion pricing as an overall goal for the development and improvement of the transit system in the county. Our coalition has some concerns and reservations due to currently unanswered questions about how congestion pricing is currently affecting our county and how the expansion of congestion pricing will impact our constituencies. Congestion pricing has equity challenges; any time you institute a toll for access you exclude low-income people that are unable to pay. Furthermore, viable alternatives for some essential trips such as work, school and medical appointments may not be available until better bus service is achieved. To mitigate these challenges, we should improve public transportation quality and make transit free before congestion pricing is actualized. Lastly, the Long Range Transportation Plan was released in the middle of the pandemic that we are currently suffering from in our region and world wide. It is irresponsible that the draft plan does not make mention of the effects that this has caused on its transit dependent citizens. We urge Metro to take into consideration our questions and concerns regarding the draft plan. Thank you.Maria Patiño GutierrezProgram Coordinator SAJE	<p>Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.</p> <p>Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.</p>
	327	<p>Dear Metro Board and Staff,</p> <p>We write this letter to comment on the "Our Next LA" 2020 Long Range Transportation Plan. We believe that the overall goals of the Long Range Transportation Plan should align with Metro's Equity Platform and prioritize the needs of the mostly low income residents of the County of Los Angeles who are transit dependent.</p> <p>ACT-LA is made up of 37 organizations from LA County that have come together "to create community transit – just, equitable, sustainable transit systems and neighborhoods for ALL people in Los Angeles, placing the interests of low-income communities and communities of color first as we create a more sustainable city." As a coalition we are advocating for Metro to become a sanctuary for the Los Angeles public, to provide a high level of service and enact policies that would result in "transit justice," such as:</p> <ul style="list-style-type: none"> - Eliminate fares. Los Angeles residents are already paying for the transit system through our sales tax. The average household income for a person who rides the bus is \$26,900, with over 57% of Metro bus riders living below the poverty line. - End policing contracts. We must invest in true community-centered safety solutions that make ALL riders feel safe. Also, we can use the hundreds of millions of dollars saved on improving bus service, bus infrastructure and eliminating fares. - Focus on improvements to the bus system. New train lines have taken the air out of the room when it comes to Metro's mission of creating a world class system. Metro staff and board members often say that buses are the workhorses of the system, and clearly buses are what most riders depend on. Our coalition includes organizations who work with transit riders, the majority of whom are bus riders and who have expressed to us the need for a better, fare-free transit system. Therefore, we support the Long Range Transportation Plan's efforts to identify access to opportunity, including by specifically adding a goal of identifying ways to "Reduce Transit Cost." Our members have told us that they often have to choose between paying for a bus pass for a month to get to and from work or to pay for adequate groceries. Although Metro currently has fare reduction programs, the reality is that many of these are not currently accessible to its riders, whether because of lack of education regarding the program, or because even though riders are low income, they are above the threshold to qualify. Our coalition is committed to working with Metro to identify ways to achieve the goal of fare-free transit in the short-term rather than longer-term. Given our priorities listed above, our coalition is in full support of discussions within Metro to eliminate fares. However, we strongly believe this goal needs to be decoupled with the goal of regional congestion pricing. The plan appears to relate the ability to reduce transit costs specifically with congestion pricing. We do not believe that the ability to offer fare-free transit should rely exclusively on congestion pricing, especially when there is so much research to do regarding the effects that congestion pricing has on low-income communities. <p>The LRTP names congestion pricing as an overall goal for the development and improvement of the transit system in the county. Our coalition has some concerns and reservations due to currently unanswered questions about how congestion pricing is currently affecting our county and how the expansion of congestion pricing will impact our constituencies. Congestion pricing has equity challenges; any time you institute a toll for access you exclude low-income people that are unable to pay. Furthermore, viable alternatives for some essential trips such as work, school and medical appointments may not be available until better bus service is achieved. To mitigate these challenges, we should improve public transportation quality and make transit free before congestion pricing is actualized.</p> 	<p>Metro is conducting a Comprehensive Pricing Study. The study goals are revenue, ridership, equity, security, and customer experience–, and will be considered against deliverability within the context of the near and long-term agency recovery from the COVID-19 pandemic.</p> <p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
		<p>Although the LRTP has many ambitious goals to reduce congestion in the corridors, we question whether congestion pricing may just redirect traffic to other routes. We are concerned about the potential for pricing to redirect traffic to neighborhoods that already experience higher levels of pollution due to historical environmental racism. For example, the 110 freeway cuts through South Los Angeles and many low income communities. Presently, congestion on the 110 pushes traffic that would otherwise be on the freeway to the already polluted areas in our communities; congestion pricing may exacerbate this. Lastly, the Long Range Transportation Plan was released in the middle of the pandemic that we are currently suffering from in our region and world wide. It is irresponsible that the draft plan does not make mention of the effects that this has caused on its transit dependent citizens. We urge Metro to take into consideration our questions and concerns regarding the draft plan. Thank you.</p>	<p>Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.</p>
Nature for All and Co-signatories	336	<p>Dear Fabian Gallardo and LA Metro Board of Directors; On behalf of the undersigned organizations, we would like to thank you for your work in developing the Long Range Transportation Plan at METRO LA and for the opportunity to provide comments on the Draft Plan released in May 2020. Since we work directly in park-poor communities and other underserved areas, we understand how lack of transportation to nature can negatively affect these communities' public health. Our goal is to ensure that priority is given to funding meaningful community access for those that need it most and, although we are pleased with the Draft, we offer the following recommendations to further amplify its potential for success:</p> <ol style="list-style-type: none"> 1. Adding a section on Metro's Transit to Parks Strategic Plan Our concerns along with our recommendations are explained in more detail in the comments below. Access to Parks As we all are aware, there is a lack of access to natural open spaces, particularly in underserved communities. Additionally, the current COVID pandemic has deepened our understanding that access to nature is vital and essential to improve the communities' overall public health. Metro recognized the opportunity to address this inequity with the adoption of the Transit to Parks Strategic Plan. Unfortunately, the Long Range Transportation Plan does not reflect this commitment to improving equity and the quality of the transit system. A lot of work and effort was put into Metro's Transit to Parks Strategic Plan, which presents a systematic vision for increasing access to parks and open space Countywide. We recommend adding the Metro Transit to Parks Strategic Plan as a strategy under Access to Opportunity, in order "to find targeted, holistic ways to increase access to parks and open spaces, especially for communities in need." We refer to this Strategic Plan as it provides recommendations on transit strategies and initiatives that link people to parks. In fact, the Transit to Parks Strategic Plan states its efforts would "inform the LRTP update by providing recommendations on transit strategies and initiatives that link people to parks. The LRTP will utilize performance metrics that may include those relating to access to parks and open space which can be informed by this Plan." Thus far, we have not seen this reflected in the LRTP, which we believe is the best opportunity to ensure investments are made in our communities to ensure overall public health through access to parks and open spaces. 	<p>Comment noted.</p> <p>This will be addressed in the final LRTP prior to adoption.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
		<p>2. Provide a more substantive examination of the strategies to be used to implement Complete Streets throughout the County</p> <p>Complete Streets- Active Transportation During the last few months of the COVID-19 pandemic, we have seen how a rapid shift in economic opportunities has had a dramatic impact on how our streets are used around LA County. With fewer cars on the road, more people than ever turned to walking and biking, which rapidly highlighted how much of LA County still struggles with inadequate human-centered road infrastructure. While we appreciate the efforts being made to provide off-street options, such as the Rail-to-Rail corridor and gap closure of the LA River Trail in Central LA, we believe that even more can be done to help provide access to economic and recreational opportunities to lower-income park-poor communities. Our key recommendation, with regards to Complete Streets, is to provide a more substantive examination of the strategies to be used to implement Complete Streets throughout the County. For example, a greater commitment by Metro to fund and implement Complete Street projects along economically sensitive corridors in low-income communities of color would be a welcome addition to the current narrative. Such changes would make biking and walking more welcome along these corridors, driving more slow traffic that helps support small businesses. In communities where sidewalk vending is a common driver of economic opportunity, a commitment by Metro to prioritize streetscape redesigns to ensure greater sidewalk space to improve mobility for pedestrians while allowing sufficient space for economic opportunity. These more specific types of commitments would demonstrate to our communities that Metro understands the potential impacts that Complete Streets can have on the larger growth of our communities.</p>	<p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
	336	<p>3. Clarify how equity Focus Communities are being prioritized for investments</p> <p>Additionally, we recommend to Metro that in funding and installing infrastructure that aligns with the Complete Streets Policy to focus on those areas that have traditionally been underinvested and currently exhibit a lack of much needed infrastructure improvements. These communities are typically areas with the greatest need, but frequently receive the least investment, which means that they continue to lag further and further behind in access to opportunity unless deliberate efforts are made to acknowledge and close those gaps. Access to Opportunity We are impressed with some of the strategies in this section and we want to applaud Metro for trying to incorporate Equity into all of its efforts. We want to particularly uplift the discussion to support and work with Small Business throughout the development of all projects. We would like to request that you clarify some of these elements such as, how Equity Focus Communities are being prioritized for investments, and if Metro is employing any strategies beyond Joint Development Projects to realize inclusive Transit Oriented Communities. Additionally, we encourage Metro to state its goal that joint development projects contain at least 40% of the units for affordable housing. Conclusion We thank you again for your thoughtfulness in developing the Long Range Transportation Plan and for this valuable opportunity to submit comments and suggestions on them. Our organizations are excited to see Metro invest in promoting equitable transportation options. We look forward to your response and to be able to work with you on strengthening the implementation of this plan. If you should have any questions regarding this letter, please do not hesitate to contact any of the organizations listed below who can work with Metro to improve this Plan..</p> <p>Sincerely, Amy Lethbridge Community Nature Connections, Eli Kaufman LA Bicycle Coalition, David Diaz Active SGV, Bryn Lindblad Climate Resolve, Belinda Faustinos Nature for All, Daniel Rossman The Wilderness Society, Christy Zamani Day One Pasadena</p>	<p>Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.</p>
MoveLA Coalition and Co-signatories	349	<p>On behalf of the undersigned organizations, we appreciate the incredible level of detail and public engagement conducted to develop Metro's Draft 2020 Long Range Transportation Plan. The Plan is both realistic and bold in a time of great uncertainty; realistic in its recognition of our looming fiscal challenges and bold in that the LRTP serves as a blueprint for a clean transportation driven recovery. In particular, we want to highlight the boldest policies: • Free Transit for all • Faster, More Frequent Bus Trips • Congestion Pricing • Bus-Only Lanes • First/Last Mile Program • Freight Management Policies • TOC & Complete Streets Policies and providing more affordable housing • Accessible Wayfinding Pilot • Zero-emission bus fleet The scenario models show the transformation of transportation in the region if we implement these bold policies equitably. We also appreciate Metro defining Equity Focused Communities and look forward to developing and advancing a "Racial and Socio-Economic Equity Action Plan."</p>	<p>Comment noted.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
	350	1. Integrating the recently-passed guidelines to expand highway program eligibility to transit, active transportation, and complete streets improvements (File #2020-0412) to re-orient spending towards the most under-resourced modes (Strategies 2.1 and 3.1a.-c.).	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
	351	2. Funding accessibility (1.6b.) with a more holistic approach on all modes (bus, rail, and active transportation) that addresses the needs of those with physical, visual, auditory, and/or mental disabilities or impairments so that these riders feel welcome throughout the Metro system.	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
	351	2. Funding accessibility (1.6b.) with a more holistic approach on all modes (bus, rail, and active transportation) that addresses the needs of those with physical, visual, auditory, and/or mental disabilities or impairments so that these riders feel welcome throughout the Metro system.	Thank you for the comment. Metro is committed to providing safe and accessible services for all users.
	352	3. Prioritizing projects that were scheduled for completion last decade before new projects are started, and ensure equity and racial justice goals are used in assessing which projects start next. Specifically, the Rail to River Active Transportation (3.3b.) and Crenshaw Line projects were scheduled to open in 2019 and 2020 respectively, and are both far behind schedule.	The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTP. The LRTP includes a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP.
	353	4. Scaling the LIFE, Youth on the Move, and U-Pass Program (strategies 4.3a.-c.) to achieve free or deeply discounted fares quickly for those in need and makes it easier to reach the goal of free fares for all. (4.3e.)	Metro is conducting a Comprehensive Pricing Study. The study goals are revenue, ridership, equity, security, and customer experience-, and will be considered against deliverability within the context of the near and long-term agency recovery from the COVID-19 pandemic.
	354	5. Integrating the Bus Rapid Transit strategy (1.2h.-i.) with the Transit Oriented Communities strategy (4.2). Metro's own Climate Action and Adaptation Plan (2019) indicates that the greatest reductions in VMT and GHG will come from land use decisions. Therefore, aggressively pursuing affordable housing that respects and does not displace existing residents near proposed BRT and rail lines is critical to achieving the region's aggressive climate change goals.	Metro is committed to addressing working with local partners to address the housing shortages facing our region. Through our Joint Development Program on Metro-owned land, and through our Transit Oriented Communities program, we'll seek to create new housing around transit and will encourage transit-supportive land use policy.
	355	6. Actively engage in local development and land use decision-making processes to protect Metro's interests in fulfilling LRTP goals, including the use of lawsuits and amicii briefs to enforce VMT mitigation requirements under the California Environmental Quality Act. (4.2)	Sustainability is a guiding principle in this LRTP and a foundational element of our activities. Metro believes that environmental sustainability should carry through to each project, program, and policy. The LRTP details several specific strategies to address sustainability and our new report that will be published soon, Moving Beyond Sustainability, provides greater detail on how Metro will lead in sustainability.
	356	7. Commit to assisting, encouraging, and eventually requiring contractors to use zero and near-zero emission construction equipment in addition to renewable diesel. (3.5a.)	Sustainability is a guiding principle in this LRTP and a foundational element of our activities. Metro believes that environmental sustainability should carry through to each project, program, and policy. The LRTP details several specific strategies to address sustainability and our new report that will be published soon, Moving Beyond Sustainability, provides greater detail on how Metro will lead in sustainability.
	357	8. Identify strategies and funding to enhance station areas to make them cleaner (sanitizing stations, mask dispensing, physical distancing), safer, more accessible for people of all abilities, and more welcoming (Strategy 1.4).	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.

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Agencies and Organizations

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			<p>The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTTP.</p>
	358	<p>9. As Metro considers its policing model and resource allocation, creating a safe space for riders is critical to the success of the system. This means dis-investing from Strategy 1.7b., d., and f. (Multi-Agency Policing Plan) and investing in Strategies 1.7a. and c. (Transit Homeless Action Plan, Sexual Harassment Plan) and creating a new "alternatives to policing" strategy.</p>	<p>In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.</p> <p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p>
	359	<p>10. Coordinating with and incentivizing cities to implement their active transportation plans using eligible dollars and leveraging state funding to implement first/last mile and complete streets programs (Strategies 3.1 and 3.2).</p>	<p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p> <p>Metro coordinates with and supports our local, regional, and state partners. We cannot address all the transportation challenges facing LA County alone and we rely on the help of our partners. We look forward to continued collaboration to advance our vision for LA County.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
Sherman Oaks Home-owners Assoc.	40	The information concerning the Sepulveda Transit Corridor Project on page20 of Metro’s draft 2020 Long-Range Transportation Plan, Our Next LA, is inconsistent with MeasureM and other Metro information concerning the project. The Sherman Oaks Homeowners Association (SOHA) requests Metro to check the information and bring it into consistency with MeasureM and other information.The draft LRTP uses nomenclature about Sepulveda Transit Corridor Project phases that is inconsistent with other Metro information. To date, Metro information and MeasureM (AttachmentA)have defined Phase1 as high-occupancy toll lanes through the Pass, Phase 2 as the Valley to Westside, and Phase3 as the Westside to LAX. The draft LRTP (page20) lists Phase1 as the Valley to Westside and Phase 2 as the Westside to LAX. These are inconsistent and confusing to the public. LRTP page20 also shows the Westside to LAX “investment” as \$10,587 million. MeasureM, AttachmentA lists the Phase 3 Westwood to LAX budget as \$3,865 million. It appears that the draft LRTP incorrectly lists the total Sepulveda Transit Corridor Project budget for the Westside to LAX, rather thanthe actual budgetfor the Westwood-to-LAX phase.Thank you.Sincerely,	We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.
Oso/Neenach Town Council	325	<p>Long Range Planning for State Route 138 Dear Sirs,</p> <p>As the President of the Oso/Neenach Town Council I have submitted numerous comments and concerns to NCTC that need to be addressed in the Long Range Planning Report for State Route 138 in the western Antelope Valley. Public safety has been our number one concern with regard to high speed vehicle accidents that are oftentimes created by reckless drivers with poor driving attitudes, who try to pass on the two lane highway at high rates of speed. Even with the recent paving improvements, the roadway needs to be expanded to prevent future head on collisions. There are currently no passing lanes on State Route 138 from Interstate 5 to the 14 freeway; many anxious drivers try to pass on the two lane highway in the 55 MPH speed zones often resulting in head on collisions, several that have had fatal consequences. There have been a series of accidents at key intersections that desperately need turn lanes and traffic calming, 300 Street West,Three Points Road, La Petite, 245 Street west, 150 street west, 110 street west, 90 street west and 60 street west all would benefit with turn lanes and traffic calming. A series of wildlife under crossings need to be considered, possibly using larger than average drainage pipes to allow wildlife to have free access to either side of the highway and not to interfere with interconnectivity of the Tejon Ranch, Angeles National Forest and Transitions Habitat region that connect Highway 14 to Interstate 5. We are grateful for the new paving improvements, however vehicles are still passing at very high rates of speed, this month alone we had a fiery crash at 60 Street west involving three vehicles and two overturned vehicles at 300 street west. These all appeared to be very high speed accidents involving serious bodily injury.</p>	The scope, design, schedule, and phases of specific projects are not addressed in the LRTP. These elements will be addressed during the environmental planning phase of the project development and there will be additional opportunities to contribute feedback at that time. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects .
		<p>The Highway 138 corridor runs through a very scenic area of poppies and and open space, we would love to see the shoulders hydroseeded with native poppy mix after construction. With some intensive and creative work, planners for the Highway 138 project should consider designating this area as a scenic highway if care and forethought are given to this massive project. We would also recommend flood control to be examined in order to improve drainage along the highway where routine seasonal flooding occurs. Noise is somewhat of a concern as well so sound attenuating walls may be needed where appropriate. Of great concern is the sweeping bend near Quail Lake at the very close proximity to Mr. Carl and Kathy Stogaard's residence. There have been numerous accidents at this location with vehicles going through the chain link fencing. The rumple strip in front of Carl and Kathy's home makes for very noisy conditions since the home is less than 150 feet off the highway. Please note that improvements are needed for vehicles entering the La Petite and Three Points Roads neighborhoods, I believe on and off ramps were discussed in the primary outreach /scoping meetings. We hope that you will work with the Three Points and Oso/ Neenach Town Councils to address this area of concern. We are very appreciative of Metro accepting our recommendations for highway safety improvements along State Route 138. The Town Council and local residents are willing to work with Metro, Cal trans and LA County officials to improve highway safety in order to prevent needless collisions, improve traffic flow and beautify the area. For post collision incidents, I hope that Metro and LA County Fire Department will work cooperatively to enhance the trauma care delivery system in the rural areas with immediate dispatch of a paramedic helicopter and that units in the area are properly equipped and funded with modern rescue tools to allow for quick extrication. I have asked Denise Shippy, our Public Safety Outreach Coordinator to follow up with your office and to ask other community members for letters of support for this project. Respectfully Submitted, Jeff Zimmerman President Oso/Neenach Town Council</p>	

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
Westwood South of Santa Monica Blvd Home-owners Assoc.	337	<p>WESTWOOD SOUTH OF SANTA MONICA BLVD. HOMEOWNERS ASSOCIATION PO Box 64213 Los Angeles, CA 90064 RE: METRO LONG RANGE PLAN COMMENTS We have reviewed the Long Range Plan (LRP) posted by Metro referred to as "Our Next LA" and wish to submit some comments for your consideration. We appreciate the opportunity to do so and trust that you will receive a wide range of input for consideration in drafting the final plan.</p> <p>First: It is unfortunate that the timing of this plan coincides with the current Coronavirus pandemic. This experience will, no doubt, have an impact on how people live, how they work and how they travel. It remains to be seen as which changes now being seen will be permanent and which are of a more temporary nature. However, one thing is certain: the pandemic will change behaviors previously assumed to be "the way things are." Those things can no longer be assumed to be a part of our reality and, unfortunately, this long range plan was written with pre-pandemic assumptions. How will Metro take these changes into account in the final plan?</p>	<p>The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (SRTTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the SRTTP.</p>
		<p>The challenge of reducing congestion in the region may have been reduced somewhat as a result of impacts of the pandemic. Many employers have transitioned to having their employees work from home. While they may not continue with staff working away from the office at all times, the shift in culture has transpired and will have continued noticeable impacts on travel here and elsewhere. We often make reference to the reduced congestion in the LA metropolitan area when the Olympic games were last here. That was the result of slight shifts in work hours and in some residents leaving the area during the games. What will the impact be (percent?) of those who will continue to work from home part time? full time? How will this affect congestion? How will this affect transit ridership? We must also remember that the use of VMT to measure transportation impacts is a new measure that is untested and may not fully document the impact of changes in transportation policy. It would be advisable to continue to measure intersection congestion in addition to VMT to take advantage of the historical record of intersection analysis recording in many EIR documents. There are some who believe that while VMT may be reduced in certain locations, at the same time (and in the same area), congestion may increase (which will have an impact on increasing GHG). Regardless of how trips and travel are documented, highway investments must continue because the highways provide the routes needed not only for commuters, but for transit and goods movement and for too long, our freeways and roadways suffered and were not adequately maintained. Express lanes are an important offering to prioritize passage of transit buses and carpools on our freeways. However, they must be used to facilitate travel rather than being viewed as revenue enhancement tools. The freeways were built with taxpayer monies and it is not difficult to see public support for future roadway or transit measures undermined should projects funded with taxpayer dollars be reserved for the wealthy who can buy their way out of congestion.</p>	<p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility.</p>
		<p>It is a terrible frustration for drivers to see empty express or hot lanes when stuck in traffic and while it makes sense to maintain flow on Express Lanes at 45 mph, limiting their access at times when, for example, traffic is halted on the adjacent freeway as a result of an accident or roadway construction seems less than ideal. Variable pricing at times of congestion means that the wealthy will travel more quickly and that we will have a two tier system of travel on our public roadways. Providing financial aid to low income users will not help and will only serve to alienate working middle class members of the community -- whose tax dollars support transit operation. The "pilot traffic reduction program" mentioned in the LRP is meant to reduce congestion and raise funds for other Metro priorities (such as providing free transit for students). Many are familiar with the congestion pricing program in London, England and fear that any attempts to draw a comparison between Los Angeles, London and any other metro area that utilizes congestion pricing is an invalid and dangerous one. Los Angeles still does not have a transit network that provides coverage throughout the region for those who would like to utilize transit. There are holes in basic accessibility between, for example, the San Fernando Valley and the city over the Sepulveda Pass. The LA metropolitan region is divided by a mountain range (the Santa Monica Mountains) and there are few north-south arterials available for travel. We have numerous residents living in hillside areas -- areas that will never have the kinds of population density to warrant service by transit. (The use of Uber and Lyft as an alternative does not (necessarily) reduce traffic congestion as has been documented in a San Francisco study and which mirrors the experience of users here.</p>	<p>Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.</p>

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
		<p>The ability to avoid travel during peak travel periods is not often under the control of a driver. There are jobs that must start at a specific time. To punish workers by assessing them a tax to use the street to access their job is not equitable -- whether a lower or higher wage earner. Those employees work and pay taxes and have invested in the roadways. There are many jobs that REQUIRE a vehicle. Think about gardeners, construction workers and those who must carry equipment with them to perform their job. What is the soccer coach to do about carrying the bag of balls and goal posts needed for a practice in the park? What does the gardener do to reach a series of homes in or beyond an area of congestion pricing. Proposing to subsidize the tolls of some at the expense of other users is certain to raise an uproar and compromise the credibility of Metro. Transit is not meant to be a wealth transfer mechanism. We are aware of the SCAG study which looks at the implementation of a congestion pricing pilot program in West Los Angeles going west from the 405 to approximately 20th Street, and from the 10 Freeway north to just above Sunset Blvd. I do not believe that this is a good choice for a pilot program for the following reasons: --There are many medical providers in that area and others that cannot be reached without entry into the proposed congestion zone. St. John's Hospital and UCLA -Santa Monica Hospital Medical Center and their associated physician offices are located in or adjacent to the proposed congestion zone. As is well recognized, these types of facilities are noted as traffic generators as compared to other types of land use. Seniors, the ill, new parents, etc. must often make frequent visits to their medical care facilities and appointments are scheduled throughout the day. It would be impossible to schedule appointments outside of peak travel hours for there aren't enough off-peak hours in a day to accommodate the need. It would be wrong to invent a new barrier to health care access for those for whom congestion pricing would be a financial burden. --What would be the impact on small business in the area? Metro claims to support small business yet reducing access is sure to have an effect on patronage.</p>	
		<p>Small business is not only the retail business on a commercial corridor, but it is also the service providers who work in the pilot area or beyond it. Many drivers prefer to travel on city streets and will not use the freeway (which could serve as an alternative for getting around the zone if one seeks to go beyond it via freeway) (but then what would the impact be on freeway congestion during work access hours?). --Some jobs require those performing the work to drive during peak hours and to carry supplies such that they are unable to utilize transit. This program would penalize and punish those individuals. --The Westside has only recently received the EXPO Light Rail Line and the "Subway to the Sea" will likely never actually GO to the sea. The Westside has not been particularly well "gifted" with transit investments. Our area attracts both jobs and housing development for many reasons. The residents and workers who live in or come into the area regularly, should not be punished or penalized for their presence here. Many who purchased properties here many years ago many be viewed as wealthy and able to pay a toll but that may not be the case. Some are property rich and otherwise working hard to maintain their residence. Many who live on the Westside live in rent-controlled apartments. Many are unable to utilize transit -- whether due to lack of reasonable access, health reasons, job requirements, etc. --While the presence of the elevated 405/San Diego Freeway is a physical barrier to traffic at peak hours (particularly in evening commute times when travel from west to east is especially difficult), the freeway does not sever the relationship of those living on the east side from those on the west side. The two sides make up "West Los Angeles." We share zip codes (90025), frequent shops and services on both sides of the 405 and travel between the areas. Many have family across the 405. It would seem to be a far better strategy for creating new incentives to moving trips that cannot be taken by transit to off-peak hours (free transit fare in off-peak times?) than to penalize those who have little to no choice and to create a complicated system of financial reimbursements to those for whom travel during those times is necessary.</p>	

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		<p>The initial study on a Westside congestion zone was done PRE-COVID-19. It may be necessary to revisit the entire project and to re-evaluate traffic and travel patterns prior to identifying any pilot location. As the majority of transit investments have taken place downtown where the EXPO Line, Blue Line, Gold Line and Metro Link all converge, it was somewhat of a surprise to me that a pilot would be proposed anywhere else than downtown Los Angeles.... especially as the Downtown Connector is soon to be completed. Congestion pricing is most often seen in central city locations. What would be the reason why a congestion pricing pilot would not be done downtown if it is to be pursued at all? Having directly participated in negotiations over project entitlements for developments in Century City, we can attest to the fact that although many buildings were required to have TDM programs, too many of these plans were merely on paper -- perhaps complying via a reporting mechanism but not functioning as they should. We have had first-hand experience talking with employees in large buildings who did not understand what might be offered via their building's TDM. It struck us as quite odd (and ridiculous) that we, as a local homeowner association (HOA) board, would have to insist upon provisions in a proposed project that would expand the offerings and utility of a TDM program. It was our HOA that sought the establishment of a Transit Management Organization (TMO) for Century City when a large project was proposed in the area. We knew that the TDM's were not all functioning and we also knew that to have a critical mass of riders in vanpools, etc., there would need to be coordination between buildings in Century City. Why did that fall to our HOA? While we were successful in getting a commitment for the seed money for the TMO and to get leadership/staffing for it, we likely will not have such leverage in the future as more and more projects are approved "by right" and without the opportunity for local citizens to seek project improvements and community betterments. Therefore, it will be up to Metro and the City of Los Angeles to look more critically at whether these mechanisms such as the TDM program, TMOs, etc. are working and working to their full ability to produce positive impact. In the absence of community input, there must be a way to have a maximum number of incentives for transit use provided to employees in new developments as well as to RESIDENTS that live in buildings that were awarded <u>added densities due to their proximity to transit</u>.</p>	
		<p>As our area is located in a community that has a number of bus lines and is served by both the Westwood Blvd. and Sepulveda Blvd. EXPO Light Rail stops, we have experience with the review of Transit Oriented Community projects (TOC) and the impacts of the implementation of transit related density bonuses. Active transportation investments where dedicated bike facilities separate from City streets should be a high priority. Placing bike facilities on busy arterials is dangerous. Removing traffic lanes on busy arterials for bicycles is not often a wise choice; some streets are needed to move traffic. The intentional slowing of traffic on major arterials has unintended negative consequences with increased cut-through traffic in residential neighborhoods where pedestrians and bicycles should be able to travel safely. The development and successful maintenance of complete streets is more difficult than is being acknowledged. To have a pedestrian friendly streetscape there must be land use policy that encourages a mix of uses not only mixing residential and retail/community serving services, but also a mix of different ground floor uses. This is key to having and to building a healthy community. There must be a mix of uses to service the growing density in our neighborhoods. However, current land use and development policies do not necessarily foster this mix.</p>	<p>Metro is committed to addressing working with local partners to address the housing shortages facing our region. Through our Joint Development Program on Metro-owned land, and through our Transit Oriented Communities program, we'll seek to create new housing around transit and will encourage transit-supportive land use policy.</p>
		<p>Metro claims to have a policy that supports small businesses. However, this policy which consists of business interruption funding and a business service center (for use during construction) is superficial at best. A small business may survive transit construction with that help, but as soon as construction is over, many small businesses will find that because of newly granted density bonus opportunities for property owners, these businesses will find themselves without a new lease and/or evicted to make way for a larger density bonus / TOC project. There are no provisions for alternative locations during construction, no promises of a return to the previous location. So, you have businesses that suffered through construction only to lose their place of business not long after construction has ended. This not only kills a local business or service, but it tends to destabilize the neighborhood and the local business community. Property owners who receive density bonus entitlements should have a responsibility to the community in exchange for their enhanced land use value by virtue of the fact that they are near transit. Speaking of enhanced land use value: The rezoning of land near transit serves to increase the value of that land. Not only have we seen small businesses lose their places of business because of large hikes in rent, but as the rents increase in the area this affects properties both residential and commercial. The cost of land increases and is reflected in what is built and how much the final product costs. The rezoning and transit-adjacent strategy for development has caused accelerated inflation of land costs. In the Westside, this has harmed many. This accelerates and causes gentrification citywide. It should also be noted that the heavy prioritization of construction of housing and upzoning for housing near transit is undermining the need to provide land for both housing AND jobs.</p>	

Attachment C - LRTP Public Comment Reponse Matrix

Agencies and Organizations

Org	#	Comment Received	Response
		<p>If, in the rush to incentivize housing, we lose land needed for jobs, we will have undermined the creation of balanced communities that provide both housing and job opportunities. If we truly wish to reduce the need to travel, then we must have jobs in close proximity to housing. In our community, we lost valuable light industrially zoned land adjacent to the 405 Freeway to a large housing development (contrary to the zoning, general plan, and community plan designations for that land). Complete streets need to be part of complete communities. Creating situations where residents must travel distance to obtain a needed service or product is short-sighted. Rather than create artificial land rushes in a small area around transit, it would seem wise to instead concentrate on creating ways to get people to transit -- in a larger area. Projects built on Metro land should comply with all local zoning and land use policies and be respectful of the neighborhoods in which they are located. We are concerned that many citizens appear unaware of the opportunity to submit comments on this plan. The pandemic has made outreach more difficult --- particularly with those citizens who do not regularly rely on internet communications for their community news. You may wish to consider an extended outreach period, perhaps after making revisions that take into account potential impacts of the Coronavirus pandemic. We trust that efforts will be made to measure progress toward stated goals all along the path of implementation of the final plan so that unintended consequences can be identified, and changes made as/if needed. Thank you, Barbara Broide, President Westwood South of Santa Monica Blvd. Homeowners Association (WSSM) WSSM represents single family and condominium homeowners in the area between Santa Monica and Pico Blvds., and between Beverly Glen and Sepulveda Blvds. in West Los Angeles.</p>	

Attachment C – LRTP Public Comment Response Matrix

Public Comments

Name	#	Comment Received	Response
Andrew	1	Stop funding projects based on what subregion they are in. This is an outdated way of thinking once the system has expanded. For example, a project in the center of the city (like Crenshaw North) doesn't just help the Center City, but also adds connectivity for people on the West Side, South Bay, Inglewood, Valley and the East Side. Now that lots of outer parts of LA County have rail connections to the Central part of LA, we need to increase the number of projects in Central LA so that the rail projects in the outer parts of LA can connect to those. Metro needs to understand that projects in Central LA benefit ALL subregions and allocate funding accordingly. Central LA projects have a multiplier effect because they can connect with multiple existing projects, so they should be prioritized.	<p>The LRTP is a regional plan for mobility throughout LA County. The project prioritization process included as part of Measure M compared the benefits of highway and transit projects relative to each other. This comparison included systemwide impacts; network impacts and benefits to other areas beyond the project's scope were included in the prioritization process. However, providing benefits to each subregion within LA County is an important goal for Metro. Therefore, overall project performance and subregional equity are balanced in the LRTP's investment plan. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.</p>
	2	The following rail projects should be prioritized: Crenshaw Northern Extension, a rail line from Downtown to the West Side following Santa Monica Blvd., the Sepulveda Line and an extension of the Purple Line to the beach. These projects should be prioritized because they help out the entire LA Metro area by adding to overall connectivity. For example, the Crenshaw extension doesn't just help people in the center of the city, but it helps add connectivity for people in the South Bay,	
	3	Cut highway funding and re-direct it to rail and bus infrastructure. Need more bus-only lanes that are physically separated from regular traffic lanes as well as effective on-bus cameras to increase enforcement. Increase separated bus lanes without the need to do an environmental review, as environmental reviews just add costs and time delays to the project.	
Harold	5	I love LA mobility solutions.	Comment noted.
Nancy	7	Is there Going to Be Officers around for the station ?	<p>In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.</p>

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Public Comments

Name	#	Comment Received	Response
Ken	8	Like most of LA's transit plans, this seems to focus only on getting people in and out of Downtown. LA is not a centralized city; most of us do not need to get to downtown. North-south arterials that connect multiple transit lines are ignored, keeping people like me from utilizing public transit. With the amount of traffic on the 605, and the fact that it passes over 2 current and 1 proposed light rail line as well as Metrolink lines, why is there no talk of either a rail line or an express bus route (like the Silver line) that follows the 605 and connects these lines? This would give those of us who work in areas other than downtown a much needed transit option and provide a viable transit option to anyone working in the cities surrounding the 210. The eastern side of LA county is woefully short of transit options for anyone not working in downtown. Please consider giving all of us another option.	The LRTP is a regional plan for mobility throughout LA County. The project prioritization process included as part of Measure M compared the benefits of highway and transit projects relative to each other. This comparison included systemwide impacts; network impacts and benefits to other areas beyond the project's scope were included in the prioritization process. However, providing benefits to each subregion within LA County is an important goal for Metro. Therefore, overall project performance and subregional equity are balanced in the LRTP's investment plan. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
Helen	9	I'm 100% for expanding Metro's rail system, creating bus-only lanes, and creating more bike and pedestrian paths. Honestly, I cannot express enough enthusiastic support for these goals, especially safe pathways for nonmotorized travel. Alhambra has ZERO bike paths!	Comment noted.
William	13	Every penny not spent on security will cost you millions in lost ridership. There is no secret sauce, no mystery and you know it already.No one wants to sit in a puddle of urine, step over trash that increased once the PA announcements started about that "extra special cleaning" when it should have happened all along and to deal with fare jumpers who antagonize riders and are disruptive. Most people just want to get to work and get home. Every complaint response from your organization makes excuses ("alternative living"). Enforce fares. Provide free passes to those in financial need with legitimate need such as education, welfare-to-work or similar thru outreach and suspend if they aren't properly use (put their picture on the TAP card).It is highly dangerous. Most light rail security hang out at Union Station or 7th & Metro. 2-4-man teams should be given a geographic region (3-4 Metro stops) and be stepping on and off trains, checking (enforcing) fares and be highly visible. Put them in bright green vests. Be visible. Be unpredictable. And for Pete's sake, stop the PA announcements. We will know when you remain visible. Your pattern is to do something (fare enforcement) one or two days then disappear for months. Go watch your platform and car videos and see anything that shows otherwise. After having been a daily rider for years, no desire to go back to a broken system.	In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.
Donald	16	When you're building the WSAB line it should go west on the Slauson RO.W and terminate at the CRENSHAW LINE Lincoln Heights station	The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects .

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Public Comments

Name	#	Comment Received	Response
David	18	<p>Your overall goal of making the public transit experience as good as private is the correct one. Private compartments with plush cushioned seating, music, soundproofing, so two can people can talk to each other without bothering others, no homeless or separate cars for homeless (they smell bad) build the transit lines above the highways so the transit has fresh air, light and views, and the highways are dark tunnels. Make the transit go all the way to destinations, instead of part way (for example, at Dodger Stadium and Santa Monica Beach, the transit stops short of the destination) Double the number of tracks, so you can have express trains that go end to end with only one stop, and a local trains that stop at every station. Simplify the Transit Homeless Action Plan. It has 18 goals, which are then expanded to 64 separate bullet points. 64 separate goals. That's ridiculous. Instead of expanding the process, making it more complex, you need to do the opposite - compress it, simplify it, pick 3 or 4 goals and figure out how to actually accomplish them. Homeless people on trains ruins the experience for everyone else. Their smell gets on you and now you smell, and you lose your friends and your job. It has to be fixed, now, not made into a complex, multi-dimensional 10-year project. The plan was devised more than 3 years ago and the situation has gotten worse, so obviously you need a better plan.</p>	<p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p> <p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p>
Parker	20	<p>Hi, I don't drive and I really enjoy taking the Metro rail or bus, although there are improvements that could be made. I also have started biking as my main means of transportation. I am trying to look up information on what the plan for LA's bike infrastructure is. It is a little hard to find information, and the info that I have found can be a little underwhelming. I enjoy seeing about plans for recreation biking, like the plan for the LA river, but I would really like to see more being done for biking around the city as a means of serious transportation. I live in East Hollywood. I am extremely glad that Sunset has a bike lane for when I head downtown to work although I do not fully understand what makes a bike lane start and stop without getting all the way between to major points. Going nearly any other directions leaves a lot to be desired. Fountain is "bike friendly", but a real bike lane helps me feel much safer and less of a burden to drivers and buses. The Virgil bike lane is very short. I guess I am rambling a bit, but I would just like to see more city infrastructure for biking, not just weekend recreation. Thanks, Parker</p>	<p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Corah	27	<p>I am definitely excited about upcoming improvements to the metro system. I do urge that you take current conversations about policing extremely seriously in the metro expansion. I suggest not to create a larger police force meant to guard the metro system but instead have trained professionals not associated with law enforcement there to help those in need. Homelessness is not a crime and homeless people residing in metro areas should not be punished. Please make sure in future implementation you are taking into account how the metro system can also greatly impact systemic racism and can be part of the solution to creating a safer community for Black members of LA County. I really hope to see this issue addressed in your next draft. Thank you very much.</p>	<p>In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.</p>

Attachment C – LRTP Public Comment Response Matrix

Public Comments

Name	#	Comment Received	Response
Faramarz	28	LRTP is based on pre-COVID data and public info. The board should delay LRTP to 2021 to allow Metro to update it	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.
	29	the Draft 2020 LRTP is both realist and bold	Comment noted.
Stephen	30	I would suggest Metro, as the lead transportation agency of Los Angeles County, to make seamless inter-agency transfers part of a goal in the longrange transit plan. Currently, most inter-agency transfers costs anadditional 50 cents for regular riders, and it is for one trip only. This is completely different than transfers between different lines in the metrosystem, which is free and can be for unlimited trips within two hours andwith a TAP card. The difference between inter-agency transfer and intra-agency transfer is confusing to riders, and it causes inefficiencies in service restructuring when passengers would prefer one long metro busride instead of a combination of a Metro rail network and a local muni busconnection because of the fare policy. The one trip limit on inter-agencytransfer means a passenger travel a metro-muni-metro trip will be chargedtwo metro one way fares and a \$.50 IAT charge, and a muni-metro-metro tripwill cost the fare of one muni trip, \$.50 IAT charge, and another metrofare. This results in sometimes more than a double than a trip that onlyinvolves metro service.To improve the transfer system, I recommend that transfer fare betransferred to a Trip Value" system. The system is currently used in the	Metro is conducting a Comprehensive Pricing Study. The study goals are revenue, ridership, equity, security, and customer experience–, and will be considered against deliverability within the context of the near and long-term agency recovery from the COVID-19 pandemic.
Dan	31	Dear Metro,I support the Long Range Transportation Plan generally, with the following priorities requested.1) The extension of the Crenshaw/LAX Metrorail line north to Mid-City, West Hollywood and WeHo. This extension must go at least as west as Fairfax or it will miss all the ridership generators in the area. I also hope it will be extended to the Hollywood Bowl.2) The Sepulveda Transit Corridor Project. This should be built in a manner that it can be extended north to the Sylmar Metrolink station and south to LAX3) A comprehensive network of enforced bus lanes throughout Los Angeles.4) Cooperation with Metrolink, Amtrak, and California High Speed Rail necessarily to facilitate longer-distance rail travel.5) I would also like to see a cross county network of numbered bike routes using bikeways, bike lanes, and bike sharrows, similar to the numbered bike routes in San Francisco County.Thank you!	<p>Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.</p> <p>The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects.</p>

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Paul	32	You have to emphasize building and expanding trains - especially through sepulveda pass to the airport and through West Hollywood. This would ease traffic immensely. These are major problem areas and train lines need to be rebuilt asap, before the olympics. You are so far behind with the trains, I encourage you to do whatever you can to keep up. Having a rail system by 2047 is not fast enough. Advocate for more money wherever possible. I support public private partnerships. If you build it, they will come.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
Arthur	33	I would like metro to do a better job and getting to there stops on time in the morning, afternoon and evening time, because some people have to go to school, work, and want to take a vacation day.	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
David	34	Your overall goal of making the public transit experience as good as private transit is the correct one. Some suggestions: 1) Private compartments with plush cushioned seating, music, soundproofing, so two can talk to each other without bothering others, or one person can talk on the phone. 2) No homeless or separate cars for homeless (they smell bad) 3) Shower facilities and clean clothes for the homeless. There are plenty of clean clothes around. Organizations like Goodwill and Salvation Army send huge bundles of clothes to other countries. 4) Build the transit lines above the highways so the transit riders have more light and views, than the drivers on the highways beneath them. It's a powerful, symbolic way to say that the transit riders are the upper class and the drivers are the lower class. 5) Make the transit go all the way to destinations, instead of part way. At Dodger Stadium, Santa Monica Beach and many other destinations, the transit stops short of the destination, and riders have to walk or transfer to another mode of transit. 6) Double the number of tracks, so you can have express trains that go end to end with only one stop, and local trains that stop at every station. 7) Simplify the Transit Homeless Action Plan. It has 18 goals, which are then expanded to 64 separate bullet points. 64 separate goals. That's ridiculous. Instead of expanding the process, making it more complex, you need to do the opposite - compress it, simplify it, pick 3 or 4 goals and	<p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p> <p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p>
Kevin	37	Where's the part of your plan where you talk about providing bussing for the LAPD as they detain peaceful protesters?	In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.

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Kelly	38	Would love if next time you included the correct date for the SFV meeting, so we could let you know we're not okay with your cooperation with the LAPD arresting peaceful protestors.	In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.
goshakk	39	Does your plan also include stopping aiding the racist LAPD and apologizing for already have helped them?	In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.
Erasmus	44	En la estación de La "FIRESTON" el elevador todos los días está muy sucio, lo ocupan como: W.C. (orinan, defecan y fuman cigarrillos ?)	In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.
Claire	46	That's great that things are expanding outwards but still changes nothing for life within the city. Metro transportation is completely unusable unless you live directly next to a stop which is almost never the case. Would love to use the metro if I could (Echo Park) but alas...	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.

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Spencer	49	First, there is almost no concrete plan or mentioning of additional bike lanes, apart from the \$600m being spent on the three bike paths totaling less than 30 miles. How many miles and networks of bike lanes is metro committing to constructing by 2028 given the high # of folks who live within 10min ride of jobs and activity centers? Second, why is 26% of the 30 year funds being allocated to highways and roadways and multimodal, and how much of that 26% is going to multimodal? thirdly, why is only 5% of the 2020-2050 funds earmarked toward bus capital when bus riders make up that vast majority of metro riders and will continue to do so for the foreseeable future?	<p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.</p> <p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Olga	53	GRACIAS POR APOYARNOS EN NO PAGAR LOS PASAJES BENDICIONES ATODOS	Comment noted.
Olga	54	GRACIAS POR SUS BENEFICIOS Y POR NO DEJAR Q PAGUEMOS EN ESTOS TIEMPOS DIFÍCILES. Q ESTAMOS PASANDO DIOS LES BENDIGA Y LES GUARDE ATODOS	Comment noted.
Ward	56	Haven't read the transcript yet.I hope the intent meets the standard that will be contributing effort s for the common citizen of the state of the union.	Comment noted.
Charlie	58	Improve trasportation and security. I don't feel safe driving or walking down LA streets. Reduce mayoral influence, build up small business.	Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.

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Name	#	Comment Received	Response
Eli	59	This is great news! Thank you for putting forward this plan to improve LA. I think bike lanes should be painted different color than the road, or blocked off from cars by permanent cones/curb, or both. Bikes should be allowed on all buses & trains.	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.
Heather	60	It all sounds great! I'll believe it when I see it. I've only lived in LA for a year now and I didn't take my car with me so transitioning to public transportation was a bit of a shock. I wish there were more stations in popular areas like west hollywood and sunset blvd or melrose. If there's extensions being added, CLEANER and safer interiors and stations, then I'm happy.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
Nova	63	There should be more routes to cities outside of downtown LA and better transfer options. This will also reduce congestion; people won't have to relocate for work and can live in neighboring cities. If some parts of the metro can't run 24 hours, they should at least stop running at a later time. Honestly just ask the UK for help, their system isn't perfect but it's 100 years ahead of this one.	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
China	64	Rail down vermont	The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects .
Enrique	65	Keep up the good work	Comment noted.
Jaime	66	We need more bicycle access and freeway bike lanes.	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.

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Jonathan	67	Hi, I think the plan is good in general. I especially like the investments in complete streets and transit, and the congestion pricing proposal. I don't know why we're spending so much on highway investments, especially on capacity expansion. The law of induced demand means that those expansions will only increase the number of people driving, and will have no effect on traffic. Instead, I think we should invest in getting transit projects moving faster, like the Crenshaw Northern extension, getting new transit projects off the ground, investing more in complete streets, investing in signal preemption for our busses and light rail lines, (like the E line) metrolink electrification and reducing things like street parking and metro parking garages. These investments will actually reduce the amount people are driving because they'll reprioritize transit ahead of driving. Something we desperately need to do to reach our climate goals.	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p> <p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Kat	70	I would really like the Crenshaw line to be built soon, and have a stop at either Santa Monica and Fairfax or Santa Monica and La Brea. It would be great if it connected to Koreatown, the west side, and the airport. I commute to either Koreatown or UCLA everyday and West Hollywood has a shuttle but I work late and can't take it at night. Thanks! Opt In:	The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects .
Neelix	71	Rail down Vermont now	The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects .

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Nicholas	72	<p>Metro has consistently impressed me with its commitment to improvement sustainable mobility infrastructure and ecosystems. It is also laudable in its efforts to always involve the communities it serves. However (there's *always* a "but"!)</p> <p>Having attended a number of workshops and meetings, I am repeatedly thanked and praised by consultants and staff alike for my feedback and input (given that I do this for a living), and they express full enthusiasm for my recommendations, tempered by the realistic admission that municipal and regional initiatives are rife with complexities and bureaucracy! What fails to happen is visible and tangible manifestation of any aspect of my recommendations, namely that Metro make truly disruptive and changemaking decisions to manifest: 1- a meaningful and urgent transition from PV transport to public transpo, pedestrian and bicycle infrastructures, 2- Complete Streets and street calming measures as the norm, and not a fashionable exception, 3- full networks of sustainable mobility, instead of piecemeal grantmaking that provides little by way of viable transportation options, 4- successful marketing initiatives (not sales, promotion, or publicity, but true and meaningful strategic marketing that connects the Metro brand and its activities with its constituent riders and communities) that effectively inform, inspire and empower stakeholders across the spectrum to become more involved and invested in the success of those programs.</p>	Revisit
	73	<p>It's disheartening to see a lack of details on how biking will be encouraged as a viable transportation option. I elect to not own a car and use my bike (and sometimes Metro bikeshare) as my main transportation. While the LA River bikepath will be a nice, it is not something that will make getting around the city any easier by bike. Items I would like to see addressed: - Widening bike lanes on streets that already have paths. For example, the bike "lane" on Mission Rd/Huntington Blvd between Lincoln Heights and South Pasadena is mostly in the ditch, which is overgrown with weeds and shrubs. Meanwhile, there are 6 lanes for car travel. It is clear where the priorities truly lie. Similarly, the bike lane on Sunset Blvd is also narrow, and also the street parking is so narrow that cars partially obstruct the lane, further reducing its usefulness and the safety of riding in it. - More protected bike lanes. The example of Sunset Blvd I mentioned above could be alleviated by moving car parking between road traffic and the bike lane. - Connecting bike lanes in a way that respects the bicyclist. An obvious example is 5th/6th Streets in DTLA -- they are being repaved but bike lanes are only being added to a fraction of the newly paved streets. There are plenty of examples of incomplete bike lanes, such as Sunset Blvd bike lane not extending all the way to downtown, the Venice Blvd bike lane not extending to downtown, the 7th St. bike lane ending at Main St. instead of extending all the way into the Arts District. - Maintained bike lanes (too much trash and overgrown shrubs in the bike lane) There is clearly not much of an effort put in to keeping bike lanes safe to ride in, as evidenced by the overgrown shrubbery along Huntington Blvd., and piles of trash in places like the bike lane in the 2nd St. tunnel. - Better paved bike lanes A lot of bike lanes are half asphalt and half storm drain, which makes it difficult to ride. It leaves me</p>	<p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multi-use paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>

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Erin	74	Please don't use these funds for highway and road improvements. Invest that 100 billion dollars in more protected bikes lanes and building the metro more quickly. I am a unicorn in LA, I don't have a car and I get around entirely through public transit. I know from experience how inconsistent, slow, and inaccessible the metro and the buses are. Please stop investing in vehicles that are spewing CO2 and other pollutants into the air, and build a transit system that allows the people of the city to get around in a cleaner, faster way.	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility. While there is an urgent need to provide more sustainable transportation options, we will seek to modernize and better utilize our roadways. We will share this comment with the appropriate departments within Metro.
Andrew	75	(1) More transit, fewer highway projects(2) Don't divide resources based on region. Instead, divide it based upon need (especially population and job density)(3) Move highway funds from roads to freeway cap parks(4) Add bus only lanes all over	The LRTP is a regional plan for mobility throughout LA County. The project prioritization process included as part of Measure M compared the benefits of highway and transit projects relative to each other. This comparison included systemwide impacts; network impacts and benefits to other areas beyond the project's scope were included in the prioritization process. However, providing benefits to each subregion within LA County is an important goal for Metro. Therefore, overall project performance and subregional equity are balanced in the LRTP's investment plan. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
Michael	76	I love the commitment to better transit, complete streets, less congestion and opportunity. However, I still see way too much budget devoted to highways, roadways and other unnecessary line items to actually accomplish those lofty goals. Cost per mile of those projects, like highway or road expansion/repair, is well into the millions, while things with greater impact, like dedicated bus lanes, are only in the 6 figures per mile. We can do better. We should be dedicating all our resources to strengthening a complete network of protected bike paths, dedicated bus lanes, increased metro-line service, far more TOD and affordable units on metro-owned property, and vastly improving and building on the Complete Streets Policy and Open Streets Program. Everyone knows what will work, we just have to have the political willpower to put the budget toward it and not be apologetic. Lets get this done!	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.

Attachment C – LRTP Public Comment Response Matrix

Public Comments

Name	#	Comment Received	Response
			<p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Richard A.	79	<p>I would appreciate a response to this email. In the past, after making a comment, I did not receive a reply. (A transit system is being constructed on the extreme North end of the San Gabriel Valley. Another system is being constructed on the extreme South end. I see in the LRTP that nothing is mentioned for the center of the San Gabriel Valley, where the vast majority of SGV residents reside.) If I am mistaken in this notion, please let me know what is planned. If I am correct, please let me know why this area is being neglected! Again, a response to this message is requested. Otherwise, I would consider this a waste of time and come to the realization that the MTA is just going through the motions.</p>	<p>The LRTP is a regional plan for mobility throughout LA County. The project prioritization process included as part of Measure M compared the benefits of highway and transit projects relative to each other. This comparison included systemwide impacts; network impacts and benefits to other areas beyond the project's scope were included in the prioritization process. However, providing benefits to each subregion within LA County is an important goal for Metro. Therefore, overall project performance and subregional equity are balanced in the LRTP's investment plan. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.</p>
Kelly J.	80	<p>Any plan which fails to reduce Expresslane taxes on our freeway system is a failed plan. I see this current one includes expansion, which fails to address a key need of our interstate highway system to be toll free. Congestion pricing only benefits the rich. There is also nothing in this plan about reducing corruption within Metro. The failed electric bus program and lack of ability to extend the goldline to Claremont using Measure M regressive taxation should show that.</p>	<p>Comment noted.</p>
Tamara	81	<p>More bike lanes please. They are essential.</p>	<p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Robert	83	<p>Gold line needs to go to Ontario Airport. More accommodations for bicycles need to be included in order for the transportation plan to be forward thinking.</p>	<p>The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects.</p>

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Jim	85	Stop the stupid "road diet" construction. People can't commute to work on bikes and you're just making the roads more congested and life unbearable for us who have to commute to work by car. I'd ride Metro, but it isn't safe and takes twice as long to get where I need to go. Ask the Japanese for advice since they seem to know how to design commuter rail that actually works. I moved here from Japan (where I could rely on the rail to be on time and be safe) to here in 2003 and was sooooo disappointed to realize for the first time what a second-rate country I live in. Sure wish you could get your act together, but I'm not holding my breath.	<p>Comment noted.</p> <p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.</p>
Numan	86	I am disappointed that completion of the 710 Freeway to Pasadena is not mentioned in this plan. This is a necessary piece of infrastructure that will offer north-south drivers a bypass around Downtown LA, something that currently does not exist. It is possible to build this freeway (almost surely in tunnel form) in a way that will satisfy the concerns of surrounding communities while also providing a meaningful alternative for through commuters. The currently mentioned 710 North improvements, while helpful, are no substitute for this critical link. Please include this project in your LRTP. Thank you.	<p>We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.</p>
Fred	87	Thank you for preparing this draft. I have two questions/comments:1. According to recent estimates, boardings for Metro dropped around 17 percent in the past few years—from just under 473 million in 2013 to around 391 million in 2018. Some of this may be attributed to ride-sharing (Uber/Lyft) but how can Metro justify spending \$400 billion on future transit when public ridership is clearly not working and/or not a priority for many residents.2. Ridership decreased significantly during the COVID19 lockdown. Although it may increase over time, given the fact that there may be a strong shift to work-at-home policies, why is spending \$400 billion on transit a smart idea at this juncture? Traffic, congestion, etc. may naturally decrease in the wake of a paradigm shift about how people work in the future. Many of these 'improvement' many not be needed and the funds could be used elsewhere.Thank you.	<p>The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.</p> <p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p>

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Carl	88	I think public transportation has improved in Long Beach. More of our members are riding the bus to work or to shop. At least, that was the case before the pandemic. The concerns are for safety and also better service on the weekends (getting to church ;-) Thank you for your efforts to improve the system and lower gashouse emissions!	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
William	89	I think it is a really crappy plan. Elon Musk would build an entire network of tunnels for probably free. Imagine going to griffith Park, Mt. Wilson, and the Beach in 15 minutes on a Boring Tunnel. Las Vegas in 30 minutes.	Comment noted.
Saif	90	The funding for LA Metro is OUTRAGEOUSLY HIGH! It's way too high even if it was being used by 10 times more people. Like many other small business owners, I'm planning to leave California very soon along with my business because our local government is run by THIEVES!	Comment noted.
Christine	91	\$32 MILLION A MILE FOR A BIKE PATH????!!!! Hope it's paved in gold.	More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the LRTP performance evaluation are included in the LRTP Technical Document.
Glenn Thomas	93	Isuggest that those planning the future of the transit system make using the transit system a part of their jobs. The best way to truly knw what the commute entails is to be a commuters on a regulas basis maybe on altenating months aor weeks those most envlved in cummuter related issues (scheduling the actual acts of trsvel) use the system ad interact with its patrons on a regular basis. Thats ione idea i have many like utilizing the space for commercial and artistic growth among the school age riders>	Comment noted.
Nathaniel	96	No new lanes, only new trains please.	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.

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Dor	97	All of the plan is very nice but I'm missing two major things and this is an underground metro line between Hollywood and Santa Monica and an underground metro line between LAX and Hollywood. I know metro lines are for the residents of the city and I'm sure that they will use it for going to the airport or to the beach but this also will help all the tourists in the city and will connect them with the main attractions Los Angeles has to offer. Thinking about the 2028 Summer Olympic Games and the World Cup in 2026 this is crucial for the city that just grow every day. I know that planning and building those lines take a lot of time but this should be a major concern to LA county and maybe even to America because this is what people gonna talk about after those events and if the transportation is not good they will complain about it. Maybe some help from the federal government can make these two lines be activated by 2028. 8 years is not a long time for that but it's possible with a collaboration between all offices. I'm just a student for civil engineering and I want to be a specialist in transportation and I also lived in Hollywood for long time without a car so I know how two line like I mentioned will be a great improvement for the people who lives in the city and this is why I had to write it for you.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
Mary	98	I would like to know how to submit comments on this plan. There does not appear to be a link in the plan for online comments. Thank you, Mary Hruska	Thank you for your comments. The online submittal form that you utilized is the appropriate place for public comment
Kary	99	How about finishing the next gen bus plan, And la river bike plan, First	Thank you for your comment. The NextGen Bus Plan is in public comment period and will be implemented over the next 18 months. The LA River Path Plan is a multi-year, multi-jurisdictional effort. The LRTP shows Metro's commitment to these plans.
Alexander	100	Dear Metro Representative, Since 2004, I have been a frequent user of public transportation in Los Angeles. Even though it's been far from perfect, the system still offered relatively frequent and convenient service (albeit not always reliable), clean buses and trains, and a generally safe environment -- all of which has been an alternative to driving.... But only up until recently. Over the past five+ years, LA's mass transit has noticeably deteriorated, becoming a very unpleasant, unsafe, and an overall very time-consuming ordeal. Infrequent service, slow buses (with abnormally long run-times), and rising crime and harassment -- especially on our metro-rail trains -- all those factors have, sadly, become today's norm. That's in addition to removed Rapid service from some popular corridors -- and drastically reduced service on many local bus lines. So, overall - I'm disappointed with the degraded service -- and for the most part have switched back to driving (and/or commuting by bike). For many years, I had a chance to learn the L.A. transit network inside and out. So, my opinion will be based upon substantial experience and observation. Here are the key suggestions that should be implemented into your Long-Range Transportation Plan: (1) Safety and Security First and	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p> <p>Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.</p>
Neal	101	The link does not work on OurNextLA. Please fix and resend.	Thank you for your comment. All of the links appear to be working
Bill	102	https://laist.com/2020/06/25/la_metro_will_look_to_replace_armed_policing_on_public_transit.php?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=This will put the final nails into MTA's coffin. Your own data shows violence in the system requires a law enforcement presence. Amazing those making the decisions don't even ride the system	Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.

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Spencer	103	While growth is natural for any city, LA's population is growing exponentially faster than infrastructure can be built to support it. Many metro lines remain unsafe as well, as I have been robbed on the blue line before. Large amounts of unpredictable homeless people make commuting by transit unappealing to middle-class and above commuters. Bike infrastructure is actually pretty good, but it would be nice to see more paths separate from streets like ballona creek or the la river one. The expo path is a prime example of what not to do. Overall though, as it is now the homeless problem is the biggest boon to mass transit use, with safety being the second biggest thing. Transit in LA really just feels like something made for poor people, not that there's anything wrong with that, but it limits the potential ridership.	<p>Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.</p> <p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Christian	104	Excited for the purple line extension but why is it so expensive? Would appreciate more details on why the purple line extension will ultimately cost 10 Billion by the time it's finished in 2027...	More information on the assumptions of the plan, including the financial model, project-specific assumptions, and the LRTP performance evaluation are included in the LRTP Technical Document.
Felisa	108	One of the things to keep in mind is that of when expanding, communities and families are not misplaced and are not gentrified. As well keeping in mind that many of the riders come from low income communities and that prices for the bus should be low pricesAlso what is LACMTA doing so that when hiring said "security" does not racial profile people of color? How is LACMTA divesting from LAPD and the LASD? What is LACMTA doing to hold city officials accountable during these hard times in which black people are dying ?Is not enough to just have the buses show that BLM. How is LACTMA giving back to POC communities?	<p>Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.</p> <p>In March of 2017, Metro Transit Security entered into a five-year contract with three police agencies to further support security on bus and rail lines across Metro's transit system. That same year, Metro launched the use of a multi-agency approach to patrol LA County's 88 cities. This new policing structure includes the Los Angeles County Sheriff's Department, Los Angeles City Police Department, and Long Beach Police Department. Our partnership increases the "felt presence" of officers riding our buses and trains to deter crime and give riders and employees more assurance that they can ride the system safely. Metro remains committed to retaining the confidence of its transit customers, who depend on a safe, secure transit system for their daily transportation needs.</p>
Lorence	110	Comment bike paths. more of it.	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.

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Benjamin	112	Hi there -Resident of CD-13 and Hollywood Studio District here. I've read through the entire Long Range Transit Plans and have a few comments & questions...*First* - in a post-COVID world, we NEED to prioritize the elements of the plan that will be most effective in providing safe alternatives to a personal vehicle: - bus-only lanes - all-door boarding - protected bike lanes - complete streets*Second - specific notes: *- transition to zero emission buses systemwide - the plan notes that Metro "would like" this to happen by 2030. This has to happen ASAP. This could also help convert non-riders to some level of ridership because many people enjoy getting that extra feeling of pride doing something good for the environment.- improving Metro stops and bus shelters - this must be done with the best air filtration & carbon sequestration designs available (think: CityTree< https://greencitysolutions.de/en/ >, Smog Free Tower < , etc.). Metal shelters/benches aren't good enough (and they're ugly!) and trees require too much time, maintenance, and water!- improving traveler information -</td> <td> <p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p> <p>Sustainability is a guiding principle in this LRTP and a foundational element of our activities. Metro believes that environmental sustainability should carry through to each project, program, and policy. The LRTP details several specific strategies to address sustainability and our new report that will be published soon, Moving Beyond Sustainability, provides greater detail on how Metro will lead in sustainability.</p> </td> </tr> <tr> <td>Mary</td> <td>113</td> <td>I would like to know how to submit comments on this plan. There does not appear to be a link in the plan for online comments.Thank you,</td> <td>Duplicate comment</td> </tr> <tr> <td>Emma</td> <td>114</td> <td>To Whom It May Concern:I was unfortunately unable to attend the Live Webinar that was held yesterday evening for the LRTP. Is there a recorded video of the session that I might be able to access?</td> <td>Thank you for your comments. The webinar was recorded and is posted at: ournext.la	
Sophia	169	Decrease road funding and increase bus and train funding. I feel that our investment in road infrastructure is short sighted since it does not allow more city density, since it impacts the health of our citizens through pollution and collisions, and many of the highways we maintain are part of a racist legacy segregating out county.	<p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. It is important for Metro to support all modes while emphasizing our commitment to transit and sustainable transportation options; however, there will be additional opportunities to influence future investment decisions. Local jurisdictions receive funding in the form of "Local Return" and most subregions receive funding through "Multi-year Subregional Programs", which can be used for a variety of project types. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.</p> <p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility. While there is an urgent need to provide more sustainable transportation options, we will seek to modernize and better utilize our roadways. We will share this comment with the appropriate departments within Metro.</p>

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Adam	171	Broadly I support the draft Long Range Transit Plan, but it seems to leave out simple improvements to mass transit systems that would improve connectivity and reduce trip times throughout the region. Namely, the gap between the Green Line eastern terminus in Norwalk and the Norwalk Metrolink station is left unaddressed in the plan. No mention of a rail extension, or even a direct and frequent bus shuttle service, is made at all! Given the Crenshaw Line/airport people mover opening in the next few years, it seems shortsighted to force airport-bound travelers from southeast L.A. county and Orange County to travel all the way to Union Station just to double back. With the Expo Line already at max capacity during normal (pre-COVID) weekday rush hour, forcing travelers to rely on it - rather than the faster, fully-grade separated Green Line - is asking for more delays and headaches. Some form of dedicated, frequent, and rapid service between the Green Line terminus and Norwalk Metrolink station is crucial, and must match the Green Line timetable to be valuable. The existing municipal bus service takes	<p>We are reviewing all project details, including the available funding, the project cost, and the opening year in advance of the adoption of the LRTP. We will share this comment with the appropriate project team.</p> <p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p>
Taylor	172	Lifelong Angelano here, would really like to see Metro prioritize rail over freeways, and possibly consider building two Crenshaw North lines (an "East" and a "West" to capture both speed (East) and a wider geography with a large population (West). Specifically disappointed to see that the Sepulveda Pass project will not be finished in time for the 2028 Olympics - I would love to see Metro form a public/private partnership and/or redouble their internal efforts to bring this project to fruition before the Olympics arrive.	<p>Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.</p> <p>The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects.</p>
David	173	Hey Metro LA, First off, thanks for putting this plan together! There's a lot to love here but I want to focus on a few things I'd like to see changed. 1. Expedite BRT and protected bike lane projects since they can have the biggest impact at the lowest cost. 2. Many of the project completion dates are years, even decades away. We can do better! 3. Please please PLEASE don't move forward with any highway widening projects. We know they don't help with climate goals, and they also create more congestion and only make things worse. The next LA should discourage driving while creating affordable and efficient alternatives (BRT, rail, biking, and high density housing). Keep up the awesome work! David	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p> <p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility. While there is an urgent need to provide more sustainable transportation options, we will seek to modernize and better utilize our roadways. We will share this comment with the appropriate departments within Metro.</p>

Attachment C – LRTP Public Comment Response Matrix

Public Comments

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Kiat	175	Please consider bringing forward the projected completion date of the Crenshaw Northern Extension from 2047 to a timeline within the next decade. West Hollywood strongly supports bringing rail transit to the city and making it accessible for all, not just the privileged few with cars. Thank you.	The phasing and schedule of the capital projects included in the LRTP were based on the Measure M expenditure plan. During the development of the Measure M expenditure plan, project readiness was considered along with the performance of the project relative to similar capital projects. Metro is exploring opportunities to accelerate projects, using public-private partnerships and other mechanisms, and would like to see these projects in service sooner. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
Scott	177	My priority for light rail is to make the subway and other lines more hospitable to paying riders by removing the homeless, fare jumpers, and other threats. I love the holistic plan and all of the expanded light rail, and want people to feel good about riding, thereby increasing more ridership. But with threats, poorly lit stations, cops who don't seem to deal with the problem, it makes timid people like my parents or some friends not even consider the Metro.	Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.
Matthew	178	The long range transportation plan has many promising aspects that give me hope for the transit future of Los Angeles. I would stress a few priorities among the myriad proposals here: 1) Accelerate the construction of the Sepulveda Pass Transit Corridor all the way to LAX as much as possible--I think this project is the cornerstone to changing the commuting landscape of Los Angeles, so I would devote the most time and effort to getting this project done this decade. The LAX People Mover connecting to the Crenshaw Line is good, but a heavy rail line that connects the SFV to the airport (linking with the Orange Line, Purple Line, and Expo Line along the way) will be transformative. 2) I also think that two of the Crenshaw Line northern extension proposals should be built. The La Brea route would be the fastest, most direct connection to Hollywood, so it should be built. However, I think a new line should be built that goes through West Hollywood and then continues on down to Venice Beach, linking up with Downtown Culver along the	The phasing and schedule of the capital projects included in the LRTP were based on the Measure M expenditure plan. During the development of the Measure M expenditure plan, project readiness was considered along with the performance of the project relative to similar capital projects. Metro is exploring opportunities to accelerate projects, using public-private partnerships and other mechanisms, and would like to see these projects in service sooner. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.
			Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.
David	180	i will Never Use a BUS. I need to get from glendale to Expo Park in under 1 hour driving is 35 minutes. 50 minutes is acceptable. NOW i must go to north hollywood or pasadena to get to expo park. if i take bus only its 1:30 minutes. I NEED EXPRESS offering, and I spend 1 gallon on gas per day i am willing to pay more BUT not pay more and go slower. i need LESS transfers. MY time at home watching TV is worth more then. sitting on a bench and just waiting to get on a bus thats not often enough and isnt cheap enough.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
			Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.

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Public Comments

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Joel	181	Expansion of Public Transportation is a critical and essential component to the prosperity and green environmental goals of the city of Los Angeles, and the County as a whole. Our reliance on fossil fuels is unsustainable. The only issue with funding is that I would like to see a minimal reliance or none at all from residential property tax initiatives. Residential Property tax is already overburdened. Thanks!	Comment noted.
Adolfo	182	At the intersection of the Sepulveda Transit Corridor Project and the Purple Line Extension 3, in Westwood, there should be another line that connects the Westside to Line E in order to connect the Valley and the Westside to the LAX. If not LAX, then why isn't there a connection to the E line. This would leave it at approximately the intersection of the 10 and the 405 freeway. This would better connect our transit and provide more options for individuals commuting from the lower-income neighborhoods to the the wealthier neighborhoods. It would also reduce congestion on the westside rather than deter people who would think they have to travel to DTLA for a line transfer.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
David Hugh	183	Support the draft. The orientation towards moving people...as opposed to cars is the right evolution of transportation thinking. Prioritizing moving people, prioritizing pedestrians, building safe bike lanes - yes, yes, and yes.	Comment noted.
Jon	184	Please continue to prioritize bus-only lanes in high volume corridors, and active transportation options to/from rail stations and in more localized routes in cities across the county.	Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.
Shiraz	185	Increase development and funding of first-mile/last-mile solutions to enhance connections to regional transit. Streetcars and other connector projects should be prioritized.	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
Ken	186	It's important to me to see an electric train connect the westside to the San Fernando Valley. Also, it would be great to see an electric train connect Union Station to Bakersfield Amtrak. (I know this second request is not you, but I still wanted to include it.)	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.

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Public Comments

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Tobias	187	Hi there,I'm super excited to see our serious commitment to building a worthy transit system for LA. However, I'm a bit dismayed that there seems to be no serious plan to integrate bicycling infrastructure into our city. Due to COVID, more and more people are discovering that LA could be the perfect place to get around on bike. It's mostly sunny and flat, and you can get to lots of places within 10 minutes on a bike. But truth is, biking in LA is dangerous. I started getting around a lot on bike and it's scary! I would love if we could learn from European cities and think of biking as a serious form of transportation and build adequate infrastructure for getting around on bikes.Many thanks,Tobias	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.
David	188	I regularly ride the green and blue lines.I am all for decreasing traffic and greenhouse gases and increasing metro ridership. Please make riders feel safer... lots of homeless and things riding metro, which deters most women and many men.I am a physically fit white Male and most thugs dont mess with me.However I do feel uncomfortable at times.	In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.
Dianna	189	Excellent comprehensive long range plan. I like the TOC encouragement as well as support for low income and disabled. Incentives and funding through paid access to HOV lanes which support people taking transit is strategic! Safety on Metrolink and buses is a high priority for drivers and passengers. With pedal assist electric bike purchases on the rise the ability to access transit and transport both rider and bike are important. Thank you for sharing this, it's overdue yet exciting!	Comment noted.
Rochelle	190	At the moment, the absence of police/protection on the trains is very concerning. There's a lot of violence and attacks on citizens. I will not ride the metro because I am fearful for being assaulted because of my race. Seniors are being assaulted regularly by mentally disturbed people. You give a very long phone number to call. Who's going to remember that? How about a 1-3 digit emergency number instead?In addition, the outdoor train tracks are filthy. It appears they are never cleaned. People seem to drop all sorts of trash over the side of the platforms, including food, clothing, broken glass, food containers and much more. Stations and tracks need to be cleaned regularly. I walk my dog next to the LATCC station. I have to carry my dog because I'm afraid he will step on glass or pick up something. Thank you. I hope you can make the metro safer and cleaner so I can rejoin my fellow LA family.	<p>Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.</p> <p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p>
Benjamin	191	Why can't more of the budget be allocated to highways? This is what the majority of tax payers prefer.	The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility.

Attachment C – LRTP Public Comment Response Matrix

Public Comments

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Kevin	192	I strongly support the active transportation elements of the Plan. Please add the following:1) Metro's support for 'Open Streets' events in cities throughout L.A. County2) Metro's support for bicycle education through the 'Metro Best' or similar programs3) Metro's work with L.A. County and cities to assemble a bikeway map for L.A. county (describe and include the map, which was just updated)4) Metro's ongoing program to provide for bicycle transportation on buses, including converting to three-position bike racks.	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.
Ray	193	For pandemics or other highly contagious endemics in large cities like L.A. we may need to partition rail cars and buses into ventilation zones. One zone for external ventilation only, no air shared from the rest of the car. Another zone for those with known contagious ailments, those that are seeking help in clinics or hospitals and have no other means of transportation. We may also need to limit capacity for safety. No standing. Only one per seat.	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.
Michael	194	(1) Is Lincoln Heights an EFC? Equity Focus Communities As part of the LRTP, Metro has defined "Equity Focus Communities" (EFCs). These communities represent geographic areas that have the following socioeconomic characteristics; more than 40% of households are low-income and either 80% of households are non-white or 10% have no access to a vehicle. Collectively, these areas represent about 30% of the county's population. EFCs are communities that have experienced historic disinvestments, reduced access to opportunity and housing, and policy decisions that have resulted in environmental justice disparities. As such, these communities have higher degree of	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions. The final alignment and station location for rail projects included in the LRTP are subject to change during the environmental planning phase of the project development. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects .
Kendall	195	I'm concerned that the highway transformation plans are not going to be good for everyone. Highways have historically been used to physically separate communities in order to impoverish communities of color. There is also much concern about the health effects of living next to a highway, where noxious particulate matter is heaviest concentrated. Yet land developers have used land next to highways to provide low-income housing to BIPOC, especially in LA. Finally, highway expansion only helps further climate change, as people use the space they're given. I would love details on how this plan will not only not HARM BIPOC, but actively HELP them instead. Also, the highway plan needs to be more comprehensive than solely lane expansion on certain segments. If Metro has access highway Right of Way, then the Long-Range Transportation Plan needs to treat the highways as a complete system, rather than in segments. And if the highway plan as is cannot visibly help communities of color, and is actively harming the environment, there needs to be a complete shift in that part of the plan. Thank you for	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions. The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility. While there is an urgent need to provide more sustainable transportation options, we will seek to modernize and better utilize our roadways. We will share this comment with the appropriate departments within Metro.

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Claudia	196	<p>1 • Bus stops shouldn't be located in a corner, this backs up traffic from being able to turn right thus increasing congestion. It would be nice to have room to pass the buses. 2</p> <p>• I notice that riders and Metro / Bus drivers don't have a seat at the table. Which is puzzling because they are the ones with boots on the ground. 3 • Crossing of bike lanes and busses and ride share pick up is dangerous. There has to be a better way. Thank you!</p>	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p>
Paul	197	<p>I think one of the problems why a lot of people choose to drive is because the metro link is dirty. There's a lot of homeless people sleeping on the train and it stinks. Also metro stations need more bike lockers.</p>	<p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p>
Anthony	198	<p>Hello. There were a few concerns which I don't think were touched upon in the plan and which are of a concern to me as a mid-age professional (36 yrs). I've been speaking with colleagues about public transportation and I believe that ridership levels will increase if these concerns are addressed: 1. Sanitation. We've all heard the stories. I've felt it, I've smelled it. I don't think I need to go into detail about this. Perhaps more cleaning crews that work on a part-time basis so that the county can avoid footing the additional cost of hiring full-timers? I prefer full-timers because I believe everyone deserves a decent-wage job, but I realize that budgets and politics get in the way. Homelessness decreases sanitation on the system. My understanding is that a federal court has not obligated the county/city to house all homeless individuals? Perhaps this will help change the landscape. 2. Bathrooms. I understand that American cities are not very good about restrooms in public spaces, but I think that it is really important and goes hand-in-hand with sanitation. The biggest reason is maintenance cost, correct? I've seen a sort of buffed-steel used in elevators. This material is intended to prevent vandalism. I would like Metro to consider the viability of constructing public restrooms entirely with this</p>	<p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p> <p>Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.</p>
Ryan	200	<p>I would like to voice my complete support for the proposed VMT tax, as well as voice my complete objection to any and all freeway widening proposals. Induced demand would not only worsen traffic and reduce transit efficiency along those routes, but also damage the physical structure of surrounding neighborhoods, increase potential for traffic fatalities and worsen air quality. We must pursue a diversity of tactics to actively end the primacy of the automobile in our region, and that includes denying any and all road widening or lane additions.</p>	<p>The LRTP's investment plan is built upon previous efforts and the Metro Board's previous directives. The Measure M expenditure plan was developed with significant public input and was passed by over 70% of LA County voters, and much of the funding allocated for projects and programs included in the LRTP was written into the Measure M statute. Metro must balance environmental sustainability and equity imperatives with the realism that our roadway transportation system is still crucially important for regional mobility. While there is an urgent need to provide more sustainable transportation options, we will seek to modernize and better utilize our roadways. We will share this comment with the appropriate departments within Metro.</p>

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			Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.
Stephen	201	I am totally against congestion pricing and the proposed study west of the 405. I live east of the 405, I own property west of the 405 as well as my bank, mail, post office are located west of the 405 in Brentwood. My child and grandchildren live west of 20th Street in Santa Monica. This is an arbitrary exercise and unfair to myself, as I approach 80 years old. What exceptions will there be?	Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.
Shannon	203	I support greater investment in bike/pedestrian and complete streets infrastructure, in addition to exclusive bike lanes. I think we need to be taking more space in our city back from single occupancy vehicles to create a more equitable city with a greater quality of living. I think we should work towards a bicycle network of fully protected lanes that connects the county, in the same way we are building out a fully connected rail network. A rail and bike network would complement one another, and truly give Angelenos a choice for a car-free lifestyle.	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.
Anant	205	The main problem with this is how much money is still being invested in highways. Divert money away from major highway investments into accelerating the timelines on transit projects in order to give Los Angelenos true options for mobility in the city. Seeing as SB288 could potentially exempt "sustainable" transportation projects from challenges under CEQA, would the passing of this legislation speed up the timeline and cut down on costs for transit construction projects? I noticed that the 28 by 28 seems to be thrown out the window, and I'm just curious about what other strategies LA could use to create a better transit network faster. For long term light-rail projects, it also feels like the timelines are too long and the investment needed is too high. Why can't the proposals address this through the tactical, rapid deployment of protected BRT lines that emulate light rail, whereupon trends in ridership can influence on a more ad-hoc basis which lines should be converted to permanent light rail. BRT lane creation would also begin the process of demarcating space for future light rail, promote more ridership on the metro network, and spread out upfront investments into light rail (e.g. some grade separations and stations can be developed independently overtime with the intention of laying down tracks at a later date; thereby, spreading out the costs of light rail implementation over stages). Does LA metro also have any plans to pursue private partnerships and financing	<p>Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.</p> <p>The phasing and schedule of the capital projects included in the LRTP were based on the Measure M expenditure plan. During the development of the Measure M expenditure plan, project readiness was considered along with the performance of the project relative to similar capital projects. Metro is exploring opportunities to accelerate projects, using public-private partnerships and other mechanisms, and would like to see these projects in service sooner. The Short Range Transportation Plan, to be completed following the LRTP, will re-evaluate the financial realities facing LA County over the next decade and will provide an opportunity for Metro and our partners to examine the prioritization of funding.</p>
Peter	206	Thank you for putting this together. Here are my comments: 1. The front page (and pg. 42) advertises the benefits of the plan re: lowering vehicle travel times, but when SB 743 finally goes into effect this year, future state transit projects will use VMT as a metric rather than travel time. I think the report should highlight up front that transit investments mean less car miles traveled, and advertise that this is good re: climate	Sustainability is a guiding principle in this LRTP and a foundational element of our activities. Metro believes that environmental sustainability should carry through to each project, program, and policy. The LRTP details several specific strategies to address sustainability and our new report that will be published soon, Moving Beyond Sustainability, provides greater detail on how Metro will lead in sustainability.

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Public Comments

Name	#	Comment Received	Response
		change. 2. Some of the "Open Year" prognostications on page 20 seem very very far away (2057 for Westside to LAX corridor?). :(3. The MicroTransit Service Delivery model (Strategy 1.5) will always be scope-limited if your imagination doesn't reach past Uber/Lyft rideshare paradigms. I worked on micro-transit system designs for a self-driving car startup, and I found that impactful projects require a LOT of data, many of it gleaned from dis-aggregated cell phone GPS tracking in ways that mask population movements in poorer communities. It will also require a heavy investment in "smart" street sensing equipment, and won't really lower VMT if you are using single passenger sedans. Point-to-point mobility can also include scooters and bikes! 4. Strat 1.7b is already anachronistic, given the desire of the public and elected officials to reduce LAPD presence on METRO (and the high cost of the overtime involved). The city's Ad Hoc Committee on Black People Experiencing Homelessness highlighted the inequitable effects of policing on homeless POC in Dec 2018, and recommended that overarching funding priorities be adjusted to reduce armed officer interactions with homeless persons in favor of social service outreach.5. My constituents who are experiencing homelessness (I am on a Neighborhood Council) complain to me that they are harassed for loitering in light rail stations and trains, and acknowledge that they lose their TAP	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p> <p>In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.</p>
Lee	208	I support this project! I appreciate the thought put into women passengers (more of them take the bus than trains). Please also continue to reach out to underserved communities in our cities. Often those folks are not going to have the time and means to look at your plans and comment. We need a more equitable plan. Thanks.	Addressing historical inequities is a guiding principle for the LRTP and a core tenet for Metro's current planning activities. Metro's Equity Platform will help guide future planning studies and investment decisions.
Kevin	209	The way the MTA is going is great, yet they fail to remember or realize a great majority of their employees and riders live and commute from as far as Beaumont, CA. I personally commute from Moreno Valley and the Metro Link is reliable but not who I work for or trust. It would be very nice for the Metro light rail or heavy rail to move East. If it can go to the beach, why can't it go to the IE. It would link the Ontario Airport as well as Ontario Mill Mall and other Inland Empire sights and businesses in the Metro coverage and not to mention jobs, jobs, jobs!! do know CV-19 has put a big stop to construction but nice to know it is heard and being acted on. So please IF the time I put into responding to this request for input. Please let me know this has been tabled with the movers and shakers of the MTA. smithke@metro.net	Metro's transit capital expansion program includes the most aggressive expansion of light rail and heavy rail in the country. We are committed to bringing high quality transit to as many residents as possible; however, we realize that we cannot have rail stations and rail lines everywhere. Metro is working to provide first and last mile connectivity to our rail stations and, working with our partners, to offer high quality bus service where we do not have rail. Furthermore, the final station locations and alignments of the rail lines included in the LRTP are subject to change during the environmental planning phases of the project development.
Christine	210	Dear Whom It May Concern,I am absolutely against imposing any type of congestion \$4 fee in order to get on a freeway from Santa Monica/West La. Why should I be penalized on days when I am unable to work remotely from home and am required to appear in Court, usually downtown. I do not believe that this will be an efficient way to discourage people from utilizing freeways - rather it is a way to punish yet again the middle class and the poort. Please refrain from enacting a congestion fee. Sincerely,Christine Twining Outwater	Metro is exploring road pricing as an option for reducing congestion, while at the same time providing alternatives to driving. Our Traffic Reduction Study is currently studying several pricing mechanisms and complimentary mobility improvement in select candidate corridors; however, the specifics of the recommendations stemming from the study are unknown at the moment.
Jim	211	St Bernadette Church - Baldwin Hills Looks Great!You have our full support. Deacon Jim	Comment noted.
Stoney	212	I support any and all reductions in CO2, needless traffic and inefficient single car culture. This is a great plan and we Angelinos support it whole heartedly.	Comment noted.

Attachment C – LRTP Public Comment Response Matrix

Public Comments

Name	#	Comment Received	Response
Roy	213	I live in Montecito Heights in Northeast LA. We have a bike lane in the Arroyo Seco channel that does not connect to anything. If the bike path could connect to the LA River bike path at the Confluence, thousands of people would have a safe bike alternative to get in and out of DTLA. This feels like a small thing that would make a big difference. Thank you.	Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.
Chris	323	Here are my thoughts on the Long Range Transit Plan. I'm just an interested and concerned citizen. *No Commute Mode Share Goals* I don't see commute mode share as a progress metric in this plan. We've got to get people out of their cars, for every societal goal we have. LA's commute mode share as of 2017 (the most recent data provided by https://data.lacounty.gov/Transportation/Commute-Mode-Share-in-LA-County-2005-2017-/y7mn-ys78) was 79% drove alone and 10% carpool. That is 89% commuting in private automobile. Vancouver's private automobile mode share is 47% (https://dailyhive.com/vancouver/vancouver-active-transportation-mode-share-report-2019). Driving this number down should be a primary objective and progress metric. *People are still dying on LA's streets and no one is willing to inconvenience drivers to save lives* Cyclist and Pedestrian deaths are up, not down. (https://www.latimes.com/local/lanow/la-me-ln-traffic-deaths-bike-pedestrian-los-angeles-vision-zero-20190425-story.html) LA needs to prioritize people's safety over drivers' convenience. The car culture here is killing people. I don't see much of a plan for this. *Automate speed and traffic enforcement* The technology exists to automate much of speed and traffic enforcement. We should use it everywhere. This will reduce unnecessary encounters with police and help the laws be enforced uniformly without class or racial bias. It will also make streets safer and help change the culture here, because now people drive with a sense of impunity. https://dpw.lacounty.gov/Traffic/AutoRedLight.cfm *Get rid of 85th percentile speed limits* It's an insane policy.	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors. Additional efforts to improve customer experience, including safety and security, are underway as well.</p> <p>Metro recognizes that active transportation is a vital component of the multi-modal transportation system. Bicycling and walking are important first and last mile modes to support the expansion of transit usage and offer their own public health and environmental benefits. The LRTP details several regionally significant major multiuse paths as well as the many policies and programs that Metro has established to support active transportation, complete streets, and first and last mile connectivity. Most investment decisions for active transportation happens within local jurisdictions, and therefore, Metro will work with our local partners to improve bicycle and pedestrian travel within LA County. Metro encourages stakeholders to provide your feedback directly to local and regional governments as well as to Metro on future planning efforts.</p>
Elizabeth	324	At this point, the impact of COVID-19 on ridership, traffic patterns, and how people live, work and attend school is unknown. Therefore, Metro should declare a moratorium on any part of the plan that relies on or assumes an increase in transit ridership, e.g. Transit Oriented Communities zoning. Efforts to increase the speed and reliability of the Metro system should continue. Best regards, Elizabeth Pollock eliz.pollock@gmail.com 11923 Bray Street Culver City, CA 90230 Mobile: (310) 699-5165	The LRTP was developed prior to the onset of the COVID-19 pandemic. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP, including the impacts on Metro's financials, operations, and other efforts. The LRTP is the 30-year plan for Los Angeles County. The near-term strategies and actions are to be determined and will be documented in the Short-Range Transportation Plan (S RTP). The LRTP is a living document that will be amended as necessary as the county's priorities change and as financial, technological, or demographic changes warrant updates to the plan. The LRTP will include a new discussion of the COVID-19 pandemic and the variety of impacts it has on the contents of the LRTP. The new financial realities facing LA Metro will be explored extensively over the next several years and will be documented in the S RTP.

Attachment C – LRTP Public Comment Response Matrix

Public Comments

Name	#	Comment Received	Response
Flavia	326	<p>To Those Interested in the Planning for State Route 138,</p> <p>I am writing today as a resident of the rural community of Neenach. I drive State Route 138 regularly as it is the only route providing access to our home. This route is heavily travelled by large trucks, having been designated an alternate truck route a few years ago. This narrow, two-lane rural highway was not originally built to carry such a volume of heavy loads and the pavement has been broken up for sometime. Thankfully, the road resurfacing is in progress.</p> <p>However the resurfacing, while much appreciated by all who drive this road, does not address the serious safety concerns on this route.</p> <ol style="list-style-type: none"> 1. There are only two intersections with left turn lanes in the section between the I - 5 Freeway and the 14. 2. There are no passing lanes and frustrated drivers stuck in long lines behind trucks recklessly pass causing deadly head on collisions with oncoming traffic and many near misses where the oncoming vehicle has to veer off the road into the ditch. The recent addition of guard rails block an escape route in this situation. 3. There is poor drainage resulting in standing water on the road causing one to hydroplane out of control if you don't see it soon enough to slow. This is particularly dangerous if a big truck is oncoming. I personally have experienced many times trying to make a left turn on to La Petite with 	<p>The scope, design, schedule, and phases of specific projects are not addressed in the LRTP. These elements will be addressed during the environmental planning phase of the project development and there will be additional opportunities to contribute feedback at that time. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects.</p>
Denise	328	<p>Good morning....</p> <p>Highway 138 through the westernmost part of the Antelope Valley is not like other rural highways. This highway has its own set of characteristics that make it unique. These qualities all require a little bit of extra attention.</p> <p>We have an uncountable amount of semi trucks hauling goods. We have daily commuters between AV , SCV, and Bakersfield. We have beautiful wildflowers bringing the day trippers. We have hikers using the Pacific Crest Trail. Not to forget about our local town residential traffic. All of these things have to be considered in the creation of a long term plan.</p> <p>I will do my best to assist in any way I can. Accidents happen! They don't always need to! Just those little things Mr Zimmerman mentioned can prevent needless accidents and help keep our little town of Neenach safer.</p> <p>Thank you for your time, Denise Shippy Public Safety Coordinator/Oso-Neenach. Town Council</p> <p>If someone can get back to me in regards to the new guardrails being installed, that would be fantastic!</p>	<p>The scope, design, schedule, and phases of specific projects are not addressed in the LRTP. These elements will be addressed during the environmental planning phase of the project development and there will be additional opportunities to contribute feedback at that time. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects.</p>
Wess	332	<p>I second Mrs. Taylor's concern about safety on State Route 138. Making a left turn with a high-speed semi-trailers bearing down on you from both directions is a terrifying experience. A few left turn-lanes could make a world of difference!</p>	<p>The scope, design, schedule, and phases of specific projects are not addressed in the LRTP. These elements will be addressed during the environmental planning phase of the project development and there will be additional opportunities to contribute feedback at that time. We will pass along this comment to the project team and we encourage you to provide additional project-specific feedback at: www.metro.net/projects.</p>

Attachment C – LRTP Public Comment Response Matrix

Public Comments

Name	#	Comment Received	Response
Jaime	334	How are you guys expect people to take the metro when is very dangerous.. I have complained several times and nothing has occurred. Last week when I complained about a person not wearing a mask (which is the law) i was told by a metro police that "is not my job" and got upset. You use TV and all kinds of media to push this plan but the true is that for years the metro is a wild place with drugs deals violence and now COVID-19 runs wild.	Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.
Barbara	337	The challenge of providing better transit to our metropolitan area must be met in order to maintain a livable city. However, the transit must be a utility that serves the needs of the region's residents and is accessible, reliable and well-maintained. The LRP addresses these issues with the proposed planned projects and additional action plans and policies. However, before looking to the future plan, it is important to fully understand some of the current unmet needs of riders on the system. While a Homeless Action Plan is being implemented and will continue to be implemented, it is currently not working and the presence of homeless/unhoused individuals is undermining riders' trust in the safety and cleanliness of the system. "How women travel" is noted in the LRP summary, but at this moment, it may be more relevant to ask IF women travel on Metro. We are aware of many riders who were excited to ride the EXPO Line and who no longer use it because they do not wish to return after work or after dark alone.	In spring 2016, at the direction of our CEO, Metro created a Homeless Task Force to address homelessness in and around the transit system and align action with County and City of Los Angeles priorities. In February 2017, the Homeless Action Plan was finalized. The Action Plan's goals are threefold: 1. to enhance the customer experience; 2. maintain a safe and secure system; and, 3. connect homeless persons in the transit system to services and resources under Measures H and HHH. Metro continues to expand efforts in this area.
			Safety of our riders is our number one priority. Metro is committed to maintaining a safe and secure transit system, while balancing our the community concerns surrounding policing, homelessness, and customer experience. Thank you for your feedback and we will share this comment with the appropriate department within Metro.
Jorge	367	<p>Hello. I'd like to share some ideas.</p> <p>1. Bus stops at the middle of the block approximately, away from drive ways. This change will avoid the risk of an accident when drivers cut in front of a bus to turn right just when the bus is leaving the bus stop and the bus operator is forced to make a sudden stop and probably causing passengers to fall down.</p> <p>2. The bus route number sign; regular buses to show it on the left side of sign, rapid buses on the right side. Examples, 204 {---, ---}704, this new way of signing may aid passengers not to miss their bus at times when the day is dark, cloudy or rainy and visibility is low.</p> <p>Hope you find these ideas useful. I stil have a few more, let me know if you'd like me to share them with you.</p> <p>Have a great day.</p>	<p>Metro is committed to building a World Class Bus system. Improvements planned for the system include those to enhance the customer experience, improve the system operations, and to provide reliable access to riders where and when they need to travel. We recognize that the transit system has lost ridership over the last several years and are committed to improving our bus service. Through our NextGen Bus Plan, Metro is redesigning our entire bus network and these changes will be implemented over the next 18 months. Working with local partners, Metro is exploring projects to improve bus speed and reliability in congested corridors.</p> <p>Additional efforts to improve customer experience, including safety and security, are underway as well.</p>

ATTACHMENT D

REVISED

SUMMARY OF DRAFT LRTP REVISIONS

NOTE: The Draft 2020 LRTP was distributed for review and comment on May 29, 2020. Comments were requested by July 13, 2020. The following reflects all revisions proposed for the Final LRTP.

Page(s)	Revisions to Plan
1-7	Add cover graphic and introductory text
8	Add letter from CEO
10	Add discussion on the potential impact of COVID-19 on the LRTP
15	Clarify that LA County is the most populous county in the US, not the largest
15	Clarify that Metro's service area fits the combined land areas of the ten cities identified
16	Clarify that LA County is home to many of the nation's most congested highway corridors
17	Clarify that historically, transportation policies and investments in LA County have prioritized single-occupant vehicle (SOV) travel over more affordable, high-quality mobility alternatives
17	Clarify that economic prosperity and health are also affected by racial and socioeconomic lines
18, 19	Revise maps to more clearly distinguish between existing transit lines and projects under construction
18	Clarify that Metro plans, builds, manages, and maintains LA County's transportation system
19	Clarify that Metro's Microtransit program is known as Metro Micro
19	Clarify that adding more general-purpose freeway lanes is often an expensive and disruptive option that will not solve congestion as the county continues to grow
20-25	Revise section header to LRTP Elements, Benefits & Priorities to be consistent with the text
20	Move and clarify discussion of community engagement efforts
20	Clarify that the financial commitments of the 2020 LRTP include Measures M and R
20	<u>Clarify the bottoms-up approach of Measure M</u>
21	Clarify that the Measure M Funded Transit & Highway Improvements include Measure R commitments
23	<u>Clarify that scenario tests will require Board action prior to implementation</u>
24	Add conceptual illustration of Plan elements
25	Revise role of LRTP relative to other plans
28	Add discussion on security and homelessness
29	Add C Line (Green) Extension to Torrance to the list of near-term projects
29	Remove Vermont Transit Corridor from near-term BRT list
30	Add modes to project names
30	Add Antelope Valley Line Capacity and Infrastructure Improvements Program to table
30	Clarify C Line (Green) Eastern Extension project name
30	Remove reference to mode for Vermont Transit Corridor
30	Clarify footnotes to table
31	<u>Add label to Gold Line Foothill Extension to Claremont</u>
31	Clarify that Purple Line Section 3 is under construction.
31	Clarify that 2050 is the horizon year of the LRTP.
31	Clarify the regional commuter rail improvements are the Antelope Valley Line Capacity and Infrastructure Improvement Program
31	Clarify alignment for Crenshaw North has not been determined
32	Identify four pillar rail projects in action 1.1c
32	Clarify Metro's role in actions 1.2b and 1.2j
32	Clarify timeframe of action 1.1f
32	Clarify NextGen's goal of reversing the declining ridership trend in Strategy 1.2
34	Clarify Systemwide Station Design implementation in action 1.4a

34	Clarify discussion of real-time arrival information in action 1.4b
34	Clarify discussion of station safety and security in action 1.4f
34	Clarify Metro Micro implementation in action 1.5b
34	Clarify timeframe of action 1.5b
34	Clarify Metro's role in actions 1.5b
34	Clarify discussion of new forms of mobility in Strategy 1.5
35	Clarify discussion of customer experience in Strategy 1.6
35	Add discussion on station accessibility to action 1.6b
36	Clarify Multi-Agency Policing Plan in action 1.7b
36	Clarify Metro's role in actions 1.7f and 1.8c
36	Add discussion on Transit Homeless Action Plan
37	Clarify timeframe of action 1.8c
42	Clarify discussion on Metro ExpressLanes
42	Clarify role of Caltrans
42	Add reference to integrated corridor management
42	Clarify amount of funding for major highway investments
44	Clarify name of Sepulveda Pass Transit Corridor (Ph 1 - ExpressLanes) project on table
44	Add Rosecrans/Marquardt Grade Separation to table
44	Add SR-138 Capacity Enhancements to table
44	Add I-10 East Expresslanes to table
44	Add I-605 Corridor "Hot Spot" Interchange Improvements to table
44	Clarify opening years of projects in table
45	Add Rosecrans/Marquardt Grade Separation to map
45	Add SR-138 Capacity Enhancements to map
45	Clarify name of Sepulveda Pass Transit Corridor (Ph 1 - ExpressLanes) project on map
45	Clarify I-5 North Project to Parker Rd on map
45	Add I-605 Corridor "Hot Spot" Interchange Improvements to map
46	Add Metro's role in action 2.1b
46	Add signal synchronization to action 2.1c
46	Add Metro's role in action 2.3e
46	Add goods movement to Strategy 2.1
47	Update discussion of ExpressLanes Expansion
48	Revise Metro's role in action 2.6b
48	Add Metro's role in action 2.6c
48	Add Metro's role in action 2.6d
48	Add equity and environmental sustainability to Strategy 2.5
48	Add telecommuting to Action 2.6e
49	Add references to intermodal facilities to Goods Movement Strategic Plan
50	Add partners to Action 2.7a
50	Add safety and broader description of Metro's role to Strategy 2.7
52	Clarify delay and VMT metrics
53	Add photo
56	Add discussion on role of local partners
56	Corrected spelling of Fairview Heights
57	Clarify that final alignments will be identified during environmental processes
58	Clarify Complete Streets Policy in Strategy 3.1
58	Clarify FLM program in action 3.2a
58	Clarify timeframe of action 3.2b
58	Add reference to intermodal facilities in action 3.2b
58	Clarify timeframe of action 3.3b
58	Clarify active transportation infrastructure in Strategy 3.3

59	Revise length of LA River Bike Path
60	Add action 3.6d promoting a decrease in GHG emissions or reduction of single-occupant vehicle (SOV) trips
61	Add I-710 Clean Trucks Program to Zero-Emission Trucks Collaborative
62	Capitalize "Complete Streets"
67	Add freeway labels to map
67	Clarify map title
68, 70	Relocate Strategies 4.1, 4.2, and 4.3 to align with TOC text
68	Add action 4.1g on Transit to Parks Strategic Plan
69	Remove reference to draft in definition of equity
70	Add discussion on Metro's Joint Development program
70	Add action 4.3f on Comprehensive Pricing Study
72	Revise Metro's role in action 4.6b
72	Revise Metro's role in action 4.6c
73	Clarify discussion of E3 Training Programs
76	Revise Figure 26 to be FY2021-FY2050
76	Change reference to Figure 26
77	Clarify Other Local Sources of funding
77, 79, 81	Add reference to YOE for pie charts
80	Clarify FSP services
82	Delete redundant sentence
82	Add discussion on Trip Reduction Strategies
84	Add to discussion on SRTP
<u>84</u>	<u>Clarify that the region's new travel patterns will be analyzed in SRTP</u>
Back cover	Update title of Board Member Fasana
<u>Back cover</u>	<u>Update the First and Second Vice Chairs</u>
Various	Revise maps to include SR-138 connection and additional roadway symbology in North County



2020 Long Range Transportation Plan for Adoption

Planning & Programming Committee 9.16.20

Executive Management Committee 9.17.20

2020 LRTP Adoption

LRTP meets conformity/funding requirements:

- > Financially constrained, technical analysis for SCAG RTP/SCS
- > Major project inclusion required for state & federal funding eligibility

Time to adopt:

- > LRTP remained in alignment with SCAG's schedule
 - SCAG Adopted 2020 RTP/SCS May 7th (transportation projects)
 - SCAG Adopted 2020 RTP/SCS Sept 3rd (land use and housing)

As-needed amendments:

- > SCAG RTP/SCS & LRTP: both living documents
 - Update/amend to address project & plan changes

L RTP is guided by Vision 2028.

We're guided by our *Strategic Plan* goals.

 *Vision 2028 Strategic Plan*

We're creating

1 *Faster Travel Options* 2 *Better Trips* 3 *Thriving Communities*

Better Transit

Providing more transit options with improved quality and service

Transit Projects

Bus Improvements

New Mobility Options

Less Congestion

Managing the transportation system to reduce the amount of time people spend in traffic

Roadway Improvements

Congestion Management

Goods Movement

Complete Streets

Making streets and sidewalks safe and convenient for everyone, to support healthy neighborhoods

Bike and Pedestrian Projects

Local Street Improvements

Station and Stop Access Enhancements

Access to Opportunity

Investing in communities to expand access to jobs, housing and mobility options

Workforce Initiatives

Support for Local Businesses

Transit Oriented Communities

 *Long Range Transportation Plan*

We're committed to

4 *Leadership* 5 *Accountability*

 Collaboration  Continuous Improvement

 Customer Focus  Innovation  Inspired and Inclusive Workforce  Safety

 *Customer Experience Plan*  *COVID-19 Recovery Plan*

We're intentionally focused on *eliminating racial and socioeconomic disparities and advancing sustainable practices in everything we do.*

 Equity  Sustainability

 *Equity Plan*  *Moving Beyond Sustainability Plan*

Public Engagement

- > Telephone town hall called 100,000
- > Posters on all bus and rail lines
- > More than 23,000 postcards sent*
- > More than 15 million social media and online advertising impressions*
- > Almost 2.5 million direct emails*
- > More than 130,000 LRTP website visits

*Targeted residents in Equity Focus Communities



Public Comment Summary

- > Strong support for:
 - Expanded and improved transit
 - Active transportation and complete streets
- > Some support for roadway enhancements
- > Many comments on:
 - Safety/security recommendations and homelessness concerns
 - Project-specific comments and requests
(e.g., projects completed sooner, alignment comments, etc.)
- > Some comments on:
 - Equity considerations
 - Implications and unknowns surrounding COVID-19
 - Modal prioritization and regional prioritization of funding
 - Fare policy and congestion pricing



2020 LRTP Technical Document and Next Steps

Technical document provides the following detail and data:

- > Public engagement metrics
- > Project and program descriptions
- > Performance Measures
- > Subregional demographics and travel patterns
- > Travel demand model analysis and assumptions
- > Financial forecast fund types and assumptions



Next steps:

- > Continued project/program development per 2020 LRTP
- > Short-Range Transportation Plan Development
 - Strategic project list
 - Financial forecast update
 - Prioritized actions
 - Implementation roadmap





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Local Street Improvements

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- Equity considerations
- Implications and unknowns surrounding COVID-19
- Modal prioritization and regional prioritization of funding
- Fare policy and congestion pricing



Recent Draft Changes to 2020 Draft LRTP

The following language was added, as noted below—

> p. 20 Added the following language to the first paragraph: “These commitments were previously established in collaboration with our local partners. Metro intentionally employed an extensive bottoms-up approach with subregional partners, to ensure that Measure M was shaped by their local project priorities to achieve subregional balance.”

> p. 23 Added the following language in the left column under bullet #3: “These scenario tests represent policy opportunities, but do not reflect specific policy directives. Board action will be required for any policy action or implementation.”

> p. 84 Replaced 2nd sentence (after “...2020 LRTP.”) in 3rd paragraph with: “The SRTP will acknowledge and analyze the region's new travel patterns and address regional economic recovery and resilience, while continuing to improve regional mobility, air quality, social justice and the advancement of equity.”

2020 LRTP Technical Document and Next Steps

Technical document provides the following detail and data:

- > Public engagement metrics
- > Project and program descriptions
- > Performance Measures
- > Subregional demographics and travel patterns
- > Travel demand model analysis and assumptions
- > Financial forecast fund types and assumptions



Next steps:

- > Continued project/program development per 2020 LRTP
- > Short-Range Transportation Plan Development
 - Strategic project list
 - Financial forecast update
 - Prioritized actions
 - Implementation roadmap





File #: 2020-0619, File Type: Informational Report

Agenda Number: 30.

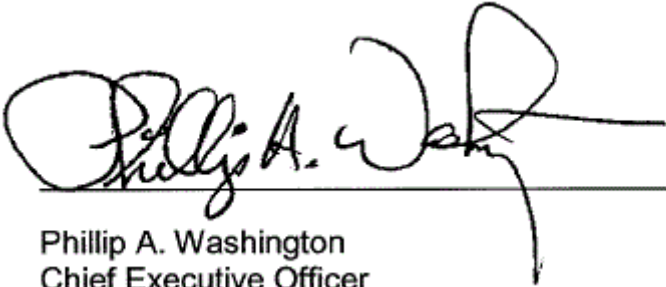
**EXECUTIVE MANAGEMENT COMMITTEE MEETING
SEPTEMBER 17, 2020**

SUBJECT: UPDATE ON TAP MOBILE APP

ACTION: ORAL REPORT

RECOMMENDATION

RECEIVE oral report on Tap Mobile App.



Phillip A. Washington
Chief Executive Officer

2020-0619

TAP Mobile App Update

Robin O'Hara

Executive Officer, Finance

September 15, 2020

Executive Management Committee

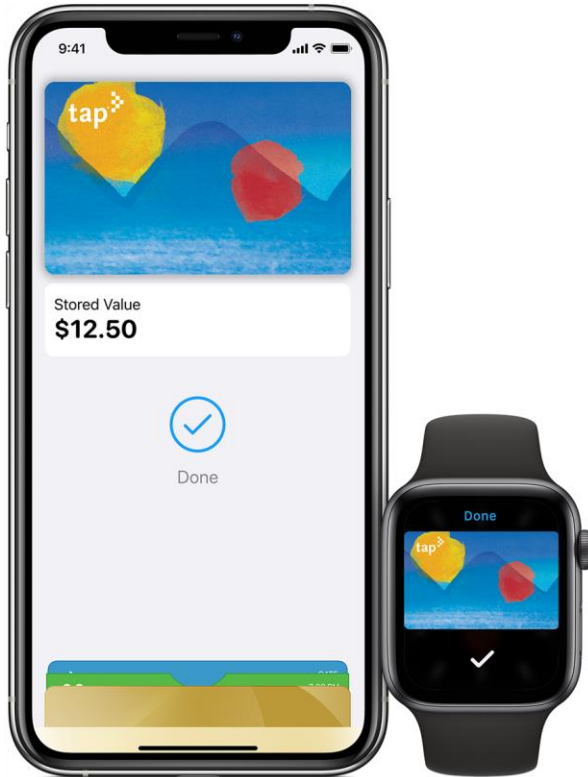




TAP Mobile App Launched September 3, 2020

- Board Chair Mayor Garcetti and Chief of Staff Nadine Lee demonstrated TAP on iPhone and Apple Watch on Facebook Live
- Even with low ridership and no front door boarding available, there were over 2000 downloads of the app in the first 24 hours

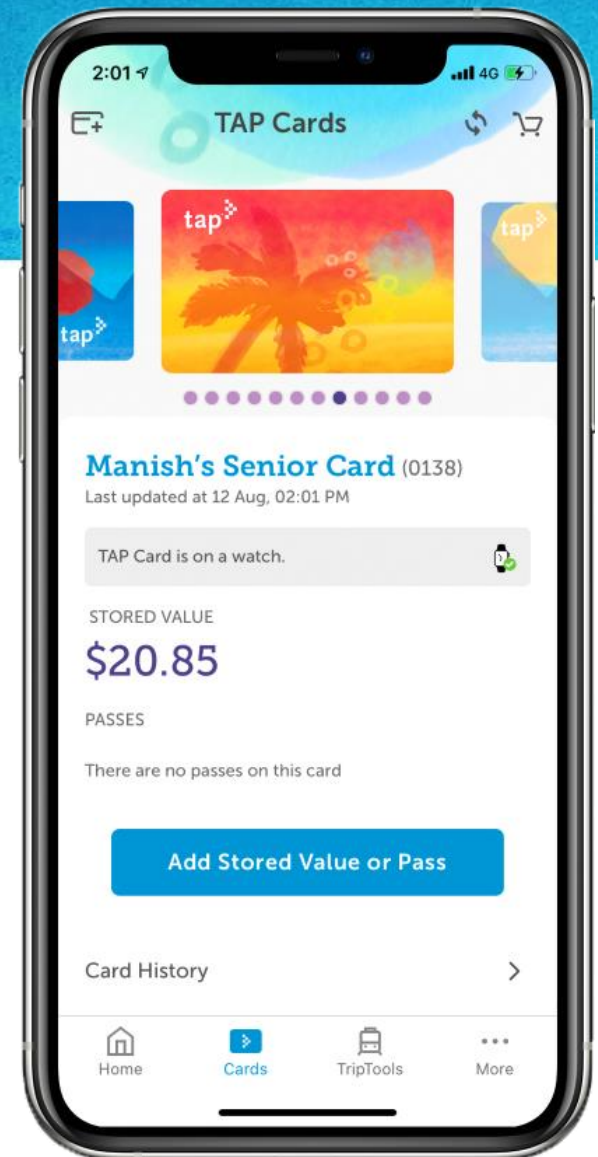
Features



- Safe, touchless technology – hold your iPhone or Apple Watch *near* validator to pay fare
- You don't have to open the app: iPhone will wake up and validate fare, even from a dark screen
- For tourists and occasional riders, you don't need the App. Just add a TAP card to your Apple Wallet and start riding!

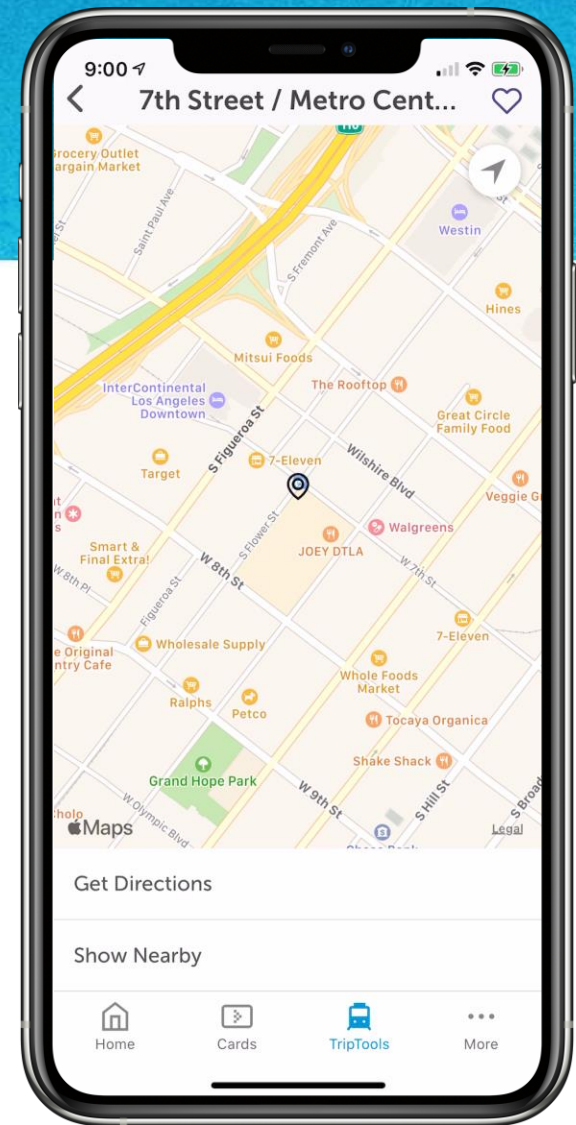
More App Features

- Includes LIFE low income fares and all Senior, Disabled and Student Reduced Fares,
- Features multimodal programs like Microtransit (coming soon) and Bike Share
- If you have a TAP account, all your registered cards automatically appear when you download the app
- Easily add new cards and register for discounts, promotions and more
- All fares loaded on your iPhone's TAP card can be used immediately

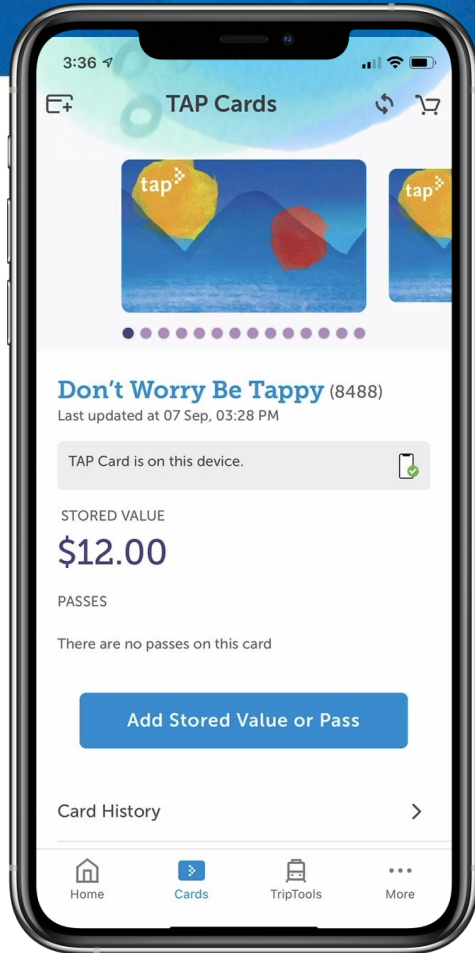


Trip Planning

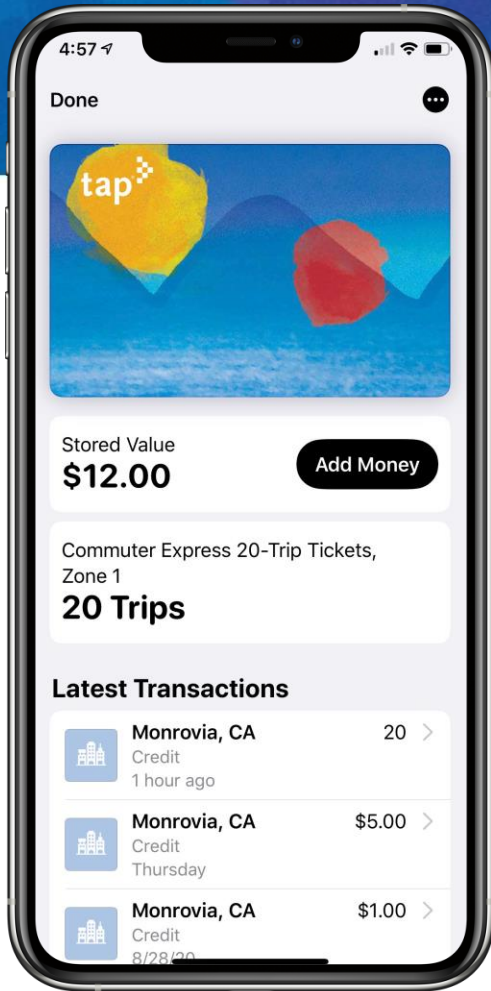
- TripTools enables planning for bus, rail, and Bike Share trips
- Search or zoom the touch-friendly map to search transit in area of your choice
- Includes geolocation of nearby stops and stations
- Gives departure and arrival times for searched bus routes or rail lines
- Save favorite routes or lines and get departure and arrival times



26 Transit Agencies Included



- Add passes for any TAP agency
- Offers PayNearMe for easy cash loading at 7-Eleven or Walgreens
- Load with cash at a TVM or a bus farebox



< Here's how it looks in the Apple Wallet.
Your fare is ready to use immediately.

A First-of-Its-Kind



Only two cities in North America have this full-featured transit card: Washington DC and LA

Marketing Outreach

- Marketing efforts from both Apple and Metro
- Phased Marketing plan enables more marketing when front doors open

Note: Android platform and marketing campaign coming soon

Tap to play >

Phased Marketing to Continue Through Fall





Board Report

File #: 2020-0565, **File Type:** Motion / Motion Response

Agenda Number:

**EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 17, 2020**

SUBJECT: FARE CAPPING

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE this report on the evaluation of fare capping for Metro, update on the review of EZ transit pass pricing, and potential changes to the current fare structure.

ISSUE

As part of a strategy to provide economic relief for customers as Los Angeles County enters the recovery phase of the COVID-19 emergency, staff was instructed in Motion 36 to report back on an implementation plan for a fare capping/best fares system (Item G) and evaluation of EZ transit pass pricing (Item E). Fare capping allows customers who rely on transit and ride frequently to take advantage of transit passes without having to purchase them in advance.

BACKGROUND

TAP serves 27 transit agencies in Los Angeles County, including Access Services. TAP payment offers customers the opportunity to travel seamlessly on local and express lines, and to transfer from one transit agency to another. TAP is flexible and allows partner agencies to set their own fares and fare products, including pricing for transfers and passes. Different rider classifications accommodate seniors, persons with disabilities, and students. TAP also accommodates the Low-Income Fare is Easy (LIFE) Program for eligible customers to automatically receive their discount when purchasing fares.

There are over 750 fare product variations among the TAP partner agencies. Stored Value and EZ transit pass are accepted on virtually all partner agency systems. (Compton Renaissance Transit Systems does not accept EZ transit pass), and interagency transfers are accepted on 19 transit agencies.

DISCUSSION

Findings

Fare capping or best fares is a pay-as-you-go system that enables customers to pay for a pass with single trip payments. Instead of purchasing passes upfront, customers simply use their TAP card to pay for each trip with Stored Value. Customers pay as they ride and can earn a day, week or month pass. To achieve this, the TAP card calculates two things: the value of paid single rides and whether it falls within the pass period. See Table 1 and 2.

If fare capping was implemented on Metro for example, a TAP customer would not pay more than \$7 in a day, \$25 within seven days, or \$100 within 28 days.

Metro’s One-Ride base fare for local routes is \$1.75, while a Metro Day Pass is \$7. When riding local routes, a customer’s fare would be “capped”, and they would not be charged after the fourth boarding since the customer reached the daily threshold of \$7, which is equivalent to the value of a Day Pass.

Table 1: Example of Daily Capping for Customer Traveling Local Routes in One Day

	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Total Cost
One-Ride	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$8.75
Daily Capping with Stored Value (SV)	\$1.75	\$1.75	\$1.75	\$1.75	No Charge	\$7.00

Table 2: Example of Weekly Capping for Customer Traveling Local Routes within 7 Days

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total Cost
Weekly Capping with SV	\$7.00	\$7.00	\$7.00	\$4.00	No Charge	No Charge	No Charge	\$25.00

Fare Capping at Other Transit Agencies

Nationally, a number of transit agencies have implemented fare capping on their systems at various capping levels, including in Portland, Miami, Indianapolis, St. Louis, San Jose, and Houston.

Each transit agency differs in how they offer or present best fares to customers:

- Portland’s Tri-Met was the first U.S. agency to institute fare-capping. TriMet’s success with fare capping is due to replacing their fare structure with new fare policies. TriMet offers fare capping on daily and monthly fares.
- Miami Dade Transit offers fare capping on daily fares but does not call it “fare capping,” instead they incentivize customers to use their smartcard and “pay no more than \$5.65 a day.”
- Indianapolis IndyGo offers daily and weekly fare capping. Daily fare capping is available for all registered and unregistered cards, while weekly fare capping is offered only to registered accounts.
- Santa Clara Valley Transit Authority in San Jose features a “Day Pass Accumulator” ensuring Clipper card customers never pay more than the price of a day pass.
- Houston Metro does not sell a day pass outright, instead the agency’s messaging is to “activate” a day pass with three paid taps.

Table 3: Fare Capping at Peer Transit Agencies

	DAILY CAPPING	WEEKLY CAPPING	MONTHLY CAPPING
PORTLAND TRIMET	✓		✓
MIAMI DADE TRANSIT	✓		
INDIANAPOLIS INDYGO	✓	✓	
ST. LOUIS METRO	✓		
SANTA CLARA VTA	✓		
HOUSTON METRO	✓		

Fare Capping at International Agencies

Fare capping has also been implemented in international cities such as London and Dublin. The Oyster card in London was the first in the world to implement fare capping.

Transport for London (TfL) offers “pay as you go” fares. Fares are capped for the times of day (peak and off-peak) depending on rider class and the type of transit based on a zone system. Fare capping is available for bus, Tube, tram, Docklands light Railway (DLR), London Overground, TfL Rail and most National Rail journeys in London.

The TFI Leap Card is the smartcard system used across Dublin and surrounding counties. Similar to TAP, the Leap Card is valid on various agencies in the Dublin region. Dublin City Bus, Luas (tram/light rail service), Dublin Area Rapid Transit (DART) and Commuter Rail offer daily and weekly capping not only for full fare customers, but also students and children under 19.

Considerations

Fare capping increases fare equity since low-income riders are offered an opportunity to pay as they go and “purchase” or earn a pass one ride at a time rather than purchasing a pass in advance. This may greatly enhance the customer experience for everyone, but in particular for low-income customers, as they will no longer have to make an upfront purchase for passes. TAP will automatically make the best value calculation based on the number of rides they take. All they will need is a TAP card loaded with Stored Value. Customers can load Stored Value onto their TAP cards with cash or debit/credit card at over 1,000 TAP vendor locations, TAP Vending Machines, bus fareboxes, *taptogo.net*, or by phone.

Implementation Strategy

The current TAP system can support fare capping, but it will require additional software development. Since TAP is a regional program inclusive of multiple transit agencies, there are some system complexities to consider before fare capping can be implemented. Extensive testing and marketing efforts will be crucial for the success of the program.

TAP cards will require a “fare capping” configuration written onto them in order to make fare capping possible for customers. For existing TAP cards in circulation, customers may be asked to hold their

cards to a TAP reader for a few seconds longer to load the configuration settings and to activate fare capping. Alternatively, new TAP cards issued will already include this configuration.

Fare capping will work best if capping is in increments of seven, such as: 1-Day, 7-Day, 14-Day, 21-Day, and 28-Day.

Staff recommends a phased implementation approach with first initiating a fare capping pilot of daily capping for select Metro customers. Software development and testing efforts to implement Phase 1 will take between 9 to 12 months. Additional development and testing will be required for the later phases.

To expand fare capping to Phase 3, staff must work with partner agencies to reduce or eliminate local passes to ensure smooth and efficient operation of the fare capping system.

Phase 1 - Pilot Rollout, Metro Only (minimum of six months)

1. Select pilot test group
2. Monitor and expand

Phase 2 - Pilot Expansion, Metro Only

1. Expand to all customers

Phase 3 - Regional Fare Capping

1. Add regional fare capping, akin to EZ transit pass
2. Work with TAP partner agencies to explore development of possible regional daily capping and weekly capping for future expansion

EZ transit pass Pricing

EZ transit pass is a monthly regional transit pass valid on Metro and 22 local operators in Los Angeles County. The program was established in 2002 through a collaborative process between Metro and other founding transit operators. The full fare pass is currently priced at \$110 for the Base EZ, plus \$22 per zone up to eleven zones. Transit operators are compensated at a per boarding rate, equal to the average cash fare on their systems. Because EZ transit pass revenues are shared amongst 23 transit operators, any adjustment to the price should be a regional decision.

A special working group of representatives from Metro and other EZ transit pass participating agencies convened in July to begin discussing options for changes to EZ transit pass pricing to meet the same affordability goals as the 50% reductions of Metro's full fare passes. Because the Base EZ is valid for local bus service on all participating operators, pricing must be assessed in relation to all monthly passes offered by operators, as well as the promotional \$50 Metro 30-Day Pass. The special working group will meet monthly to assess the regional financial impacts of potential adjustments to the EZ transit pass and expects to develop a consensus on the recommended path forward by the

end of the calendar year.

FINANCIAL IMPACT

The preliminary cost proposal for software development to initiate a fare capping system is estimated in an amount not to exceed \$5 million. This preliminary estimate does not include costs for TAP card replacements, or related costs such as for marketing.

Impact to Budget

The agency will presumably experience reduced revenue when fare capping is implemented since customers will benefit from the best fare based on their use of transit. Portland TriMet reported decreased revenue since implementing fare capping at their agency, and as of FY20 (pre COVID-19), revenues are expected to continue trending lower.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Pilot and implementation of farecapping would support:

- Strategic Plan Goal #1: Provide high quality mobility options that enable people to spend less time traveling as part of an effort to manage transportation demand through fair and equitable pricing structures.
- Strategic Plan Goal #2: Deliver outstanding trip experiences for all users of the transportation system by improving legibility, ease of use, and trip information on the transit system.

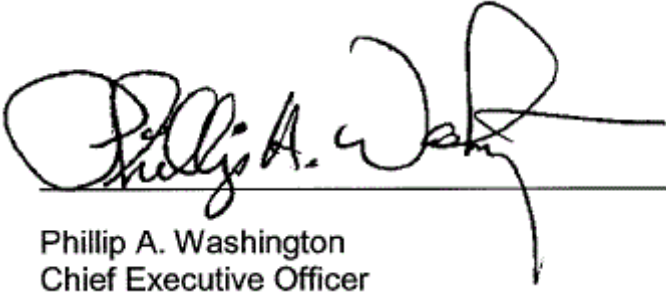
NEXT STEPS

Planning and analysis for fare capping will continue. Fare capping is beneficial since staff will be able to manage a much simpler fare system and the agency should see a reduction in software costs over time. Staff intends to return to the Board within six months or less with a budget and timeline for consideration and approval.

As for EZ transit pass pricing, over the coming months, the working group will explore potential reductions to the EZ transit pass price and associated changes to the operator reimbursement policy. The impacts of possible adjustments will be considered and analyzed, with a goal of arriving at a working group recommendation by the end of 2020.

Prepared by: David Sutton, Executive Officer, TAP | 213.922.5633

Reviewed by: Nalini Ahuja, Chief Financial Officer | 213.922.3088



Phillip A. Washington
Chief Executive Officer

Receive and File: Fare Capping Response to Motion 36

Executive Management Committee

September 17, 2020

Fare Capping/Best Fares – How it Works

- Instead of paying for a pass up front, customers use their TAP cards to pay-as-they-ride to earn 1-day, 7-day or 30-day passes
- Customers load their TAP cards with Stored Value and tap their TAP cards at fareboxes, station validators and gates
- Once the customer reaches the fare equivalent of a pass within the required pass period, the remaining rides are at no cost

Example of Daily Capping when Traveling Local Routes in One Day

	Trip 1	Trip 2	Trip 3	Trip 4	Trip 5	Total Cost
One-Ride	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$8.75
Daily Capping with Stored Value	\$1.75	\$1.75	\$1.75	\$1.75	No Charge	\$7.00

Fare Capping Implementation Strategy

- Additional software development required to TAP system
- TAP cards will need “fare capping” programming
- 9 to 12 months development and testing
- Preliminary estimate to develop software is about \$5 million
- Minimum 6-month pilot for the fare capping of day pass for select Metro customers
- Will return to the Board within six months with full implementation plan and budget

Fare Capping Phased Approach

Phase 1: Pilot Rollout, Metro only, Day Pass Capping

- Select pilot test group
- Monitor and expand
- Minimum of six months

Phase 2: Pilot Expansion, Metro only

- Expand to all customers
- Expand to other Metro passes

Phase 3: Explore Potential for Regional Fare Capping

- Work with TAP partner agencies to explore development of possible regional daily, weekly and monthly capping

Review EZ Transit Pass Pricing

- EZ transit pass is valid on Metro and 22 municipal operators
- Adjustments to pricing must be a regional decision since EZ transit pass revenues are shared among 23 transit operators
- Pricing must be considered in relation to the promotional \$50 Metro 30-Day pass and all monthly passes offered by other operators
- Special working group convened in July, made up of representatives from Metro and EZ participating agencies
- Meetings will be held monthly to assess regional financial impacts of potential adjustments
- Recommendation to come by end of 2020



Board Report

File #: 2020-0048, File Type: Oral Report / Presentation

Agenda Number:

**EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 17, 2020**

SUBJECT: LOS ANGELES AERIAL RAPID TRANSIT PROJECT UPDATE

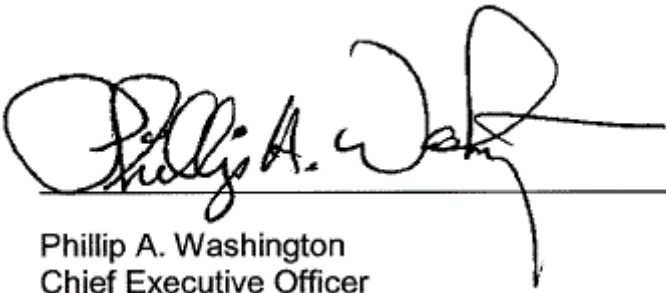
ACTION: ORAL REPORT

RECOMMENDATION

RECEIVE oral report on the Los Angeles Aerial Rapid Transit Project.

Prepared by: Holly Rockwell, SEO - Real Estate, Transit Oriented Communities and Transportation
Demand Management, (213) 922-5585

Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920



Phillip A. Washington
Chief Executive Officer



**LOS ANGELES
AERIAL RAPID TRANSIT**

Metro Executive Management Committee

September 17, 2020



Project History | Background

- **Spring 2018** Aerial Rapid Transit Technologies (ARTT) initiated its proposals to Metro's Office of Extraordinary Innovation for an aerial rapid transit gondola system to connect Union Station and Dodger Stadium
- **Spring 2019** Metro agreed to act as lead agency under CEQA
- **October 2020** Metro release of Notice of Preparation, beginning EIR process



Transit Link to Dodger Stadium | Cleaner Air, Less Traffic

- Dodger Stadium is one of the region's most visited venues
- The successful Dodger Express bus service has helped over 2 million fans to use transit on game days
- With a permanent transit link that provides game-day capacity of 10,000 to 12,000, LA ART could replace up to 3,000 trips before and after each Dodger game and Stadium event
- The sustainable, zero-emission project could reduce freeway and neighborhood street congestion and enhance community safety, while supporting clean air and sustainability goals
- Year-round operation opportunities to increase transit access for underserved communities and to parks



Urban Applications of Aerial Rapid Transit

Modern applications of urban rapid transit have seen the evolution of aerial transit technology as a feasible mode of urban rapid transit that is among the safest transit systems in the world, as multiple redundancies ensure rider and public safety



Portland, Oregon



London, England



Mexico City, Mexico



Ngong Ping, Hong Kong

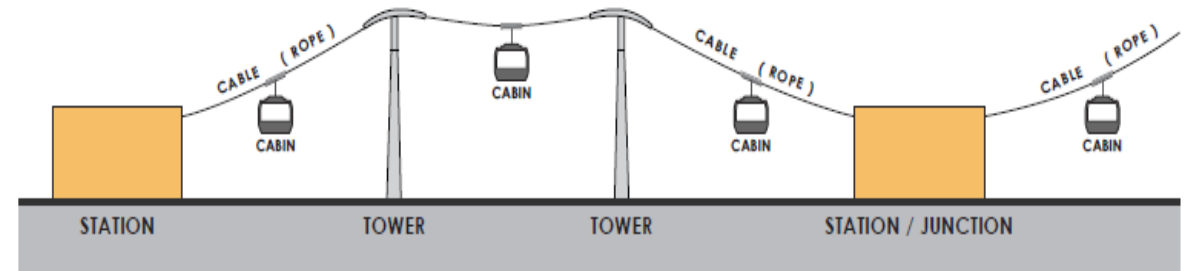


La Paz, Bolivia

Gondola System Overview

LA ART system proposes passenger stations, a non-passenger junction, and towers to support the aerial cables that carry the gondola cabins, with capacity for 30-40 passengers

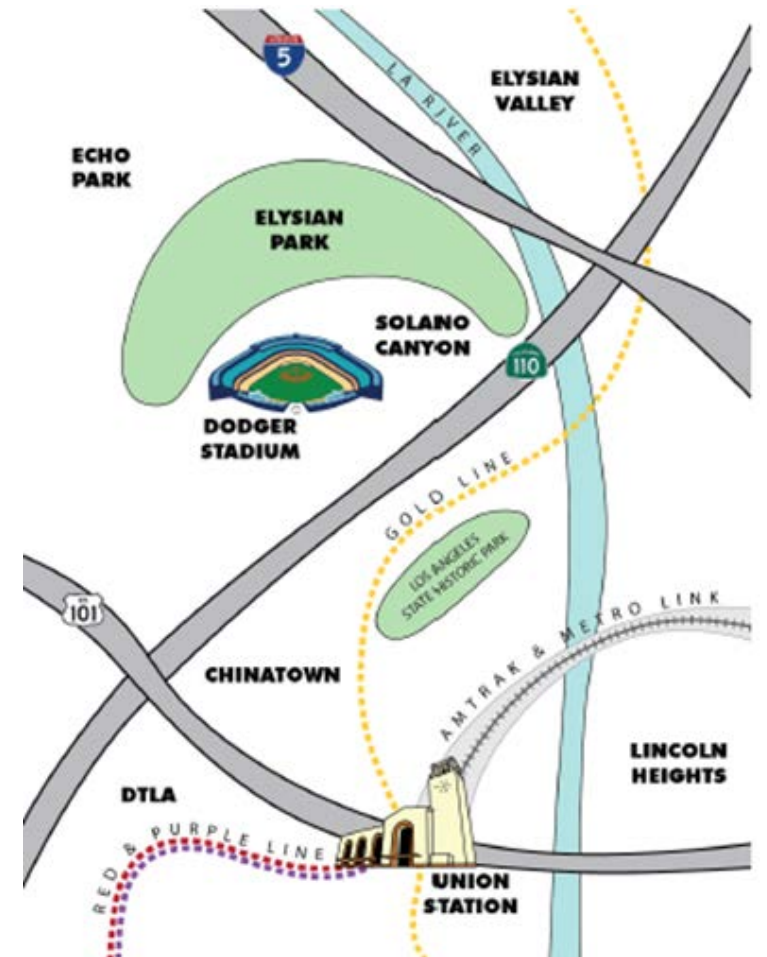
- High passenger capacity: detachable cabins with “3S” system
 - “3S” system includes three cables: two “track ropes” for stability and a third “haul rope” to circulate the cabins
 - Capacity to move approximately 5,500 people per hour per direction with quiet, safe, environmentally friendly system
- Cabins detach from continuously circulating haul rope and slow down upon entering a station for passenger exit and entry, then reattach to haul rope
- Cabins allow for sitting or standing, are fully ADA accessible, and provide room for baby strollers and bicycles



Koblenz, Germany

Connecting Union Station, Parks/LA River, and Dodger Stadium

- Route generally located within the public right-of-way
- Starts adjacent to Union Station and El Pueblo, then follows Alameda Street in a northeast direction, flying over the Los Angeles State Historic Park to Bishops Road and then over the SR-110 to Dodger Stadium
- Stations are planned at Union Station and Dodger Stadium
- Connects the communities of El Pueblo, Chinatown, Mission Junction, Elysian Park, and Solano Canyon to Union Station, the region's transit hub
- Potential to expand transit service in these areas with intermediate station next to Los Angeles State Historic Park
- The ride is just over 1 mile and will be short and enjoyable, with a travel time between Union Station to Dodger Stadium of about seven minutes



Connection at Union Station | The Region's Mobility Hub

- LA ART provides a safe, efficient and fun alternative to driving by connecting directly to our region's mobility hub at Union Station
- Attracts new riders to the Metro system through a unique experience connecting to Dodger Stadium
- Union Station currently hosts 36 million people per year and 100,000 daily transit riders
- Metro forecasts 72 million people per year and 200,000 daily riders in 2040
- Proposed Union Station location over Alameda Street integrates with Metro's proposed Union Station Forecourt and Esplanade Improvements and provides connection to historic El Pueblo



LA ART Union Station Alameda Station (Concept Design)



LA ART Union Station Alameda Station

(Concept Design Viewed from Metro Proposed Forecourt with Passenger Access)



Transit Connections for Parks, LA River, and Communities

- Serving Dodger home games and events at Dodger Stadium, LA ART can also operate daily for community, park visitors, and tourists
- Consistent with Metro's Transit to Parks Strategic Plan, LA ART has the potential to enhance transit access to Los Angeles State Historic Park, the Los Angeles River, and Elysian Park
- To advance public equity goals, LA ART has the potential to connect El Pueblo, Union Station, Chinatown, the Mission Junction area (including William Mead Homes), Cathedral High School, and Solano Canyon
 - Providing access to Union Station via LA ART can increase regional connectivity and access with cleaner air for these communities



Potential for Community and Environmental Benefits

High-Capacity, Zero-Emission, Quiet Operation

- LA ART offers the capacity to move approximately 5,500 people per hour per direction using environmentally friendly, zero-emission technology
- Aerial rapid transit technology is quiet, with noise from operations expected to be below background noise levels in an urban environment

Reduce Congestion and GHG Emissions, Improve Safety and Air Quality

- LA ART's capacity could take 3,000 cars off the roads before and after each Dodger game or event at Dodger Stadium to ease congestion and improve safety on neighborhood streets and the SR-110 freeway
- Reductions in VMT and congestion lead to reduced GHG emissions and improved air quality
- The emission reductions benefit communities with economic challenges and burdened by pollution

LA ART's goals include working with Metro to identify affordable, accessible fare opportunities for community and park access

Potential Broadway-State Historic Park Pedestrian Bridge

Metro's L Line (Gold) ROW separates the State Historic Park from North Broadway, together with a steep grade; LA ART may be able to assist with a proposed ADA accessible pedestrian/bicycle bridge to cross over the Gold Line, creating more connections between the State Historic Park and areas of Chinatown, Cathedral High School, and Solano Canyon



Source: LASHP Pedestrian Bridge Feasibility Study



Source: LASHP Pedestrian Bridge Feasibility Study



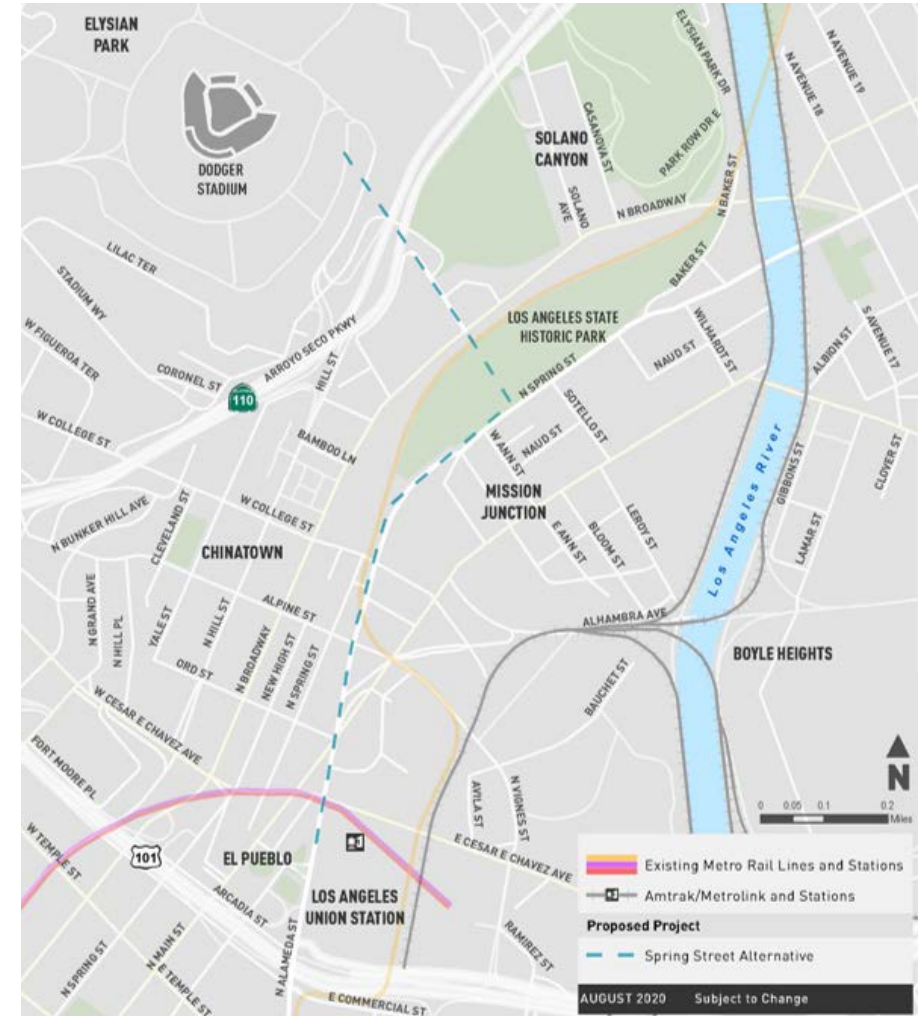
Source: LASHP Pedestrian Bridge Feasibility Study

Spring Street Alternative

In the Spring Street Alternative, near the intersection of Spring Street and Ann Street, LA ART would include a Park Station on Spring Street and fly northwest over the Los Angeles State Historic Park, then above Bishops Road and the 110 Freeway to Dodger Stadium

The Spring Street Alternative would provide new transit access to the Los Angeles River, William Mead Homes, and the Los Angeles State Historic Park and environs

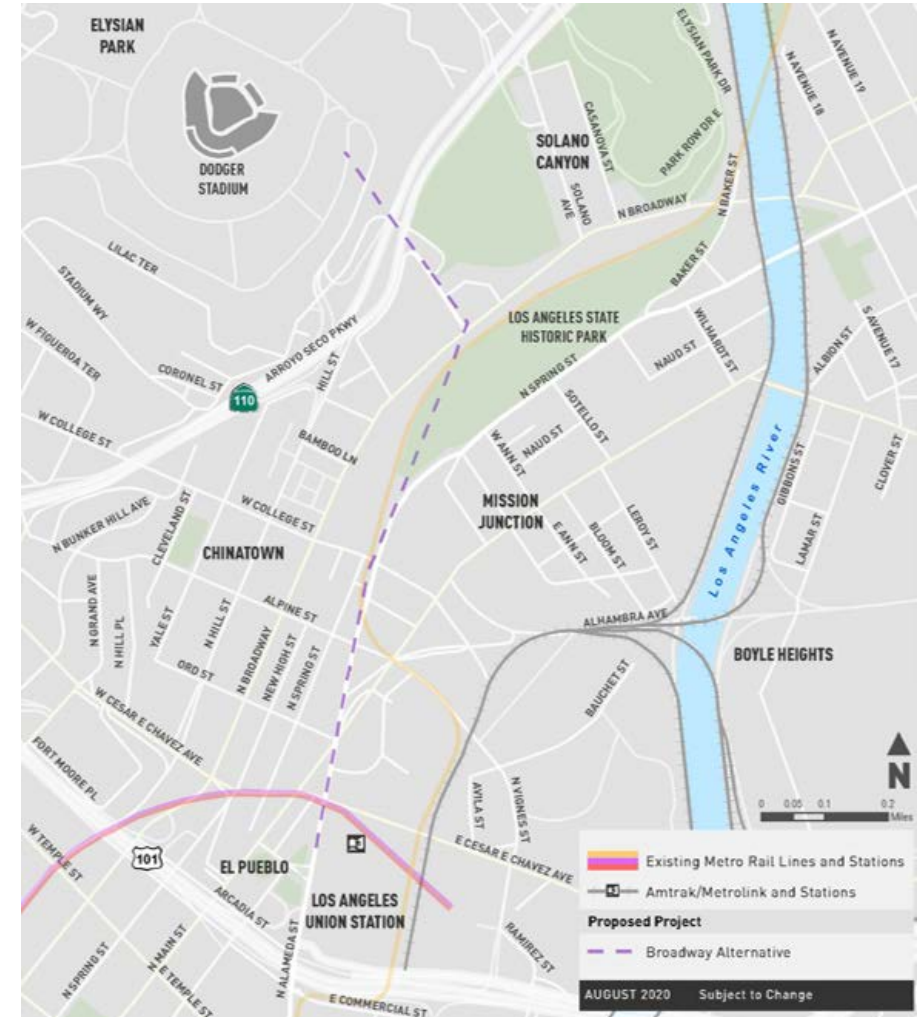
Potential public benefits for Los Angeles State Historic Park under this alternative include support for the pedestrian bridge at North Broadway to provide access for walkers and bicycles who cannot access now from Broadway, and the potential to support other Park amenities such as tree planting



Broadway Alternative

The Broadway Alternative would fly over the Los Angeles State Historic Park near the Metro L Line (Gold) ROW and continue northwest, with a potential station location at the intersection of North Broadway and Bishops Road and continue above Bishops Road and the 110 Freeway to Dodger Stadium

Public benefits being considered for the Los Angeles State Historic Park include support for a pedestrian bridge between North Broadway and the Los Angeles State Historic Park, to provide access for walkers and bicycles who cannot access now from Broadway

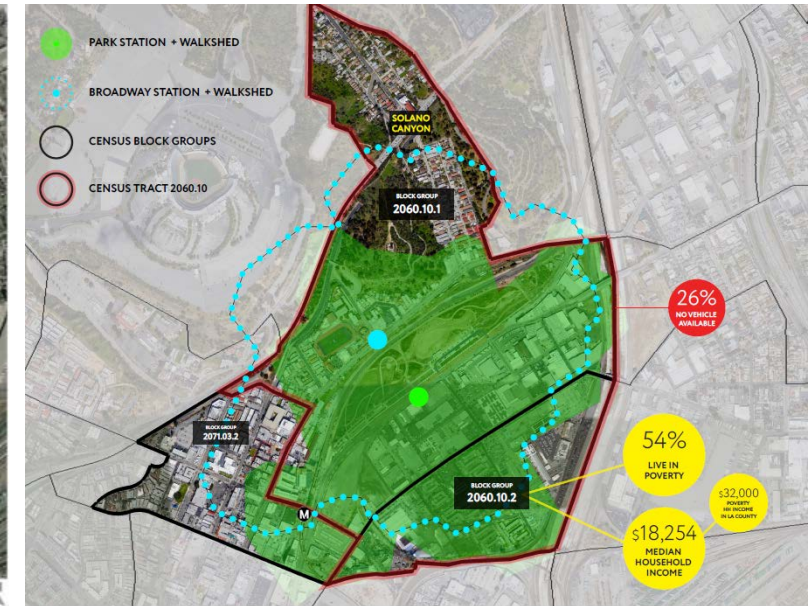
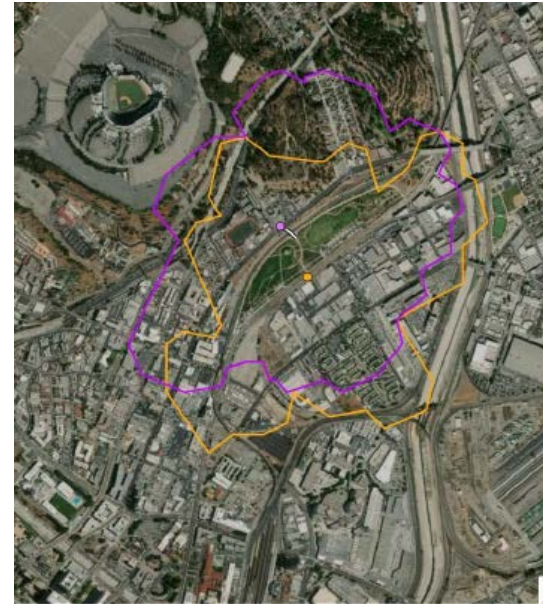


Intermediate Station Walkshed | CalEnviroScreen

Both station alternatives increase transit access beyond that provided by the existing Metro Chinatown station

The Spring Street Alternative encompasses additional areas and more River access

Emissions benefits and increased access can be provided for the area between Union Station and Dodger Stadium, which includes disadvantaged communities identified by CalEnviroScreen 3.0 as in the top 98% of CA communities burdened by pollution



Views from a Cabin | Get There By Air

LA ART enhances transit rider experience by providing panoramic, unique scenic views of Los Angeles and iconic Dodger Stadium



LA ART Dodger Stadium Station (Concept Design)



Metro Community Outreach Plan

- With the Notice of Preparation, expanded outreach will begin consistent with the Metro Community Outreach Plan for LA ART
- LA ART has initiated early outreach to key stakeholders along the route
- Metro staff has worked with LA ART to develop the Community Outreach Plan to expand engagement and broaden outreach during the environmental review process
- Numerous opportunities will be made available for environmental review participation
 - A “Virtual Open House” will be online during the NOP Scoping Period providing information about the proposed LA ART project and how to get involved
 - A “Virtual Scoping Meeting” will be held on October 22
- In conjunction with Metro’s NOP mailing, LA ART is mailing information to community members along the route and additional stakeholders, including a link to website information with translation available in English, Cantonese, Spanish and other languages



LOS ANGELES
AERIAL RAPID TRANSIT



LOS ANGELES
AERIAL RAPID TRANSIT



LA ART



LA ART

RETHINK GETTING THERE

Thank You



LA ART

**Board Report**

File #: 2020-0439, **File Type:** Plan**Agenda Number:** 33.

**EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 17, 2020****SUBJECT: MOVING BEYOND SUSTAINABILITY****ACTION: ADOPT PLAN****RECOMMENDATION**

ADOPT Moving Beyond Sustainability as Metro's strategic plan for sustainability over the next ten years.

ISSUE

The 10-year sustainability strategic plan, *Moving Beyond Sustainability (MBS)*, is Metro's most comprehensive sustainability planning document to date and sets goals, targets, strategies and actions that align with and emanate from other key Metro guidance documents, including *Vision 2028 Plan*, *Long Range Transportation Plan*, *Equity Platform* and our *Resiliency Indicator Framework*. The MBS updates and consolidates the principles enshrined in the *Metro Sustainability Implementation Plan (MSIP)* and the *Countywide Sustainability Planning Policy (CSPP)* and provides a comprehensive framework for Metro's sustainability strategy for the next decade. See Attachment A for a copy of the *MBS Report*.

DISCUSSION

Sustainability is at the heart of the culture here at LA Metro. The Metro Board has adopted in 2008, our original strategic plan for sustainability, the *MSIP*. That plan defined how sustainability is planned, executed, and maintained throughout our agency. In 2012, Metro adopted the *CSPP* to serve as a guide to more fully integrate sustainability into Metro's planning activities. Throughout these years, sustainability efforts within Metro have also evolved from being simply a funded program through an annual budget allocation, to a revenue generating enterprise whose proceeds are reinvested into programs and infrastructure that continually improve the environmental, social, and economic footprint of LA Metro.

Our agency's sustainability program is regarded as a model program across the country with some of the following (examples of) firsts in the country or the transit industry:

- First transit agency in the nation to participate in a carbon credits trading program where revenues are reinvested back to value- and cost-savings projects. Over \$100M in revenues

generated since 2017. Our sustainability program is currently net zero cost since FY18;

- First rail maintenance facility for a transit agency to achieve ISO 14001:2004 certification, Metro Red Line Yard;
- First transit agency to achieve ISO 14001:2015 certification for Transit Operations;
- First transit agency to achieve ISO 14001: 2015 certification for Transit/Transportation Construction;
- Best Environmental Management System among transit facilities, based on Columbia University research;
- First entity (private or public) to achieve Envision-Platinum for any transit development, Expo Phase 2, 2016;
- First sustainability training program in the public sector to achieve a Model Program Award from the National Transit Institute;
- Largest *multi-sourced (i.e., landfill, wastewater treatment plant, and dairy)* renewable natural gas procurement and award for any transportation fleet in the US;
- Environmental Training Institute: Largest environmental and sustainability training program in the transit industry with approximately 100 unique courses (about 80 of these have been developed in house) simultaneously being delivered throughout LA Metro and LA County;
- First transit agency to achieve the American Public Transportation Association Sustainability Commitment Platinum Level. The next transit agency to achieve this designation was two years later;
- First transit agency in the nation to run an electric vehicle charging program focused on first and last mile, to and from park and ride stations;
- First transit agency to develop a series of construction and operations environmental and sustainability policies that impact the lives of more than 10 million Angelenos;
- First Green Construction Policy in the nation and cited by the USEPA as the best non-regulatory tool to reduce clean air in construction;
- First transit agency to develop a Climate Action and Adaptation Plan. This became the model document for the *APTA Recommended Practice Guidelines for Climate Action Planning*;
- First transit agency to develop a climate resiliency framework;
- First transit agency to incorporate sustainability and climate change into design criteria and specifications;
- First transit agency to develop a Water Action Plan and an Energy Resource and Conservation Plan;
- First Sustainable Acquisition Program in any industry that deals with both Operations and Construction; and
- First fully functional regional Sustainability Council in LA County that provides advise on the sustainable development of more than \$140B of infrastructure projects.

Approximately 150 sustainability and resiliency projects and initiatives are currently being implemented throughout our agency. These projects are creating value and potential revenue generation by monetizing environmental benefits and we're not stopping there.

With the recent appointment of our Chief Sustainability Officer and in response to the COVID-19 crisis, LA Metro's sustainability program needs to be even more visionary and adapted to the changed times. To do so requires close examination of our past achievements, develop improved strategies from lessons learned, and incorporate new data into our sustainability practice to ensure that benefits from our work continually to be enjoyed and derived throughout the life of those projects. Doing so will also allow new sustainability programs adapted to changed conditions in the least cost of implementation possible.

This process began in late 2018 when staff embarked on a comprehensive effort to consolidate the agency's sustainability functions into one sustainability strategic plan: the *Moving Beyond Sustainability (MBS)* plan. The plan's development has been a collaborative and inter-departmental effort led by the Environmental Compliance and Sustainability Department (ECSD) and the Countywide Planning & Development Department (Planning). This collaborative approach allowed us to identify and fill any gaps in our sustainability programs, unify streams of effort, and chart a holistic, long-term strategic direction for both of our sustainability initiatives in the agency as well as our activities across the region.

Throughout 2019 and early part of 2020, staff has reached out to hundreds of internal and external stakeholders to listen, develop strategies and actions, and understand points of collaboration to achieve common inter-department, inter-agency, and community goals.

In particular, staff conducted internal working sessions and several external workshops to shape the content of *MBS*. The draft *MBS* document was also released in Spring 2020 for a 66-day public input period that included engagement with Metro's Sustainability Council, informational booths at scheduled Metro NextGen Bus Plan workshops, meetings with local government and community groups, meetings with several Council of Government representatives, and an online survey (see Attachment B for the Public Comment Matrix).

The process led to the updated agency's vision, commitment, and guiding principles for sustainability. *MBS* clearly sets ambitious goals, targets, strategies, and actions in the following categories:

- Water Quality and Conservation;
- Solid Waste;
- Materials, Construction and Operations;
- Energy Resource Management;
- Emissions and Pollution Control;
- Resilience and Climate Adaptation; and
- Economic and Workforce Development.

Metrics identified in the plan allows our agency to measure our level of success and engagement. These metrics provide full accountability while maintaining fiscal responsibility during implementation. Metro has annually reported sustainability and environmental performance since 2010. Recently,

ECSD staff had also developed an online dashboard (<https://www.metro.net/projects/sustainability/reporting/>) to ensure transparency and accessibility to our data. Staff and stakeholders can use this interactive platform to develop new programs, understand trends, chart continual improvement, and celebrate successes. Our environmental and sustainability activities are supported through our Environmental Management System (EMS). Per the Board adopted Environmental Policy, the EMS is our agency's tool to consolidate, track, and manage environmental and sustainability programs.

MBS further addresses how sustainability at Metro will be guided and strengthened by the agency's commitment to equity and inclusion, environmental compliance, and livable neighborhoods. *MBS* envisions a future where transportation and mobility drive long-term environmental stewardship, social change, and economic prosperity across our agency and countywide.

MBS envisions a sustainable LA Metro operating at least as close to cost neutral as possible by setting goals to generate revenue, reduce costs, and identify alternative financing and funding opportunities. *MBS* is aligned with the City and County of Los Angeles' respective Sustainability Master Plans as well as those of the sustainability and resiliency plans of our region's sister agencies. The strategies here include those of the Climate Action and Adaptation Plan as adopted by the Board in the Summer 2019.

Finally, *MBS* aligns with the new financial parameters resulting from the impacts brought about by the COVID-19 pandemic and considers the goals of the *Long-Range Transportation Plan*, *Goods Movement Strategic Plan*, and other relevant plans that will also go to the Board for approval.

DETERMINATION OF SAFETY IMPACT

This Board action will enhance the safety standards for Metro. The implementation of the actions outlined in *MBS* will also contribute to improvements to Metro's system resilience, the comfort and safety of passengers, and the region's air quality and environment which will have a positive impact on the health and safety of our staff, riders, and surrounding communities. Staff is also developing a framework on the synergy of the sustainability program with that of Metro security guidelines.

FINANCIAL IMPACT

Adoption of this plan establishes the sustainability strategies and actions to be implemented to reduce Metro's environmental impact (like criteria air pollutants and greenhouse gas emissions) while reducing operational costs. The program plans, capital projects, and related activities are designed to monetize environmental benefits where proceeds are re-invested back into the program.

Such monetized value has been previously leveraged to produce agency revenue in the form of carbon credits, advanced mitigation credits, renewable energy credits and similar instruments. Any proceeds have been directed to the Board adopted Green Fund which the Board intended to be exclusively used for Metro's sustainability programs.

Where appropriate, management of the monetized benefits, Green Fund and costs associated with this plan will be overseen by the Chief Sustainability Officer.

Impact to Budget

There is no net impact to Bus and Rail Operating Budgets as well as capital programs. The source of funds for the implementation of *MBS* will be included in ECSD's budget under Project Numbers 450001 - Energy Conservation Initiatives, 450002 - Sustainability Design Guide, 450003 - Sustainability Environment, and 450004 - Carbon Emissions Greenhouse Gases in Cost Center 8420 Environmental Compliance and Services, Account 50316 Professional and Technical Services. Capital project life of project (LOP) budgets will be established for capital work associated with *MBS* implementation. LOP funding will be a mix of eligible and available local funds such as Proposition A 35%, Measure R, Measure M, Green Fund, or other funds appropriate for sustainability related capital projects.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This sustainability strategic plan supports Strategic Goals 2, 3, and 4 by optimizing the delivery and performance of Metro's transportation system through incorporation of sustainability, equity, livable neighborhoods, environmental compliance, and other sustainable principles and practices throughout Metro's organization and the transportation system.

ALTERNATIVES CONSIDERED

The Metro Board of Directors could decide not to adopt *MBS*. Staff does not recommend this alternative.

The current Metro Sustainability Implementation Plan was adopted by the Board in 2008. Over a decade of new climate data, technologies, lessons learned, and changed financial and funding landscape has made the MSIP's relevance and effectiveness moot. Our agency's continuing commitment to sustainability and resiliency include:

- Appointment of our Metro Chief Sustainability Officer in 2019;
- Investments in emerging technologies and programs through an annual allocation of funding for a sustainability capital programs;
- Development and implementation of a Green Bonds Initiative with cumulative proceeds of potentially over \$2B;
- Financial analysis and implementation of revenue generating programs totaling over \$100M in the last three years; and
- Continued exploration, invention, and implementation of innovative ideas at the frontline to reduce operational costs, increase cost-effectiveness, and promote agency efficiency in all that we do in procurement, planning, design, construction, and operations and maintenance

require a more robust, timely, relevant, and even more visionary plan than what is currently available to us.

The *MBS* facilitates the most holistic approach in the governance and implementation of our sustainability efforts across the agency and allows the optimization of limited resources at the highest level of financial value added and fiscal responsibility.

NEXT STEPS

Upon Board adoption, the Chief Sustainability Officer and his staff are committed to working across internal departments and with external partners and stakeholders to implement the *MBS* strategies and actions to achieve our sustainability and resiliency goals. The CSO will report annually on the progress using the sustainability metrics identified in the plan.

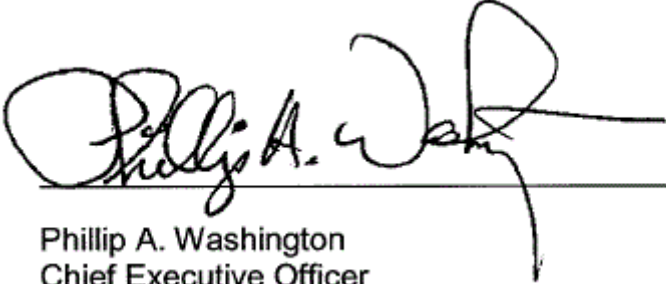
ATTACHMENTS

Attachment A. Moving Beyond Sustainability

Attachment B. Public Comment Matrix

Prepared by: Cris B. Liban, Chief Sustainability Officer, (213) 922-2471

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Phillip A. Washington
Chief Executive Officer

WE ARE MOVING BEYOND SUSTAINABILITY.

Sustainability Strategic Plan 2020



Metro[®]



**WE HAVE A
PLAN FOR
A BETTER LA,
WHERE EVERYONE
CAN THRIVE,
AND WHERE
LESS OF US
DRIVE ALONE.**





IT'S A PLAN to stop bumper-to-bumper idling, moving instead towards a resilient future for ourselves and the planet.

THUR







Metro is a lifeline to millions of people in the most populous county in the United States, including first responders, hospital staffs and other essential workers. As we address this rapidly evolving landscape, our vision for a sustainable transportation system remains clear.

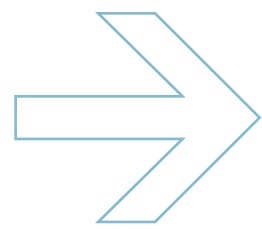
Metro is leading a bold movement to reimagine LA County: one that expands mobility, increases access to opportunity and advances environmental stewardship, while also focusing on equity. We are thoughtfully and strategically moving forward to combat climate change and reduce LA County's carbon footprint. In addition to our role in reducing single-occupancy vehicle emissions, Metro is on track to reduce our total greenhouse gas emissions by 79% from 2017 levels through fleet electrification and system retrofits by 2030.

To achieve those goals, we are investing in our communities and empowering tomorrow's leaders. Metro is developing the county's premiere transportation infrastructure school, the SEED School of Los Angeles County, to prepare future generations of Angelenos to address emergent systemwide and regional challenges.

Through innovation, we are reimagining LA County – transforming the region into a more resilient, sustainable and vibrant place to live, work and play for everyone.

Phillip A. Washington
Chief Executive Officer





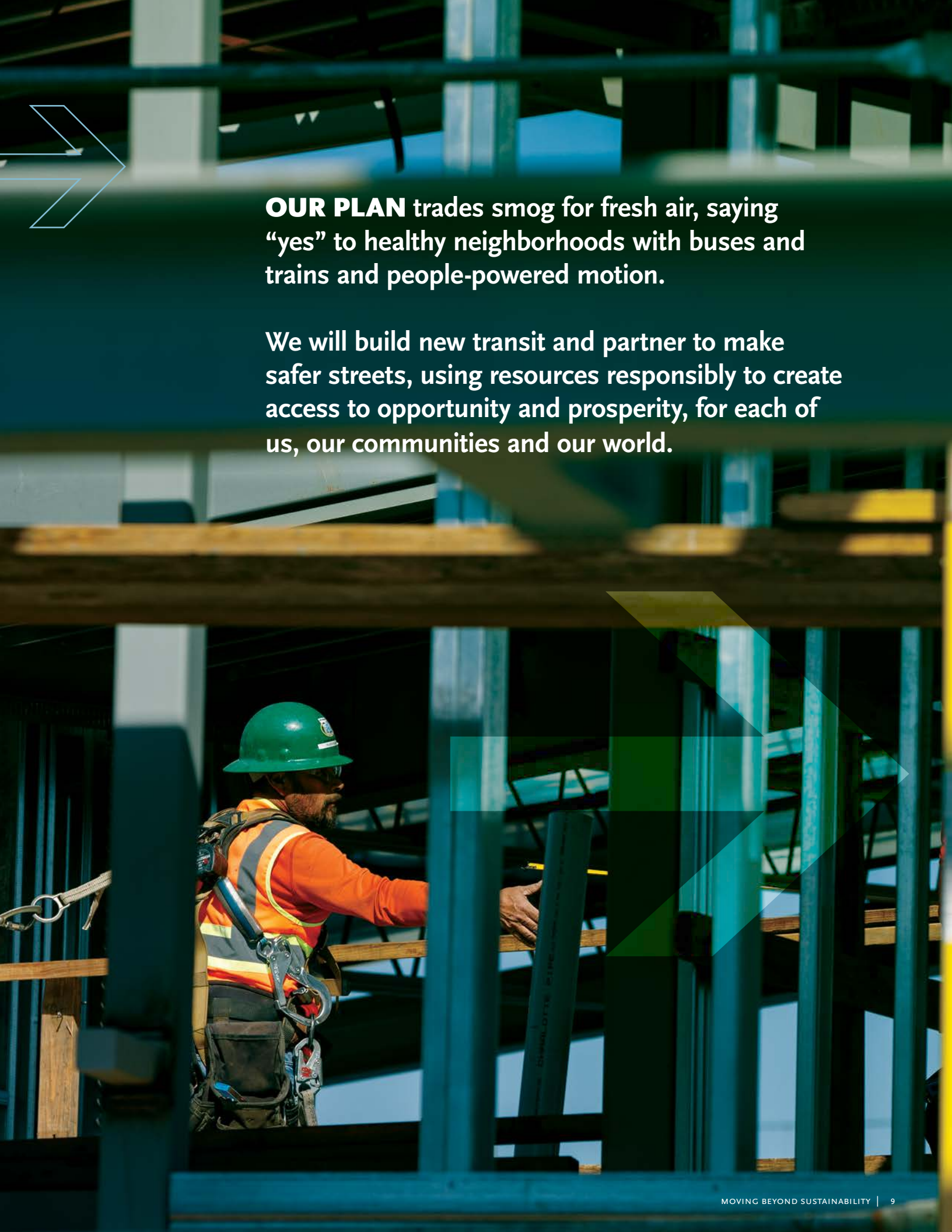
The 2020s will be defined as the decade of climate action. Now, more than ever, bold and ambitious policies are needed to tackle the challenges of climate change here in LA County. Acknowledging that passenger vehicles are the region’s single greatest source of greenhouse gas emissions is central to that challenge and Metro is already working to overcome it.

By 2030, we will transition to a 100% electric bus fleet and triple our on-site renewable energy generation, and we will continue to plan and build transformative transit projects that reduce emissions, improve air quality and benefit public health across the region.

Along with implementation of the City of Los Angeles’s *Green New Deal*, these efforts will be crucial to not only combat climate change, but also reimagine a more prosperous, healthy and equitable future for LA County. I am excited to work with Metro as we lead the way both nationally and globally toward reaching our sustainability goals and raise the bar ever higher in galvanizing the movement to achieve sustainable mobility.

Mayor Eric Garcetti
Board Chair



A construction worker wearing a green hard hat, safety glasses, and an orange high-visibility vest is working on a steel structure. The worker is positioned on a wooden platform, and the background shows a complex network of steel beams and columns. The lighting is bright, suggesting an outdoor or well-lit indoor construction site.

OUR PLAN trades smog for fresh air, saying “yes” to healthy neighborhoods with buses and trains and people-powered motion.

We will build new transit and partner to make safer streets, using resources responsibly to create access to opportunity and prosperity, for each of us, our communities and our world.



BECAUSE WE SEE A BETTER LA for everybody.
With every trip, every project, every choice, we find
our way to making a positive difference.

Our plan seeks to move past normal—a congested
and unsustainable LA County—and take the bold
steps necessary to move us forward.





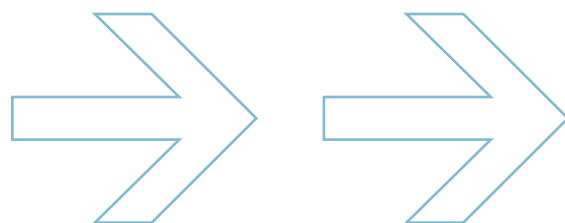
When Metro first undertook the development of this plan, the world was a different place. Amidst the challenges presented by COVID-19, our commitment to sustainability does not waver. The role of this plan remains paramount as we advance toward recovery and a more resilient future.

Sustainability is more relevant than ever and continues to be a core value at Metro. It is a steadfast pillar of our transportation system and woven into the fabric of everything we build and do. In addition to offering LA more sustainable transportation choices, Metro has made substantial operational improvements over the last seven years. We have cut water consumption by 34% and increased our landfill diversion rate to 39%. Sustainability is now the expectation, and this moment demands that we proceed with bolder endeavors. We refuse to stop moving.

Moving Beyond Sustainability is our call to action. We are creating sustainable transportation solutions in LA County to advance regional prosperity and equity. This plan does more than set ambitious goals – we are extending our hand to all Angelenos to help us transcend the conventional and the expected. Together, we will do more than what is merely sustainable – we will leverage the transportation system so we can be more innovative, sustainable and increase access to opportunity for everyone.

We hope you will join the movement to make this vision a reality.

Cris B. Liban
Chief Sustainability Officer





Metro Division 15
Operations and Maintenance Facility

What's Inside

Introduction	2
CEO Message	6
Board Chair Message	8
Chief Sustainability Officer Message	10
1. What Lies “Beyond”	14
1.1 Sustainability at Metro	14
1.2 Sustainability Commitment	16
1.3 Equity and Inclusion	18
1.4 Environmental Compliance	19
1.5 Key Accomplishments and Milestones	20
1.6 Board Motions and Guidance Documents	22
2. Committed to Sustainability	24
2.1 Sustainability Leadership at Metro	24
2.2 Internal Shared Governance	24
2.3 External Stakeholders	24
2.4 Implementing <i>Moving Beyond Sustainability</i>	25
3. Approach, Categories and Commitments	26
3.1 Methodology	26
3.2 How to Read the Plan	26
3.3 Category Targets	28
3.4 Water Quality and Conservation	30
3.5 Solid Waste	38
3.6 Materials, Construction and Operations	46
3.7 Energy Resource Management	56
3.8 Emissions and Pollution Control	64
3.9 Resilience and Climate Adaptation	74
3.10 Economic and Workforce Development	84
3.11 Connecting Transit and Community	92
4. How We'll Get There	98
4.1 How this Plan will be Used	100
4.2 How to Measure Success	101
4.3 Outreach and Communication	101
5. A Precedent-Setting Undertaking	102
Appendix	106
Acronyms/Abbreviations	106
Categories at a Glance	107
Acknowledgments	111

WHAT LIES “BEYOND”

1.1 Sustainability at Metro

The Los Angeles County Metropolitan Transportation Authority’s (Metro) mission is to provide a world-class transportation system that enhances the quality of life for all who live, work and play within Los Angeles (LA) County. To fulfill that mission, Metro must be sustainable. Our definition of sustainability is holistic – accounting for environmental, social and economic considerations in our decision making and operations, while also prioritizing community resilience and equity. Our day-to-day operations and upcoming service lines inherently advance sustainability as we take cars off the road and get Angelenos onto transit, but we are not stopping there. Our system accelerates environmental benefits in the region by reducing far more greenhouse gas (GHG) emissions than we generate, consistent with our 2019 *Climate Action and Adaptation Plan (CAAP)* goals of becoming carbon neutral and displacing over 780,000 MTCO₂e by 2050. Our work moves beyond transportation as we increase access to opportunity, reduce disparities, foster vibrant communities, improve public health, drive economic development and improve the quality of life for all.

Moving Beyond Sustainability (MBS) is the manifestation of this commitment and builds on over a decade of sustainability policies, plans, initiatives and reporting by Metro leadership and staff, including the foundational 2008 *Metro Sustainability Implementation Plan (MSIP)*. *MBS* outlines a comprehensive sustainability strategy for the next 10 years – and beyond. The plan combines the concerted efforts of our Environmental Compliance & Sustainability Department (ECSD) and Countywide Planning & Development Department (Planning) and integrates input and guidance from internal and external stakeholders. To prepare the plan, we facilitated workshops involving community members, subject matter experts and Metro’s Sustainability Council. We also gathered insight from Metro staff across several departments to discuss how current programs and goals could be integrated into our strategies.

MBS is Metro’s most comprehensive sustainability planning document to date and sets goals, targets, strategies and actions that align with and emanate from other key Metro guidance documents, including: *Vision 2028*, *Long Range Transportation Plan (LRTP)*, *Equity Platform Framework* and our *Climate Action and Adaptation Plan*. It is also designed to align with and support parallel efforts and plans underway at the City of Los Angeles and LA County, including *LA’s Green New Deal* and *Our County*.

As outlined in the *Vision 2028 Strategic Plan*, Metro’s visionary outcome is to double the share of transportation modes other than solo driving. The plan details five goals:

- 1 Provide high-quality mobility options that enable people to spend less time traveling
- 2 Deliver outstanding trip experiences for all users of the transportation system
- 3 Enhance communities and lives through mobility and access to opportunity
- 4 Transform LA County through regional collaboration and national leadership
- 5 Provide responsive, accountable, and trustworthy governance within the Metro organization

MBS supports the achievement of these goals and performance outcomes that are core to Metro’s mission by outlining a comprehensive sustainability strategy for the next decade. *MBS* supports achieving a customer-focused transformative future of mobility through comprehensive sustainability strategies.

Metro’s *LRTP* outlines how Metro’s planned investments will deliver the Strategic Plan vision of increasing transit and other mode shares over the next 30 years by focusing on the following priority areas:

- > Better Transit
- > Less Congestion
- > Complete Streets
- > Access to Opportunity

The *LRTP* addresses how commitment to these priorities will help LA County meet its current and future challenges, including: Regional Growth; Changing Mobility Needs and Preferences; Technological Change; Inequitable Access; and Adapting to a Changing Environment

Through these plans and policies, Metro is addressing its priorities and challenges as a compelling opportunity to create a more sustainable and more equitable future. *MBS* supports the *LRTP* through the cross-cutting theme of equity and inclusion and lays out specific strategies and actions for resilience and climate adaptation.

We're guided by our *Strategic Plan* goals.

 *Vision 2028 Strategic Plan*

We're creating

① *Faster Travel Options* ② *Better Trips* ③ *Thriving Communities*

Better Transit

Providing more transit options with improved quality and service

Transit Projects

Bus Improvements

New Mobility Options

Less Congestion

Managing the transportation system to reduce the amount of time people spend in traffic

Roadway Improvements

Congestion Management

Goods Movement

Complete Streets

Making streets and sidewalks safe and convenient for everyone, to support healthy neighborhoods

Bike and Pedestrian Projects

Local Street Improvements

Station and Stop Access Enhancements

Access to Opportunity

Investing in communities to expand access to jobs, housing and mobility options

Workforce Initiatives

Support for Local Businesses





Transit Oriented Communities

 *Long Range Transportation Plan*

We're committed to

④ *Leadership* ⑤ *Accountability*

 Collaboration  Continual Improvement

 Customer Focus  Innovation  Inspired and Inclusive Workforce  Safety

 *Customer Experience Plan*  *COVID-19 Recovery Plan*

We're intentionally focused on *eliminating racial and socioeconomic disparities* and *advancing sustainable practices* in everything we do.

 Equity  Sustainability

 *Equity Plan*  *Moving Beyond Sustainability Plan*

REDEFINING SUSTAINABILITY

VISION

Create an organizational culture and workforce that continually integrates the principles of sustainability into all aspects of decision-making and execution to enhance communities and lives through mobility and access to opportunity.

1.2 Sustainability Commitment

Moving Beyond Sustainability serves both as a reaffirmation of our more than a decade-long commitment to sustainability and as a redefinition of what sustainability means at Metro. We remain aligned with the Brundtland Commission's definition of sustainable development; as we plan, design, build, operate and maintain transportation infrastructure, our charge is to

meet present needs without compromising the ability of future generations to meet their own needs. Our approach is holistic: it looks beyond core transit, planning, construction and operations. We have amended our Sustainability Vision Statement and our Guiding Principles in ways that redefine and reaffirm our commitment to sustainability.

Guiding Principles

- 1** Implement sustainable practices and initiatives that advance and enhance the goals of Metro's *Vision 2028 Strategic Plan*.
- 2** Align sustainability projects and initiatives to support Metro's *Long Range Transportation Plan*.
- 3** Monitor key performance metrics to track and report the success of our sustainability strategies and actions.
- 4** Achieve our sustainability goals through transparent and authentic engagement with our stakeholders and community members.
- 5** Foster a culture of sustainability at Metro through staff education, workforce development and increased capacity.
- 6** Encourage innovation in strategic planning and sustainable practice through adaptation and resilience.
- 7** Strengthen sustainability efforts through leadership and collaboration with regional partners and agencies.



1.3 Equity and Inclusion

To move beyond sustainability, equity must be part of the foundation of Metro’s decision-making, planning and operations. Metro is committed to eliminating areas of inequity, discrimination or implicit bias within our policies, procedures and practices.

Metro recognizes that issues related to equity and inclusion must be addressed both internally and externally, in how we authentically engage with our riders and the communities we serve. In February 2018, Metro adopted the *Equity Platform Framework* which is comprised of four pillars:

- > Define and Measure: define equity and develop performance metrics that allow us to determine whether equity, as defined, is being meaningfully achieved as part of Metro’s actions.
- > Listen and Learn: establish the crucial connection and communication between Metro and the larger LA County community in carrying out and determining Metro’s actions.
- > Focus and Deliver: implement actions and programs that achieve measurable, equitable outcomes and carry out *Equity Platform Framework* objectives and principles.
- > Train and Grow: recognize that significant commitments will be needed from within the Metro organization to understand, embrace and maximize equity advancements.

The importance of equity and inclusion in sustainability planning for transit agencies is also reinforced by the 2018 American Public Transportation Association (APTA) guidance document *Social and Economic Sustainability for Transit Agencies (APTA SUDS-CC-RP-005-18)*, which augments earlier APTA guidance on sustainability.

Metro understands equity to be both an outcome and a process to address racial, socio-economic and gender disparities, to ensure fair and just access – with respect to where you begin and your capacity to improve from that starting point – to opportunities, including jobs, housing, education, mobility options and healthier communities. It is achieved when one’s outcomes in life are not predetermined, in a statistical or experiential sense, on their racial, economic or social identities. It requires community informed and

needs-based provision, implementation and impact of services, programs and policies that reduce and ultimately prevent disparities.

Some equity issues, primarily those related to structural and procedural concerns, are agency-wide and systemic. Metro recognizes that an enterprise-wide focus on these issues is critical. Within Metro’s sphere of influence, we are actively pursuing equity in both processes and outcomes, exemplified by the hiring of Metro’s first Executive Officer of Equity and Race. Metro’s multifaceted approach to advancing equity internally and in the community is evidenced through many of our commitments, such as the Women & Girls Governing Council, which looks to find opportunities to remove barriers to success and expand opportunities for women at, within, and on Metro, and the On the Move Riders Program which helps show older adults how to get around on the Metro system. Internally, we continue efforts to create career development pathways for all employees.

The distribution of equity is often influenced by geographical factors, which we are addressing through the Equity Focus Communities (EFCs) Screening Tool. EFCs are those communities most heavily impacted by gaps in inequity throughout the County. The transportation performance of EFCs can be evaluated by setting a threshold of census tracts in the County, including:

- > More than 40% of the census tracts having low-income households over the County average; and
- > Either more than 80% of the census tracts having non-white populations over the County average; or
- > More than 10% of the census tracts having zero-car households over the County average.¹

In developing this plan, equity is understood to be an inherently crosscutting topic that touches on many aspects of the agency’s sustainability activities. Strategies and actions related to equity are infused into *MBS* and it’s addressed specifically when most relevant or appropriate. The chapters of this plan that have the strongest relationship to equity and inclusion are Resilience and Climate Adaptation, Livable Neighborhoods and Economic and Workforce Development.

1. For more information on how Metro defines Equity Focus Communities, see the Board report regarding the *L RTP* update. <https://boardagendas.metro.net/board-report/2018-0819/>

1.4 Environmental Compliance

As stated in its 2009 Environmental Policy, Metro is committed to planning and constructing projects, operating and maintaining facilities and vehicles, and procuring products and services consistent with State and federal laws and regulations and in a manner that protects human health and the environment but not neglecting the efficient delivery of quality public transit services within our financial ability. Environmental compliance is a critical foundation of sustainability at Metro.

In coordination with internal and external stakeholders, ECSD oversees the agency's environmental compliance responsibilities and conformance to environmental laws, regulations and standards for operations and the capital construction program.

ECSD works across departments to ensure Metro meets its regulatory requirements for environmental compliance as we plan and construct projects, operate and maintain facilities and vehicles and procure products and services. The environmental compliance areas include, but are not limited to:

- > Water pollution control
- > Hazardous materials

- > Noise and vibration control
- > Air quality
- > CEQA/NEPA
- > Archeological, paleontological and tribal cultural resources
- > Waste management
- > Biological resources
- > Hydrology/water quality

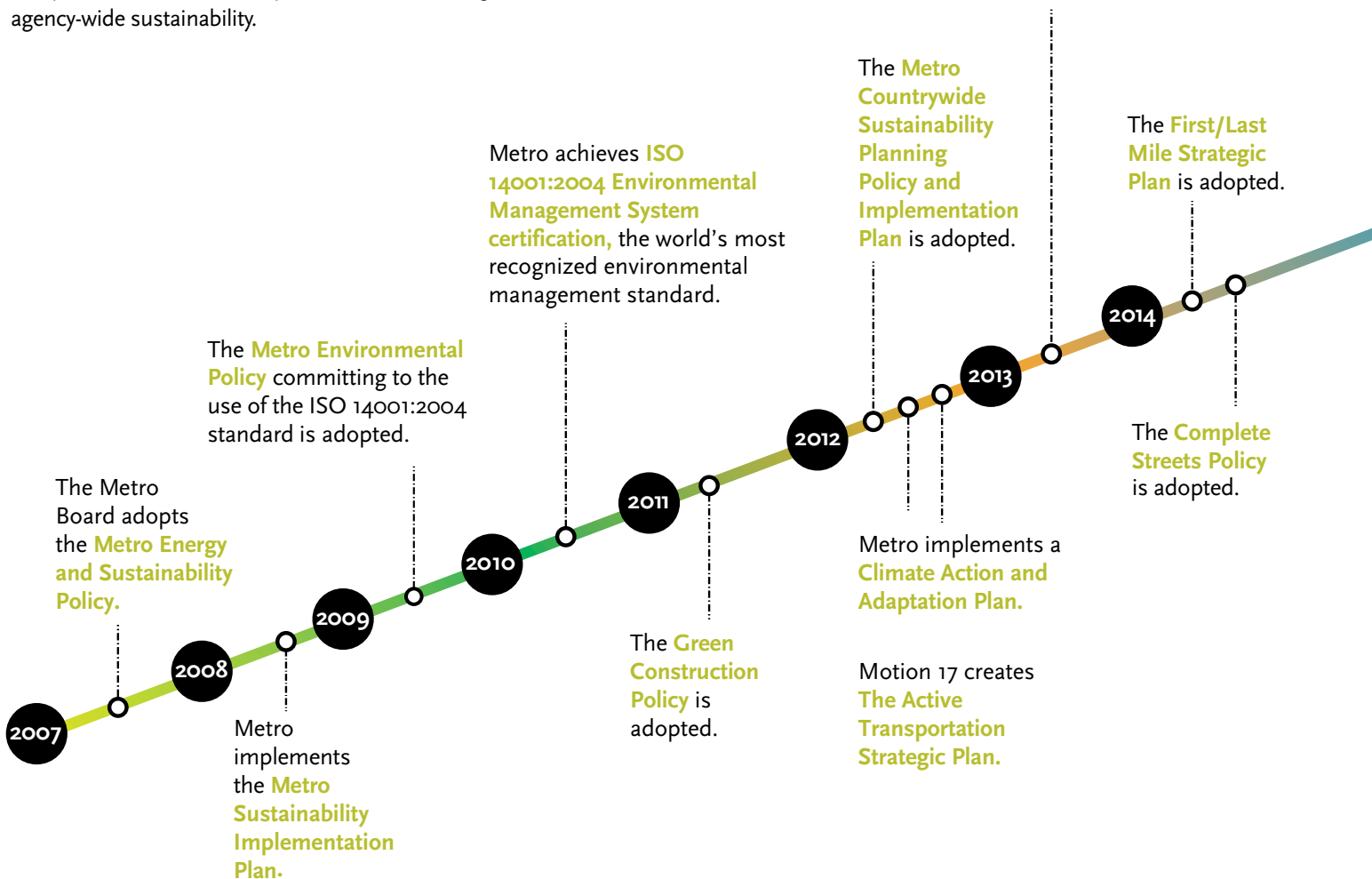
Metro's environmental compliance program is advanced through the implementation and continual improvement of the Environmental Management System (EMS) at our operating facilities and construction projects. The EMS creates a framework for implementing best practices that help ensure compliance with federal, state and local environmental regulations, pollution prevention and sustainability goals and maintaining the International Organization for Standardization (ISO) 14001:2015 certification by conducting both internal and external third-party audits. Using the ISO 14001:2015 framework of Plan-Do-Check-Act, the EMS is the primary tool in applying sustainable principles and practices in planning, construction, operations and procurement and facilitates continual improvement of Metro's environmental performance.

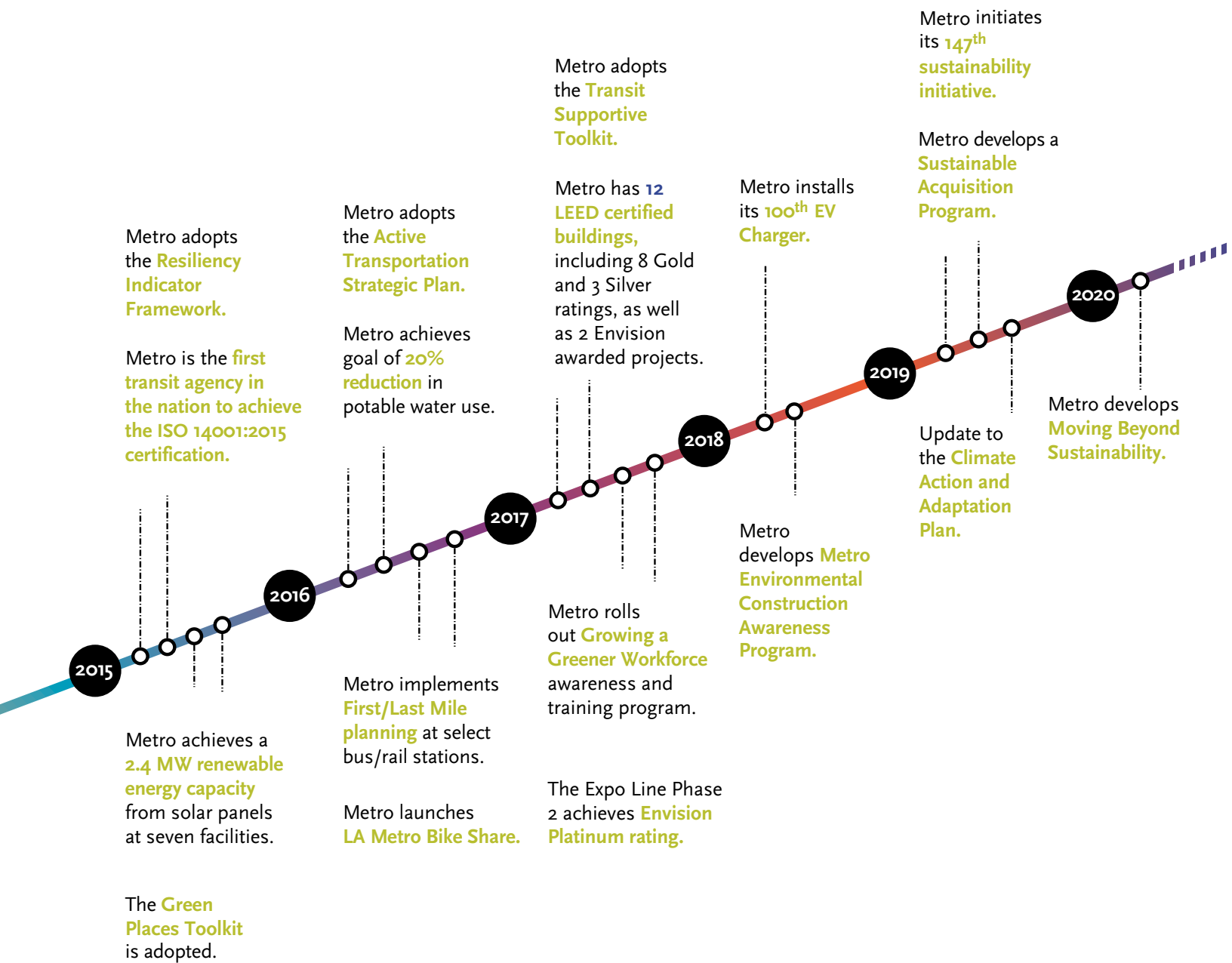


1.5 Key Accomplishments and Milestones

For over a decade, Metro has developed plans and established initiatives to integrate sustainability principles and practices into agency operations. There are three major milestones that led to several substantive initiatives and accomplishments over Metro's sustainability program development. In 2007, Metro adopted the *Energy and Sustainability Policy* to control energy consumption through energy efficiency and conservation measures. This was followed by Metro's *Sustainability Implementation Plan*, the agency's first sustainability strategic plan. In 2012, Metro published the *Countywide Sustainability Planning Policy and Implementation Plan* that complemented Metro's efforts to improve air quality, increase transportation choices and facilitate greater coordination and collaboration across transportation modes, planning disciplines and government agencies. These policies and plans laid the foundation of sustainability at Metro. With MBS, we are aligning over a decade of initiatives, efforts and policies into a cohesive plan, further advancing our vision for agency-wide sustainability.

Metro is the first transit agency in the nation to install and operate **electric vehicle (EV) chargers**.





1.6 Board Motions and Guidance Documents

The following documents provide key guidance on the overall structure and role of *MBS* within the agency:

Metro’s *Vision 2028 Strategic Plan* outlines an innovative approach for transforming mobility in LA County over the next decade. This vision influences *MBS* by highlighting the importance and urgency Metro places on shaping a sustainable future for all Angelenos.

Metro’s *Long Range Transportation Plan* outlines what the agency is doing currently and must do to lead the transportation system improvements necessary to bring about the economic, mobility, safety, environmental and quality of life benefits needed in LA County. These current challenges present great opportunities for Metro to take bold action and help achieve our vision for sustainability in the region.

Metro’s *Equity Platform Framework* and Board Motion 18: Defining EFCs is a recognition that there exists vast disparity among neighborhoods and individuals in LA County in their ability to see and seize opportunity – be it jobs, housing, education, health, safety or other essential facets of thriving in vibrant, diverse communities. The multi-faceted equity platform provides a basis for Metro to actively lead and partner in addressing and overcoming those disparities. Board Motion 18 directs Metro to adopt EFCs as a working definition, evaluate EFC scenarios in planning efforts and continue to refine the definition and applicability of EFCs.

Board Motion 57, passed in 2016, directs the Chief Executive Officer (CEO) to update the Board on Metro’s environmental and sustainability efforts and undertake a range of projects. Responding to Motion 57 enabled Metro to strengthen and expand our sustainability policies, plans and implementation efforts, as well as to increase coordination with peer agencies trying to address sustainability mandates. *MBS* addresses all the previous environmental and sustainability Board Motions and completes the full response to Motion 57.

Green bonds are financial instruments used by an issuer where the proceeds will be applied towards climate change impact reduction and/or environmental sustainability purposes. The issuer is expected to report on the actual use of proceeds to assure investors that these purposes have been met. To help support growth in the green bonds market, the Climate Bonds Initiative was created to increase transparency in this market and provide a form of calibration for securities labeled as

“green bonds.” Metro has implemented a program to issue green bonds, to help support the development of a municipal green bonds capital marketplace, where investors who share in valuing sustainability can reward such efforts with their investment, eventually resulting in a reduced cost of capital for such projects.

Metro’s Sustainability Program and initiatives are shaped and guided by California state regulatory requirements. Some of the more notable legislations include:

- > AB 32: California Global Warming Solutions Act (2006)
- > SB 375: The Sustainable Communities and Climate Protection Act (2008)
- > SB 32: Greenhouse Gas Emission Reduction Target for 2030 (2016)
- > AB 2800: California’s Climate Safe Infrastructure Working Group (2016)
- > Governor’s Executive Order B-55-18
- > SB 100: California Renewables Portfolio Standard Program (2018)
- > AB 802: California Energy (Benchmarking) Disclosure Law (2018)
- > SB 743: Transportation Impacts (2013)
- > SB 375: Transportation Planning: Travel Demand Models: Sustainable Communities Strategy (2008)



Awards

- 2020 Municipal Green Building Conference & Expo: **Award of Recognition – Envision Platinum Westside Subway Extension, Section 1**
- 2020 Municipal Green Building Conference & Expo: **Award of Recognition – LEED Gold C1078 Building 61S**
- 2020 Municipal Green Building Conference & Expo: **Award of Recognition – LEED Silver Division 16**
- 2019 ASCE: **Outstanding Sustainability Engineering Project: Division 4 Permeable Concrete Pilot Project**
- 2019 LA Sanitation One Water LA: **Partner of the Year**
- 2019 U.S. Green Building Council – Los Angeles: **Partner Award for Growing a Greener Workforce**
- 2018 APA Sustainable Communities Division (SCD): **Excellence in Sustainability Award, Leadership in Sustainability Award**
- 2018 APA Sustainable Communities Division (SCD): **Excellence in Sustainability Award, Sustainable Transportation Project: Metro Expo Line Phase 2**
- 2018 Breathe CA: **Community Impact Award**
- 2018 CA Sustainability Coalition/County of LA Department of Public Works: **Outstanding Sustainability Award**
- 2018 LADWP One Water Award: **Development of One Water LA 2040 Plan and Collaborating to advance more efficient, cost-effective and sustainable water management**
- 2018 LA Conservancy: **Preservation Award – Lankershim Depot**
- 2017 Municipal Green Building Conference & Expo: **Award of Recognition – LEED Gold Division 13**
- 2017 U.S. Green Building Council – Los Angeles: **Sustainable Innovation Award – Division 14**
- 2016 LADWP Sustainability Award: **2nd Place – Demand Curtailment**
- 2016 Municipal Green Building Conference & Expo: **Award of Recognition – LEED Silver Division 7**
- 2016 U.S. Green Building Council – Los Angeles: **Sustainable Innovation Award Water Efficiency Honor – Division 13**
- 2015 AQMD: **Clean Air Award – Model Community Achievement**
- 2015 California Energy Efficiency Industry Council: **Energy Champion Award for Advancing Energy Efficiency**
- 2015 Municipal Green Building Conference & Expo: **Award of Recognition – LEED Silver Division 10**
- 2015 National APA Best Practice Winner: **First/Last Mile Strategic Plan**
- 2015 National Complete Streets Coalition Recognition: **Metro Complete Streets Policy**
- 2014 National Complete Streets Coalition: **Best Complete Streets Policy**
- 2013 Municipal Green Building Conference & Expo: **Award of Recognition**

COMMITTED TO SUSTAINABILITY

2.1 Sustainability Leadership at Metro

At Metro, we believe that sustainability is about people – and ultimately through our efforts we strive to create positive impacts and benefits for the people we serve. This principle is reflected in Metro’s sustainability governance, which is shared across internal departments and supported by external stakeholders and riders. Programs are driven and goals are achieved through consistent management efforts and reported to Metro’s Board of Directors. The recent hiring of the Chief Sustainability Officer (CSO) reflects Metro’s commitment to sustainability in the new decade. The CSO develops, executes and maintains the activities of Metro sustainability initiatives and plans.

Metro ensures its commitment to meeting and monitoring sustainability and environmental compliance through the utilization of its EMS ISO 14001 framework adopted by Metro’s Board in 2009 as part of the *Environmental Policy*. The ISO framework ensures that Metro leadership is driving continual environmental improvement through planning, support and operation, performance evaluation and improvement plans.

2.2 Internal Shared Governance

Sustainability is everyone’s responsibility at the agency. While individual employees or select departments may be tasked with developing, implementing and sustaining programs, all efforts are built on an evolved understanding of sustainability principles and a cohesive, forward-thinking approach that involves all stakeholders.

Sustainability planning and implementation are primarily led by two departments at Metro: ECSD and Planning. These two departments have largely shared the responsibility of integrating sustainability into agency-wide operations and culture, whether it be through developing new specifications for forthcoming projects or by empowering employees through workforce development and environmental education.

MBS closely aligns the planning, reporting and program implementation efforts of ECSD and Planning. Using this Plan as a roadmap, the CSO will help synchronize ECSD’s environmental compliance and impact mitigation efforts with Planning’s work to incorporate sustainability into Metro’s planning functions.

This alignment and coordination will help implement the plan’s holistic vision for sustainability at Metro and across LA County.

Environmental Compliance & Sustainability Department

ECSD spearheads Metro’s sustainability program and is responsible for the agency’s sustainability initiatives. The department is responsible for reducing the environmental, social and financial impacts resulting from Metro’s transportation system and services. ECSD takes an innovative approach to fulfilling these core responsibilities. The department has effectively integrated energy conservation, resource management, alternative financing, climate change mitigation and adaptation, and overarching sustainability into Metro’s construction and operational practices. ECSD will continue to act as the lead on climate action and sustainability initiatives at Metro.

Countywide Planning & Development Department

Countywide Planning & Development plans and programs (funds) countywide transportation projects designed to improve mobility in significant ways. As part of that, Planning is responsible for integrating sustainability activities into the agency’s planning functions and coordinating with other public agencies and external stakeholders. The work includes a broad range of coordinating activities that align common goals, such as environmental stewardship, improving the quality of life in communities and increasing mobility options for the sake of sustainability. Planning strives to foster collaboration and to create more sustainable communities throughout the region.

2.3 External Stakeholders

Recognizing the importance of engaging external stakeholders in our planning and implementation processes, Metro has developed formal structures to communicate with external groups whose input informs the activities of the CSO and internal sustainability governance.

Policy Advisory Council

The Metro Policy Advisory Council was established in early 2017 to review, comment and provide input on the draft Measure M Master Guidelines, the *LRTP* and other work plans and policy areas that the Metro Board may request. The council is made up of transportation consumers, transportation providers and representatives from the various communities served by Metro.

SUSTAINABILITY ROLES AND RESPONSIBILITIES THROUGHOUT METRO

POSITION	SUSTAINABILITY FOCUS AREA
Metro Board	Approve policies and directives to support sustainability at Metro.
Chief Executive Officer	Implements Board directives, provides leadership and holds departments accountable for meeting Sustainability Plan targets.
Chief Sustainability Officer	Oversees the agency's sustainability and environmental compliance efforts, including tracking metrics, updating the plan and participating in regional sustainability, climate and resilience efforts.
Other Chiefs and Department Heads	Implements sustainability actions in areas of their control and takes responsibility to identify areas of continual improvement.
Environmental Compliance & Sustainability Department	Oversees environmental compliance and reduction of environmental liabilities during planning, design, procurement, construction, operation and maintenance of the agency's facilities, services and products. Responsible for implementing sustainable operations throughout Metro.
Countywide Planning & Development Department	Responsible for incorporating sustainability activities into Metro's planning activities and coordinates and works with ECSD in external partner engagements.

Sustainability Council

In 2016, Metro formed the Sustainability Council in response to Motion 57.² The council is composed of up to 30 voting members representing a range of sectors and community stakeholder groups³ with expertise in sustainability and transportation. The Sustainability Council is an advisory body that provides Metro with input on direction and feasibility of policies, operations, construction and maintenance processes related to sustainability. The council is staffed and supported by ECSD, Planning, V/CM and Operations. Bi-monthly meetings cover updates on Metro sustainability activities and new regulations, discussion of opportunities for collaboration and actions on key agenda items. The public is welcome to all meetings.

Community-based Organizations (CBOs)

Metro is developing an approach to work more frequently and effectively with CBOs on stakeholder outreach and engagement. Additionally, ECSD is partnering with WIN-LA to pilot new language in select procurement contracts that recommend contractors work with CBOs to help employ

low-income and/or previously-homeless populations. CBOs are valuable partners in achieving our understanding of the lived experience of communities served by Metro. The insight from community-based outreach can inform future technical assistance or grant support efforts, as well as identify key opportunities in the design of new alignments and stations. CBO partnerships will be emphasized in areas considered to be EFCs.

2.4 Implementing *Moving Beyond Sustainability*

Under the leadership of the CSO, ECSD and Planning staff will establish the annual program and budget for implementing *Moving Beyond Sustainability*. Projects will be prioritized annually using the goals, targets, strategies and actions outlined in *MBS*. Justification for those projects will be submitted to the Office of Management & Budget (OMB). The CSO will work with OMB to allocate funding. See chapter four for information regarding the implementation of *MBS*.

2. Adopted by the Metro Board of directors, Motion 57: *Environmental & Sustainability Efforts to Further Metro's Goals to Reduce Emissions, Clean the Air & Improve Urban Areas* prioritizes sustainability reporting and efforts in four main areas: climate change and resiliency, energy, solid waste and recycling and water. http://libraryarchives.metro.net/DB_Attachments/181018_Motion_57.pdf

3. <https://www.metro.net/projects/sustainability-council/>

APPROACH, CATEGORIES AND COMMITMENTS

3.1 Methodology

Moving Beyond Sustainability is guided by the APTA guidelines for sustainability which are comprised of the following Recommended Practices:

- > *Transit Sustainability Guidelines (APTA SUDS-CC-RP-004-11)*
- > *Social and Economic Sustainability for Transit Agencies (APTA SUDS-CC-RP-005-18)*
- > *Quantifying Greenhouse Gas Emissions from Transit (APTA SUDS-CC-RP-001-09)*
- > *Quantifying and Reporting Transit Sustainability Metrics (APTA SUDS-CC-RP-03-12)*

Projections

Quantitative targets identified in *MBS* were created using a detailed, data-driven analysis of infrastructure growth and a

calculated 2030 Business as Usual (BAU) scenario. The 2030 BAU scenario was developed through a review of historical organizational practices, utility consumption, waste and emissions generation and planned agency growth. The BAU accounts for planned construction and improvements.

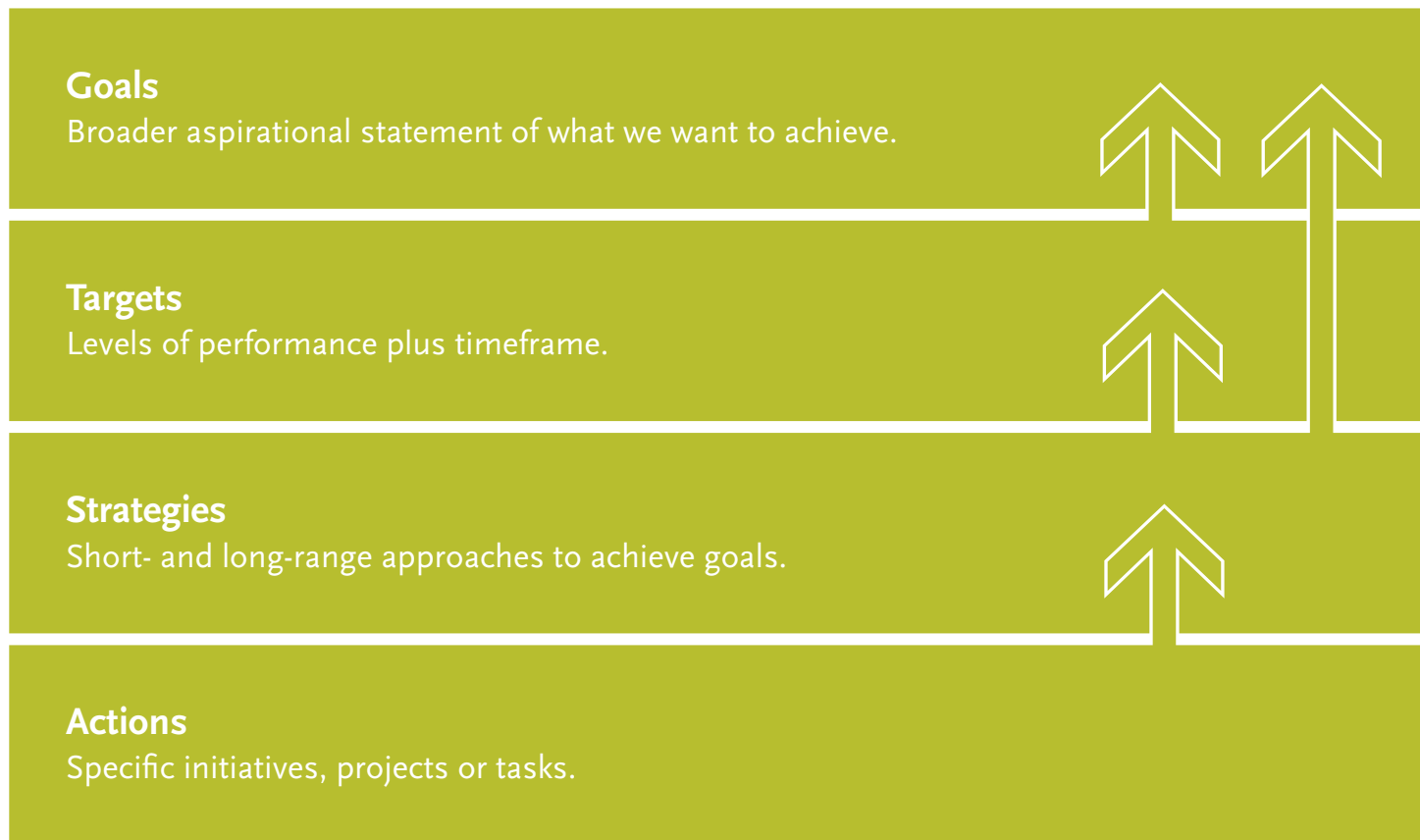
MBS will be updated every five years with formal progress reports every two years, and annual performance updates through Metro's Sustainability dashboard (sustainabilityreporting.metro.net).

3.2 How to Read the Plan

Moving Beyond Sustainability uses a hierarchical framework of goals, targets, strategies and actions to organize the measures, programs and projects necessary to advance Metro's mission and vision. As a note to the reader, abbreviations and acronyms are defined in the appendix.



HIERARCHICAL FRAMEWORK CHART



Goals

Broader aspirational statement of what we want to achieve.

Targets

Levels of performance plus timeframe.

Strategies

Short- and long-range approaches to achieve goals.

Actions

Specific initiatives, projects or tasks.

Goals

Goals are outcome statements that further articulate the vision statement. They define what Metro is trying to accomplish, both programmatically and organizationally.

Targets

Targets are precise, time-bound and quantifiable measures that provide benchmarks to measure progress toward the achievement of the goals. Targets are measurable, stated in terms of results and have a 10-year or earlier completion date.

Strategies and Actions

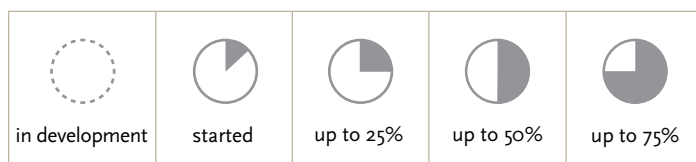
The third level of the plan’s hierarchy outlines the specific strategies and actions directly supporting the achievement of category targets. Strategies and corresponding actions represent planned initiatives or programs currently being implemented.

The plan is organized into the following seven (7) program categories (see next page).

The Category Tables are comprised of strategies, actions, a status indicator and designation of strategy responsibility: **Lead Department (Bold)** and Support Department.

The status indicators are designated as follows:

KEY: COMPLETION OF STATUS



3.3 Category Targets

Water Quality and Conservation



- 1 Reduce potable water use by **22%** from the 2030 Business as Usual scenario.
- 2 Increase runoff infiltration and capture capacity for stormwater by **15%** from 2020 baseline levels.

Solid Waste



- 1 Reduce annual operational solid waste disposal **24%** from 2030 Business as Usual scenario.
- 2 Achieve **50%** landfill diversion rate for operational waste.
- 3 Achieve **85%** construction landfill diversion rate.

Emissions and Pollution Control



- 1 Displace **903,000 MTCO₂e** annually.
- 2 Reduce total GHG emissions by **79%** from 2017 baseline.⁴
- 3 Reduce total nitrogen oxides (NOx) emissions **54%** from 2018 baseline.
- 4 Reduce total particulate matter (PM) emissions **62%** from 2018 baseline.

Resilience and Climate Adaptation



- 1 Identify all acute shocks or stressors for critical and/or vulnerable areas at or near Metro infrastructure by 2025.
- 2 Implement the flexible adaptation pathways concept to incorporate climate adaptation into planning, procurement, asset management and operations by 2025.
- 3 Prioritize improvements to locations, facilities, infrastructure, equipment and operations to reduce risk.

4. As published in its 2019 CAAP, Metro commits to reducing our greenhouse gas emissions by 79% relative to 2017 levels by 2030 and 100% (i.e., zero emissions) by 2050.

Materials, Construction and Operations



- 1 Achieve **LEED Silver** certification for all new facilities over 10,000 square feet, and achieve Envision certification where LEED is not applicable.
- 2 Design and build **100%** of capital projects to CALGreen Tier 2 standards.
- 3 Complete **Sustainable Acquisition Program training/implementation** and develop **2030 program targets** for annual sustainable acquisition spend by 2022.

Energy Resource Management



- 1 Reduce energy consumption by **17%** at facilities from the 2030 Business as Usual scenario.
- 2 Increase onsite renewable energy generation to **7.5 MW**.

Economic and Workforce Development



- 1 Review job classifications on a regular basis and eliminate obsolete requirements that create barriers to career advancement.
- 2 Recruit employees from diverse sources, including vocational schools, community colleges, groups supporting formerly incarcerated persons and organizations supporting persons with disabilities and older adults.
- 3 Achieve triennial DEOD contracting goals related to small, disadvantaged and veteran-owned businesses.

Together we can build a transportation system that is innovative, sustainable and increases access to opportunity for everyone.

WE WILL USE OUR WATER WISELY.

In Southern California, water is a precious and limited resource. So Metro is planting California native and drought-tolerant landscaping and recycling the water used for everyday operations. And we'll continue to find new ways to conserve, doing our part to be water smart.



WATER QUALITY AND CONSERVATION

GOALS

- > Optimize and manage Metro's water use.
- > Manage wastewater and stormwater constructively.

TARGETS

- 1 Reduce potable water use by **22%** from the 2030 Business as Usual scenario.
- 2 Increase runoff infiltration and capture capacity for stormwater by **15%** from 2020 baseline levels.

3.4 Overview

The state of California faces urgent challenges related to the availability of potable water. Local sources, including aquifers, across the state have not recovered from years of drought, a problem exacerbated by the anticipated impacts of climate change. Continuing the import of water from elsewhere is unsustainable in the long term. The ramifications of these two challenges will be felt, especially in Southern California.

As of 2018, 97.4% of our water consumption is potable water. More than half of Metro's water use goes toward irrigation along rail and bus alignments (55.3%) and over another quarter of our consumption goes toward operational divisions (26.6%).

Metro is actively monitoring water use and finding new ways to increase conservation efforts. We have reduced potable water use by 34% since 2013 through conservation efforts, system enhancements and efficiency upgrades aligned with Metro's *2010 Water Action Plan*. These actions supported the City of LA's goal of reducing consumption by 20% over the same timeframe. Our efforts have included bus wash system retrofits, smart irrigation controller installations, turf removal, water-efficient landscaping upgrades and irrigation restrictions.

Water reclamation and reuse will be an equally critical component of our water use strategy through 2030. We will identify and evaluate opportunities to implement capture and reuse strategies, such as reusing water discharged from dewatering activities, and nature-based, low-impact development measures, such as stormwater runoff infiltration. We expect that this intentional, responsible water consumption and resource management will contribute to community-wide

resilience. Metro also recognizes the potential to create multi-benefit projects that may serve EFCs through participation in Measure W initiatives.

TARGET 1

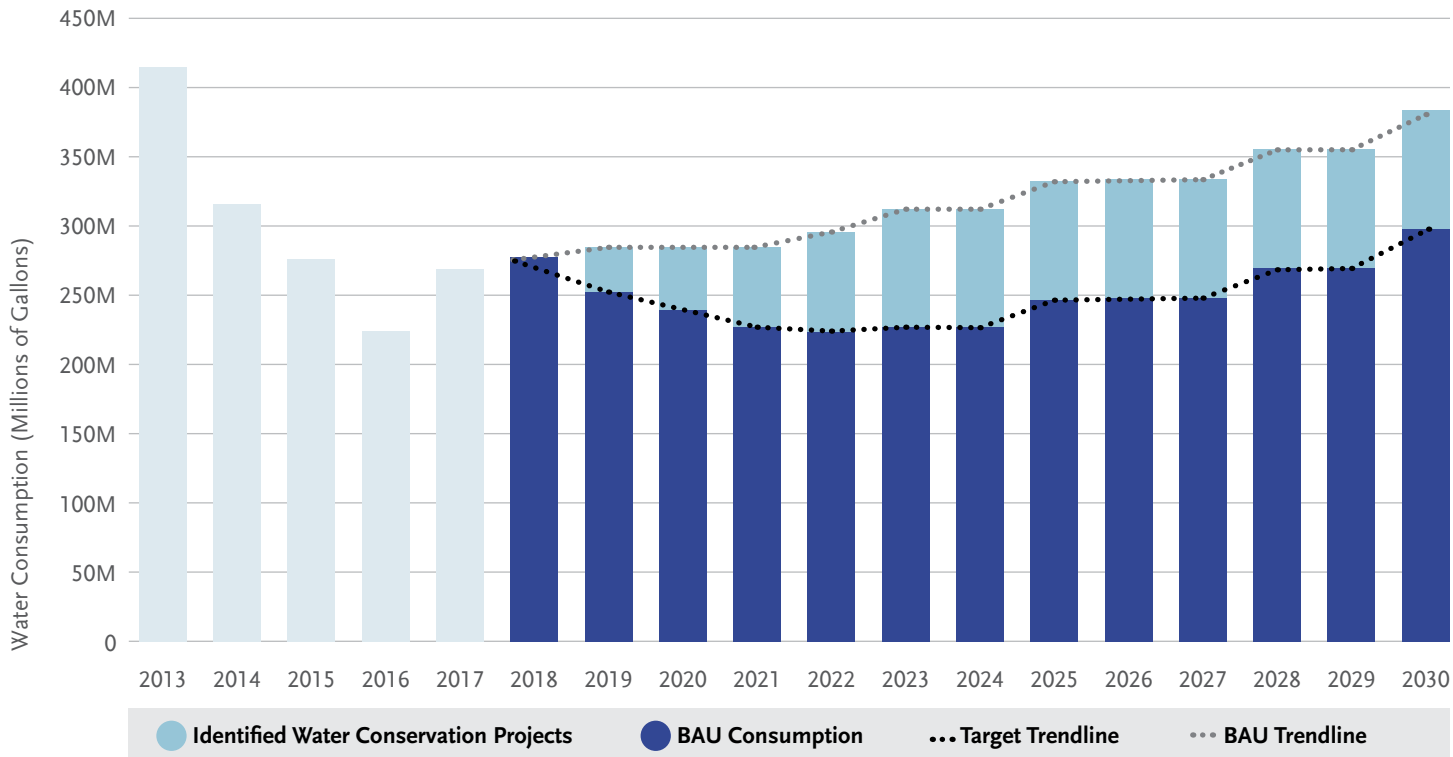
Reduce potable water use by 22% from the 2030 Business as Usual scenario.

Potable water consumption is expected to increase due to our Twenty-Eight by '28 initiative, featuring transit and facility expansion projects set to come online by 2028. In a BAU scenario, system growth is estimated to increase overall water use by 38.1% by 2030 (from 2018 levels).

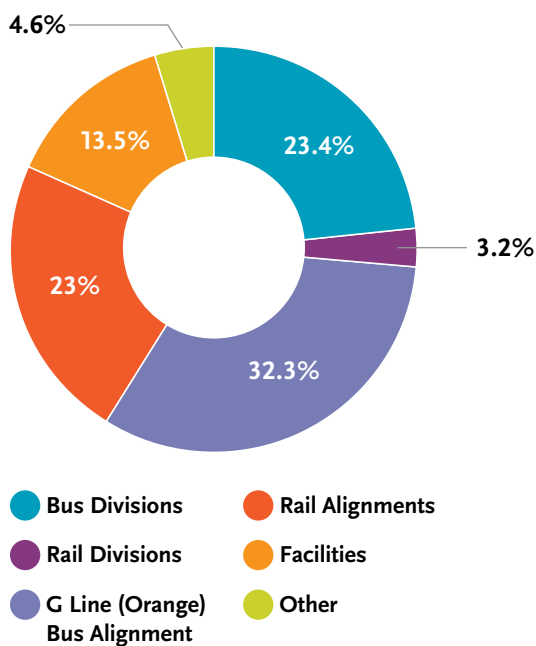
To mitigate anticipated increases in water consumption, we have identified, approved and are implementing several strategies to reduce potable water consumption, including: bus and rail car wash facility improvements, domestic fixture replacements and an upgrade to smart irrigation controllers along the G Line (Orange) alignment. Conservative estimates suggest these strategies will yield a 22% reduction in water consumption from levels in the 2030 BAU scenario.

As a responsible steward of water conservation, Metro continues to develop additional water use reduction strategies focused on technical improvements and behavioral change at Metro, while developing partnerships with key regional stakeholders to build a more resilient LA county.

WATER CONSUMPTION FORECAST (2013 – 2030)



2018 TOTAL WATER CONSUMPTION BY END USE



TARGET 2

Increase runoff infiltration and capture capacity for stormwater by 15% from 2020 baseline levels.

Metro is actively evaluating opportunities to increase runoff infiltration and capture capacity for stormwater. For example, permeable surface installations at divisions with large asphalt surface areas could reduce runoff, increasing infiltration capacity systemwide. Installations along rail alignments and highways or near current and forthcoming facilities, such as bioswales or other nature-based solutions, have the potential to increase stormwater infiltration and contribute to larger ecosystem health and restoration. Together, these efforts will produce long-term water savings as more water can safely infiltrate into soil and replenish groundwater sources and local aquifers. Such installations also have filtration features that capture and prevent pollutants from entering land and water ecosystems and harming wildlife.

What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

Low Flow Nozzle Pilot Installation for Bus Washes

Metro's pilot study at Division 15 evaluated the effect of a decreased flow rate (gallons per minute) on water use during bus washing. The nozzle modifications proved effective, reducing the average water consumption per wash cycle by 40% while maintaining bus cleanliness. Following this success, similar modifications will be made at other bus divisions, accompanied by monitoring practices to quantify water and cost savings. It is estimated that nozzle replacements systemwide will save over 20 million gallons of water per year.

G Line (Orange) Upgrades: Smart Irrigation, Recycled Water and Use Efficiency

In 2018, 32.3% of Metro's overall water consumption was used along the G Line (Orange) alignment or right-of-way. To reduce potable water consumption, multiple reduction measures were identified and implemented. Forty-one conventional irrigation controllers were replaced with smart controllers in 2018. Total water use along this alignment alone declined by 49 million gallons or by nearly 44% between 2018 and 2019. In addition, we completed installation of purple pipe recycled water between Vesper Avenue and Sepulveda Boulevard along the G Line (Orange) (which accounts for 2.6% of Metro's overall water use), with plans to install more in 2020 between Tujunga and Laurel Canyon boulevards.

Permeable Pavement and Bioretention Pilot Project

















In 2018, Metro replaced 40,000 square feet of asphalt at the Division 4 facility in Downey with permeable pavement and a landscaped bioretention area. This new installation can capture and filter more than 300,000 gallons of rainwater during a single rain event allowing this water to safely infiltrate into the ground to replenish local groundwater and aquifer systems.

Low-to-No Flow Sanitary Fixtures






Several low-flow and no-flow sanitary fixtures have been installed across Metro facilities over the last few years. Several other sanitary fixtures are set to be remodeled at various division locations through 2030, which are anticipated to save roughly 3.1 million gallons of water per year.

Intentional and responsible water consumption and resource management will contribute to community-wide resilience.

PLANNED STRATEGIES AND ACTIONS

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Identify and implement operational water conservation and efficiency projects 	1.1 Implement all identified water conservation projects.		ECSD
	1.2 Update the <i>2010 Water Action Plan</i> to outline operational water conservation, efficiency and reuse strategies through 2030 to fulfill the goals of the <i>2019 CAAP</i> and <i>MBS</i> .		ECSD
	1.3 Prioritize the new Water Action Plan strategies for phased implementation.		ECSD Operations
	1.4 Conduct pilot studies on rail wash facilities to reduce potable water use and replace existing equipment with more efficient equipment based on the pilot results.		ECSD Operations
	1.5 Develop and conduct staff training on water conservation strategies.		ECSD
Increase the use of non-potable water sources to offset potable water use 	2.1 Identify opportunities to expand water capture for reuse.		ECSD Operations
	2.2 Transition to recycled water where purple pipe is available and coordinate with local water providers to expand purple pipe access near Metro facilities.		ECSD Operations
	2.3 Determine the feasibility of including graywater and other water reuse strategies in Metro's design specifications.		ECSD Engineering
	2.4 Evaluate grant opportunities to study and implement innovative reclaimed water strategies.		ECSD Planning
	2.5 Evaluate the use/reuse of water from system dewatering activities for operations and construction.		ECSD Operations
Implement water monitoring and reporting systems 	3.1 Install smart sub-meters to improve the collection of water usage data.		ECSD Operations
	3.2 Explore the feasibility of automated data communications and leak detection systems to provide real-time water consumption information and leak alerts to facility managers.		ECSD Operations
	3.3 Install and utilize an environmental management reporting system to issue reminders of upcoming compliance deadlines, monitor trends in consumption and costs and facilitate the recognition of emerging issues.		ECSD Operations

KEY: COMPLETION OF STATUS

				
in development	started	up to 25%	up to 50%	up to 75%















STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Integrate water conservation and efficiency best practices into policies, standard operating procedures (SOPs) and specifications	4.1 Further integrate and regularly update water conservation approaches into contractor requirements to better mitigate water use impacts from construction through operations.		ECSD
	4.2 Establish and implement specifications for water reuse during dewatering activities.		ECSD Operations
	4.3 Establish a policy requiring all new construction projects to achieve 75% or greater of the available points for the Water Efficiency category of Leadership in Energy and Environmental Design (LEED) or most applicable sustainable design or construction rating system.		ECSD Engineering
	4.4 Establish and implement specifications for high-efficiency water fixtures and systems for all new construction and renovations.		ECSD Operations, Planning Engineering
	4.5 Establish and implement specifications for native, climate appropriate landscaping for all new construction and renovations.		ECSD Operations, Engineering Facilities Management Systemwide Design
	4.6 Establish procedures requiring the regular review and update of SOPs for water use that reflect best water conservation and efficiency practices.		ECSD Operations
	4.7 Evaluate state of good repair of existing equipment and conduct maintenance activities to ensure existing equipment works as designed and in an efficient manner.		ECSD Operations
	4.8 Integrate a triple bottom line analysis into cost and value assessments of all planned water efficiency measures.		ECSD V/CM
Partner with other public agencies and community groups to advance regional water goals	5.1 Establish ongoing evaluation of local partner policies, procedures, mandates, requirements and best practices to identify collaborative opportunities.		ECSD Engineering
	5.2 Collaborate with other Municipal Separate Storm Sewer System permittees for implementation of enhanced watershed management programs.		ECSD Engineering
	5.3 Work with regional partners, like the Metropolitan Water District, to maximize stormwater capture and recycled water use opportunities that support Measure W and other applicable requirements or regulations.		ECSD Operations
	5.4 Engage with external stakeholders to identify collaboration and funding opportunities that advance regional water goals.		ECSD

W4

W5

KEY: COMPLETION OF STATUS

in development	started	up to 25%	up to 50%	up to 75%

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Develop strategic resources and collaborative relationships across the agency to advance the water program and drive behavior change 	6.1 Expand partnerships with operations staff across the agency to develop and implement water initiatives and projects.		ECSD Operations
	6.2 Use the Metro Intranet and other digital media tools to communicate water program goals, initiatives and achievements internally.		ECSD Marketing and Communications
	6.3 Develop and conduct trainings, workshops and other outreach events for staff to drive water conservation and behavior change in areas of greatest impact.		ECSD Marketing and Communications Talent Development
Implement best management practices to minimize stormwater runoff and keep stormwater clean 	7.1 Characterize stormwater quality at operating division discharge locations to identify opportunities for improvement.		ECSD Operations
	7.2 Identify stormwater management opportunities and constraints for underground, at grade and above grade rail/busway stations.		ECSD Operations Engineering
	7.3 Determine the feasibility of installing drywells, treatment trenches and other best management practices at operating divisions and discharge locations in alignment with applicable regulations.		ECSD Operations Engineering
Prioritize the infiltration, capture and/or use of stormwater 	8.1 Evaluate and prioritize opportunities to retrofit existing facilities using a whole systems approach, including life-cycle, maintenance needs and potential system impacts.		ECSD Operations
	8.2 Integrate green infrastructure principles into specifications.		ECSD Operations Engineering
	8.3 Support regional water initiatives through collaborative capture/reuse projects.		ECSD Operations Engineering
Reduce pollutants in industrial wastewater 	9.1 Develop a source control pollution prevention plan focused on decreasing the volume and increasing the quality of wastewater.		ECSD Operations
	9.2 Develop a screening process for new materials based on their potential to affect discharge.		ECSD V/CM

WE WILL GENERATE LESS WASTE.

Eliminating waste starts by evaluating our choices. Metro always looks for new ways to get the most out of materials. We're working to reduce, reuse, recycle and repair as we support the movement to zero waste and a sustainable circular economy.





SOLID WASTE

GOALS

- > Reduce Metro’s waste disposal.
- > Increase diversion from landfill.

TARGETS

- 1 Reduce annual operational solid waste disposal **24%** from 2030 Business as Usual scenario.
- 2 Achieve **50%** landfill diversion rate for operational waste.
- 3 Achieve **85%** construction landfill diversion rate.

3.5 Overview

As one of the largest transportation authorities in the U.S., Metro acquires, moves, uses and disposes of thousands of tons of material each year. Disposing of this material carries operational expenses, has land-use implications and generates regional GHG emissions. Our priorities for reducing the impact of our waste are two-fold: decrease the amount of waste that is generated and divert waste from landfills.

In alignment with the City of LA and LA County, Metro is actively applying the **Integrated Waste Management Hierarchy (IWMH)**⁵ to

our operational waste. Using this hierarchy, we are prioritizing waste reduction and sustainable procurement as the first and most important steps toward managing and reducing solid waste. The IWMH is also an integral component of multiple agency-wide policies and programs, including our *Solid Waste Management Plan*, Sustainable Acquisition Program and *Construction and Demolition Debris Policy*. These efforts help us support and comply with California state legislation and CalRecycle regulations.

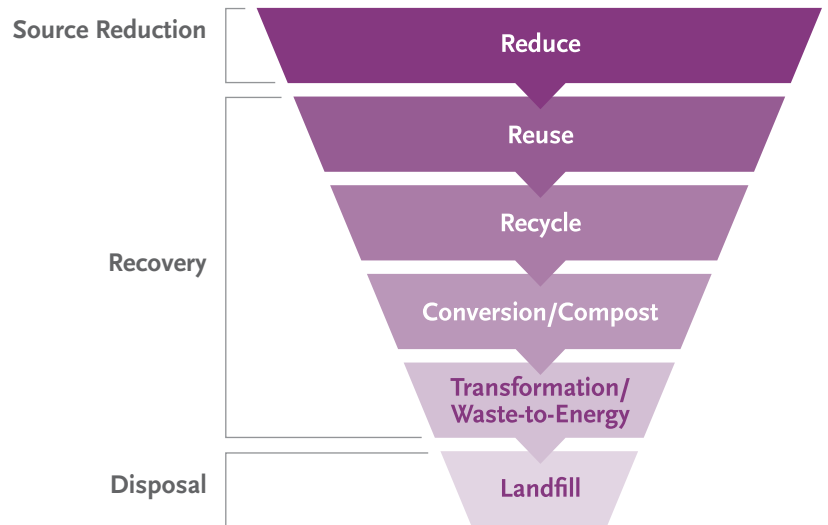
Waste reduction and diversion strategies through sustainable procurement and operational improvements will be critical to

INTEGRATED WASTE MANAGEMENT HIERARCHY

Traditional Approach:



New Approach:



5. U.S. Environmental Protection Agency. “Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy.” <https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy>

meet our 2030 operational targets. We are building on waste characterization studies and our growing Sustainable Acquisition Program to identify strategies to change existing behavioral and purchasing practices as a means to minimize both the upstream and downstream impacts of procured material. To address construction waste, we are partnering with Metro’s contractors to further develop waste management strategies that focus on material reuse and landfill diversion.

Definitions

Generation: The amount of waste that is produced before it is recycled, diverted or sent to the landfill

Disposal: The amount of waste that is sent to the landfill or treated as “trash”

Diversion: The percentage of waste that is diverted from landfill through recycling, composting, reuse or source reduction

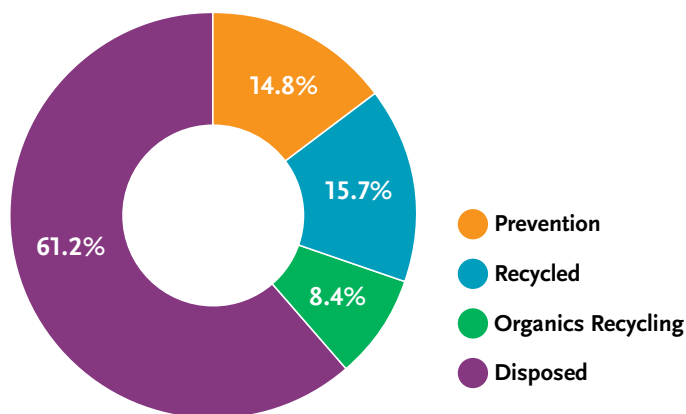
Prevention: Eliminating waste through source reduction (e.g., using paperless systems)

TARGET 1

Reduce annual operational solid waste disposal 24% from 2030 Business as Usual scenario.

In 2018, 61.2% of our solid waste was sent to landfills. While we have made substantial progress over the last five years to capture and divert waste from landfills, disposed waste has still increased steadily during that time period. In a BAU scenario, we anticipate a 21.6% increase in waste sent to landfills from 2018 levels due to system growth by 2030.

2018 OPERATIONAL SOLID WASTE COMPOSITION



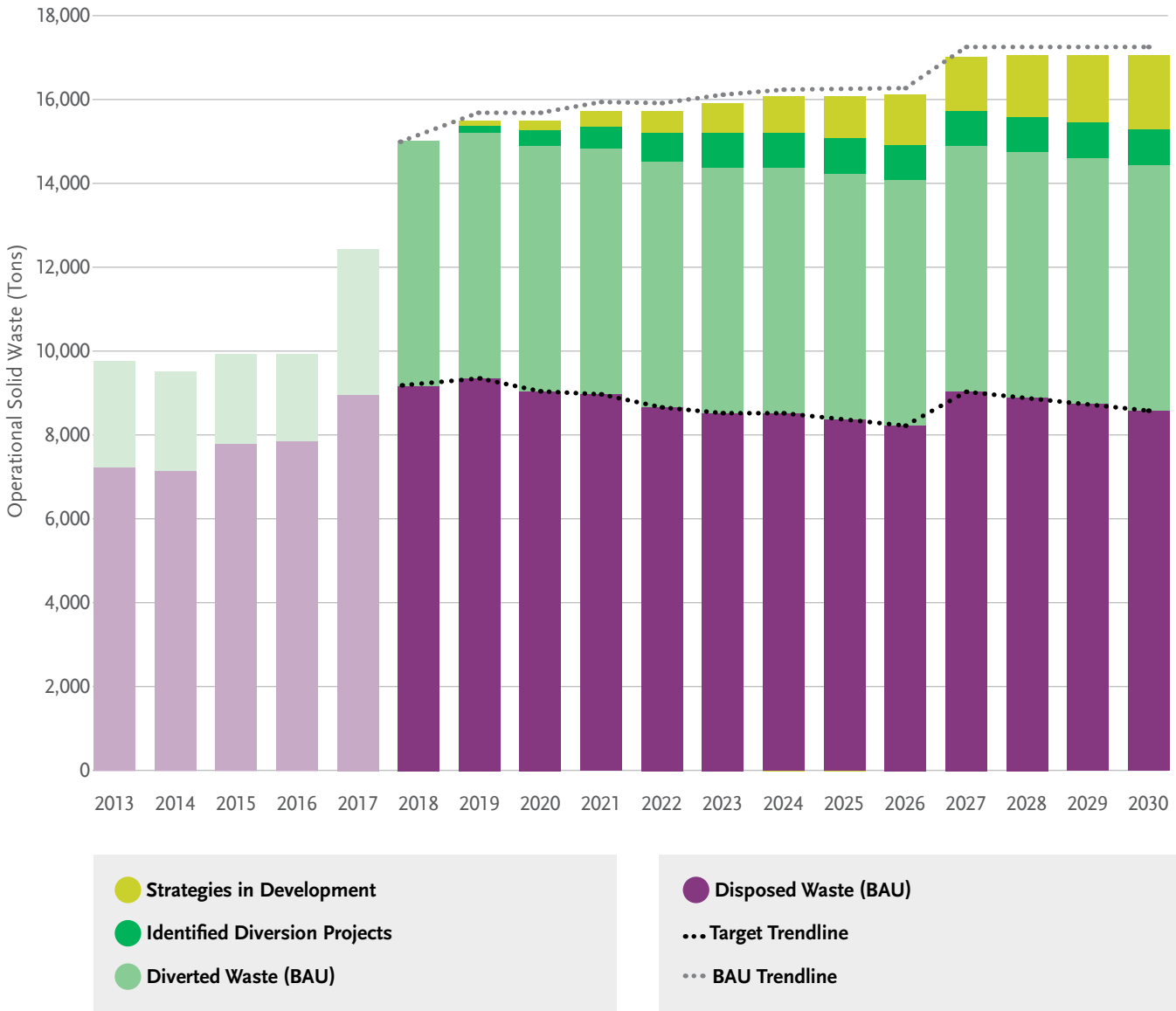
Planned waste prevention and diversion strategies are expected to minimize the impact of expected system growth on waste generation. The strategies, outlined under Target 2, will contribute toward reducing waste sent to landfills. By 2030, we expect to reduce landfill waste disposal from 2030 BAU levels by 24%.

TARGET 2

Achieve 50% landfill diversion rate for operational waste.

New diversion and prevention programs will assist with reducing waste sent to landfills. Not only will this reduce our overall landfill disposal tonnage, but it will also increase our overall diversion rate. Strategies to increase waste diversion at Metro include the launch of a food waste collection program at Metro headquarters and increased attention on sorting recyclables across all Metro facilities among other waste prevention strategies. It is also expected that the launch and growth of the Sustainable Acquisition Program will lead to increased opportunities for diversion. Using these and other strategies yet to be identified, we aim to achieve a 50% diversion rate by the year 2030.

OPERATIONAL SOLID WASTE FORECAST (2013 – 2030)



Note: This graph forecasts operational solid waste only as construction waste is variable and measured separately.

TARGET 3

Achieve 85% construction landfill diversion rate.

Materials generated during construction and demolition activities have the greatest potential to be diverted from typical landfills. CALGreen code currently requires 65% diversion of construction and demolition materials, yet we are committed to diverting at least 85% of our construction waste. To achieve this, we are updating our construction waste management

specifications and creating a central electronic repository to track and monitor all project construction and demolition waste prevention and landfill diversion rates. In addition, through the Sustainability Plan Program, we are developing tools and procedures to help contractors develop more comprehensive waste plans.

What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

Solid Waste Baseline and Characterization Studies

In 2017, we completed a solid waste baseline study and waste characterization studies to evaluate existing activities and performance at Metro headquarters and multiple bus and rail facilities. The baseline study evaluated operational practices and procedures and identified the material composition of the agency's waste streams. The results provided insight into our current reduction and recycling activities and quantified diversion activities that were not previously reported, including multiple organics, recycling and reuse programs. The studies provided compliance thresholds for regulated waste streams, giving us metrics to track compliance with AB 939 and AB 1826.

Solid Waste Management Plan
















Metro is developing a *Solid Waste Management Plan* that provides a roadmap to address climate change and reduce regional GHG emissions by managing solid waste sustainably and effectively. The plan prioritizes upstream solutions to prevent waste, which reflect the IWMH and consider the benefits of prevention, recycling, conversion and minimization of landfill disposal. This plan will help the agency set up the infrastructural framework for implementing disposal reduction programs that achieve regulatory compliance and progress toward meeting sustainability goals.

















Pallet Return Program

Metro's Central Maintenance Facility (CMF), which fulfills nearly 360,000 inventory requests per year, implemented a program to reduce waste output from pallets used for inventory storage and distribution. The program replaced standard wooden pallets with heavy-duty block wooden pallets, which are far more durable than conventional slatted pallets and survive an average of five times as many trips. In 2018, the program prevented approximately 2,100 tons of wood waste from going to landfills.






Waste reduction and diversion strategies through sustainable procurement and operational improvements will be critical to meet our 2030 targets.

PLANNED STRATEGIES AND ACTIONS

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Implement operational waste prevention and material reuse programs, which support a circular economy 	1.1 Add waste prevention and reuse specifications to major product/service contracts.		ECSD V/CM
	1.2 Develop contract language to support Extended Producer Responsibility requirements for bulky and non-recyclable items.		Facilities Maintenance ECSD
	1.3 Partner with regional stakeholders to develop and implement material reuse/exchange programs for surplus materials.		ECSD Operations General Services
	1.4 Implement paperless systems and paper reduction programs and systems (e.g., Safety Data Sheets).		ECSD Operations General Services
	1.5 Explore options to minimize single use consumable supplies and provide alternatives.		ECSD Operations General Services
	1.6 Evaluate the feasibility of implementing a reuse program for materials like furniture and other items that may be discarded in a remodel.		ECSD Operations General Services
	1.7 Identify opportunities for waste reduction by aligning with the Sustainable Acquisition Program and the principles of a circular economy.		ECSD Operations General Services
Implement operational recycling and organics diversion programs, including those that support compliance with AB 939, AB 341, AB 1826 and SB 1383 	2.1 Add recycling specifications to major product/service contracts.		ECSD V/CM
	2.2 Update agency-wide recycling programs to streamline collection bins and standardize signage.		ECSD Marketing and Communications
	2.3 Update specifications and contractor SOWs to require compliance with organics regulations.		ECSD Engineering
	2.4 Establish programs to divert organic waste from landfills, including edible food donation, anaerobic digestion and composting.		ECSD Operations General Services
	2.5 Evaluate and prioritize facilities for implementation of organics programs.		ECSD Operations
	2.6 Conduct a feasibility study on the costs and diversion potential of utilizing waste-to-energy for conversion of hard-to-divert materials such as bus blow-out trash.		ECSD

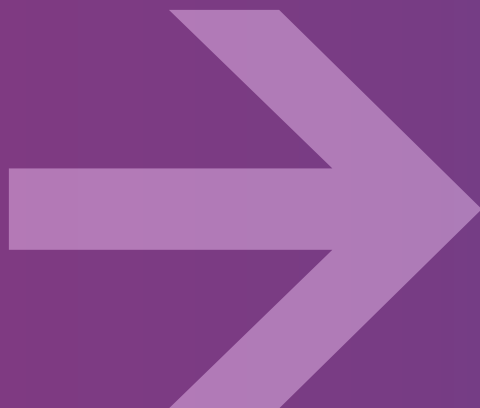
STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Establish and integrate best waste management practices into agency-wide operations 	3.1 Implement the Solid Waste Management Plan.		ECSD Operations
	3.2 Integrate waste management best practices into the SOPs and policy of strategic business units.		ECSD Operations
	3.3 Develop and deploy staff training on sustainable waste management principles and compliance obligations.		ECSD
	3.4 Integrate waste collection and diversion systems into the planning process in order to include space considerations for separating and storing waste.		Planning
Establish comprehensive monitoring and reporting practices to drive continual improvement 	4.1 Standardize solid waste/recycling monitoring protocols and incorporate into the EMS.		ECSD
	4.2 Develop mechanisms to track and report waste generation and diversion accomplishments.		ECSD Operations
	4.3 Partner with waste haulers to improve data accuracy by refining bin subscription levels and reporting protocols.		ECSD
Implement construction waste prevention and landfill diversion best practices 	5.1 Update Metro's Waste Management specification.		ECSD
	5.2 Update the <i>Construction and Demolition Debris Policy</i> .		ECSD Engineering
	5.3 Update vendor and construction specifications to support agency waste reduction and diversion targets.		ECSD V/CM
	5.4 Provide supporting tools and procedures to help contractors develop and implement more comprehensive waste plans.		ECSD
	5.5 Explore new technologies and cutting-edge practices that further construction waste prevention and diversion.		ECSD
	5.5 Create a central electronic repository to track and monitor all project construction and demolition waste prevention and landfill diversion rates.		ECSD

KEY: COMPLETION OF STATUS

				
in development	started	up to 25%	up to 50%	up to 75%

WE WILL CRAFT EVERY PROJECT SUSTAINABLY.

Innovative design and construction standards will increase Metro's use of low-carbon and responsibly produced materials. Smarter, more efficient operations will ensure the benefits of our green design strategies are realized.





MATERIALS, CONSTRUCTION AND OPERATIONS

GOALS

- > Demonstrate sustainable design and construction practices throughout all phases of capital improvement projects.
- > Optimize sustainable operations and maintenance of fleet, infrastructure and facilities.

TARGETS

- 1 Achieve LEED Silver certification or higher for all new facilities over 10,000 square feet, and achieve Envision certification where LEED is not applicable.
- 2 Design and build 100% of capital projects to CALGreen Tier 2 standards.
- 3 Complete Sustainable Acquisition Program training/implementation and develop 2030 program targets for annual sustainable acquisition spend by 2022.

3.6 Overview

Metro has embarked on an extensive capital construction program to expand our world-class transportation system. LA County voters approved two half-cent sales tax measures, Measure R in 2008 and Measure M in 2016, which have provided Metro with the resources to catalyze rapid growth in our system. The expansion includes construction and maintenance of new transit alignments and support infrastructure for rail lines, as well as rapid bus lines and bike paths. These improvements will advance regional mobility, but they require considerations for sustainable building and construction equipment and mindful consumption of water, fuels and materials.

Over and above the requirements of NEPA and CEQA, we have established programs to reduce the negative impacts of system growth. We established a *Green Construction Policy* (GCP) in 2011 to reduce emissions during construction, as well as the Sustainability Plan (SP) Program to assist contractors with meeting CALGreen obligations. Going forward, we are turning our attention to materials sourcing, for which we are actively identifying opportunities and funding for a more sustainable acquisition and services procurement.

Metro has established a sustainability engagement team who is responsible for developing interdepartmental partnerships across ECSD, Planning, Engineering & Operations, to ensure sustainability gets integrated into our construction projects at the earliest stages.

TARGET 1

Achieve LEED Silver certification or higher for all new facilities over 10,000 square feet, and achieve Envision certification where LEED is not applicable.

Metro has committed to constructing all new buildings over 10,000 square feet to LEED Silver standard or higher, per Board policy. To date, 12 buildings have been certified to LEED Silver or higher including Metro headquarters and several transportation and maintenance buildings. Additionally, we currently have four new facilities undergoing the certification process. We continue that commitment with additional efforts to incorporate applicable strategies from rating systems like Envision (<https://sustainableinfrastructure.org/envision/overview-of-envision/>) where LEED is not applicable.

TARGET 2

Design and build 100% of capital projects to CALGreen Tier 2 building standards.

Metro capital projects are designed and constructed based on approved design criteria, standards and specifications. In 2016, we developed and updated the Metro Rail Design Criteria (MRDC) section related to project environmental and sustainability requirements, specifically relating to energy conservation and efficiency, renewable energy, water conservation, biological and cultural resources and climate change and adaptation. The Metro systemwide

design team has developed a “kit of parts” to assist project teams in implementing sustainable infrastructure, such as LED lighting. In 2017, we developed a new Sustainability Technical Requirements specification (13 60 00) to augment our Sustainability Plan specification (01 35 63) requiring contractors to create a Sustainability Plan that integrates sustainable elements into design and construction of every project and ensure compliance to CALGreen Tier 2 requirements. More importantly, the specification requires contractors to comply with mandatory and voluntary (Tier 2) sustainability measures per the latest of the California Green Building Standards Code (Part 11) California Code of Regulations, Title 24 (CALGreen), as well as mandatory federal and local requirements.

Capital projects designed and built to Tier 2 building standards include both buildings and stations. Going forward, we will be applying relevant sections of the standard to other infrastructure improvements, including rights-of-way and alignments.

TARGET 3

Complete Sustainable Acquisition Program training/ implementation and develop 2030 program targets for annual sustainable acquisition spend by 2022.

Metro strives to integrate sustainability considerations into procurement decisions and evaluate the sustainability consequences of a product throughout its lifecycle. To this end, new products and technologies are evaluated for their ability to advance our environmental and social commitments, such as resource efficiency and small business engagement, while delivering the best financial value for Metro. Our Sustainable Acquisition Program will apply a more structured and comprehensive approach to considering the direct social and environmental impacts of products and services, as well as the operational practices of vendors along key points in the supply chain. As a result, the program will operationalize commitments in our environmental policy, advance our sustainability initiatives and continue Metro’s leadership regionally and among transportation agencies nationally.



What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

Metro Environmental Management System (ISO 14001)

Metro integrates sustainability and environmentally friendly practices into the lifecycle of its projects, including the planning, design, construction, operations and maintenance phases. One tool to achieve this is our robust EMS, which is certified to the ISO 14001:2015 standard and serves as a system for internal and external stakeholders to help us continually measure and improve our environmental and sustainability efforts. As of 2019, the Metro EMS covers 19 operational facilities (as defined by ISO 14001), bus and rail divisions and recently introduced construction (CEMS) as part of its scope. EMS seeks to continually improve sustainable building and construction processes through a rigorous process (Plan-Do-Check-Act) within an overall framework for managing the challenges of a project.

Sustainability Plan Program

In 2018, Metro's baseline specifications were updated to require the development and implementation of a project-specific sustainability plan regardless of the project size. These plans outline the environmental and sustainability commitments for each project. The commitments are consistent with statutory and regulatory requirements. Each project-specific sustainability plan meets or exceeds Metro's environmental and sustainability requirements, as well as the requirements of the California Green Building Code. The sustainability plan specification requires the contractor to also provide a project-specific sustainability coordinator to oversee all resiliency and long-term sustainability-related requirements for the project. Additionally, Metro is actively engaging project team members early through our Sustainability Engagement Teams, to integrate sustainability into the design and planning process.

Sustainable Infrastructure Engagement Process

CAPITAL PROJECT PHASE	KEY STAKEHOLDERS	SUSTAINABILITY ENGAGEMENT TEAM ACTIVITIES
Project Initiation (Planning)	Metro Countywide Planning & Development	Assign <i>Engagement Team</i> , start technical assessments, and catalog requirements.
Preliminary Design (Preliminary Engineering)	Metro Program Management & Design Contractor	Complete project specific assessments, analysis and studies; deliver <i>Sustainability/Environmental Requirements Package</i> , review contract specifications and ensure budget for next phase.
Design (Design Development)	Metro Program Management & Design Contractor	Track requirements, review design, develop commissioning protocols, review contract specifications and ensure budget for next phase.
Construction	Metro Program Management & Construction Contractor	Track project-specific <i>Sustainability Plan</i> progress submittals per design and specifications.
Transition to Operations and Maintenance	Operations and Maintenance & Contracts	Provide O&M training, develop manuals, and commissioning and maintenance protocols.

Metro Rail Design Criteria Update

The environmental considerations within the MRDC were updated in 2010 and 2018 to include sustainability requirements, multi-mobility hubs with various first/last mile strategies, climate change adaptation principles and green infrastructure.

Certification Report Card

The following Metro facilities have achieved LEED certification:

FACILITY	CERTIFICATION	LEVEL	YEAR / STATUS
Division 16 Southwestern Yard	Division 16 Southwest Yard	Silver	2019
Location 64	Location 64	Gold	2019
Division 14	Division 14	Gold	2017
Division 24	Division 24	Silver	2016
Division 7 Campus	Division 7 Campus	Silver	2015
Division 10 Campus	Division 10 Campus	Silver	2014
Division 3 Maintenance Annex	Division 3 Maintenance Annex	Gold	2010
Union Station Gateway	Union Station Gateway	Gold	2010
El Monte Station	El Monte Station	Gold	2009
Division 13	Division 13	Gold	2009
Division 3 Maintenance Building	Division 3 Maintenance Building	Certified	2008
Division 9 Transportation Building	Division 9 Transportation Building	Gold	2008
CMF Building 6	CMF Building 6	Gold	2007

As of this printing, the following projects are in the process of LEED certification:

FACILITY	CERTIFICATION	LEVEL	YEAR / STATUS
Emergency Security Operations Center	NC	TBD	In design
Airport Metro Connector 96th Street Station	NC	Silver	In design
Willowbrook/Rosa Parks Station – Security Hub	NC	TBD	2020 – under construction
Willowbrook/Rosa Parks Station – Bike Hub	NC	TBD	2020 – under construction

Envision Certification

With the focus on planning and process from design stage through operations and maintenance, there is much in the Envision rating system that helps Metro consider the best sustainability practices throughout the life of our projects. Both the Expo Line Phase 2 and the Purple (D Line) Extension – Section 1 achieved Platinum Envision certification. While Envision is an industry best practice and is used to guide the building of sustainable infrastructure, it is not a formally adopted Metro policy.

Metro's Environmental Construction Awareness (MECA)













Launched in 2017, MECA is an online platform that provides information and resources to contractors about environmental requirements to help them develop effective proposals. MECA reinforces the importance of environmental compliance and sustainability from project design through construction, upholding Metro's commitment to the environment.

Sustainable Acquisition Program






In June 2019, Metro's Board of Directors adopted the Sustainable Acquisition Program: Metro's first top-down and enterprise-wide program for sustainable purchasing. This program enhances the agency's acquisition practices, ensuring that environmental, human health, social, ethical and financial considerations consistently inform such decisions. The program supports an already robust supplier outreach program at Metro that incorporates social considerations into Metro's acquisition process, including Disadvantaged Business Enterprise (DBE), Small Business Enterprise (SBE) and Disabled Veteran Business Enterprise (DVBE).














Metro is actively working to engage project team members early to integrate sustainability into the design and planning process through our Sustainability Engagement Teams.











PLANNED STRATEGIES AND ACTIONS

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Continually improve sustainability standards and requirements for project design and construction 	1.1 Adopt CALGreen Tier 2 building standards for all capital projects.		ECSD Engineering, Planning
	1.2 Ensure continual improvement in alignment with MRDC, Bus Rapid Transit, design criteria and language with current CALGreen codes and Board policies.		ECSD Engineering, Planning
	1.3 Increase early engagement with ECSD by identifying sustainability standards that are required during early project planning phases.		ECSD Planning
	1.4 Require design and construction projects to use sustainable building materials.		ECSD V/CM, Planning
	1.5 Require Environmental Product Declarations for construction materials.		V/CM ECSD, Planning
	1.6 Update requirements for urban greening actions on all applicable project specifications.		ECSD Planning
	1.7 Evaluate the opportunity to hold an annual supplier symposium where contractors can present green alternatives for products and services.		ECSD Planning
	1.8 Develop a green infrastructure decision-making framework.		Planning
Pursue green certification standards for buildings and infrastructure construction 	2.1 Assess and implement available environmental certifications for adoption as Metro’s policy.		ECSD
	2.3 Collaborate with designers to determine achievable green certification options for specific projects.		ECSD

KEY: COMPLETION OF STATUS

 in development	 started	 up to 25%	 up to 50%	 up to 75%
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STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Commission all projects to ensure optimal performance 	3.1 Develop a commissioning policy and specifications identifying the size and frequency of buildings to undergo commissioning and retro-commissioning.		ECSD Program Management Engineering
	3.2 Provide oversight for project commissioning and retro-commissioning efforts.		ECSD Program Management Engineering
	3.3 Perform Metro enterprise-wide assessment of Building Management System (BMS) and update performance specifications with results of data.		ECSD Program Management Engineering
	3.4 Provide training on commissioning requirements to Metro engineers and project managers.		ECSD Talent Development
	3.5 Perform upgrades and improvements to the existing BMS and install BMS at those facilities that do not yet have one.		ECSD
	3.6 Install an Energy Management System (EMS) to monitor, control and remotely audit the BMS at each Metro facility.		ECSD
	3.7 Perform regular energy audits on the EMS to ensure it is running efficiently and effectively and that the BMS at each facility is connected and transmitting data to the EMS.		ECSD
Expand the Green Construction Policy and Sustainability Plan Programs 	4.1 Evaluate the SP Program to identify opportunities to increase contractor compliance and project sustainability commitments.		ECSD Program Management
	4.2 Develop sustainability budget allowances or alternatives in project bid documents to fund sustainability elements for projects.		ECSD Program Management V/CM
	4.3 Develop a set of tools to assist contractors in meeting CALGreen and Metro sustainability requirements.		ECSD
	4.4 Investigate expanding the GCP to include or favor electric construction equipment.		ECSD

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Implement the <i>Sustainable Infrastructure Engagement Process</i> on all major capital projects M5	5.1 Integrate the <i>Sustainability Engagement Team</i> into all phases of major capital projects to shepherd project specific sustainability and environmental requirements.		ECSD V/CM, Engineering Planning
	5.2 Ensure proper budget allocation and contract language for sustainability and environmental requirements to eliminate change orders.		ECSD V/CM, Engineering Planning
	5.3 Conduct project specific research, sustainability technical assessments and studies, life-cycle cost analysis and other technical specification requirements to demonstrate value.		ECSD V/CM, Engineering Planning
	5.4 Update the Sustainability Plan specifications and guidance documents to provide clear direction to contractors on incorporation of sustainability and environmental requirements in all major capital projects.		ECSD V/CM, Engineering Planning
Develop and implement an agency-wide Sustainable Acquisition Program M6	6.1 Develop tools and procedures to guide implementation of the Sustainable Acquisition Program.		ECSD V/CM
	6.2 Conduct annual spend analyses to identify and prioritize product replacement and other high impact acquisition opportunities.		ECSD V/CM
	6.3 Assess environmental impacts of products and materials using life cycle cost analysis, including embodied carbon.		ECSD V/CM
	6.4 Engage the Metro vendor community to evaluate opportunities for supplier leadership.		ECSD V/CM
	6.5 Assess feasibility of electronic bid submission system for all procurements.		ECSD V/CM
	6.6 Include DBE as part of the Sustainable Acquisition Program.		V/CM ECSD

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY	
<p>Integrate resource conservation, life cycle and efficiency considerations into Metro’s operational policies, SOPs and specifications</p> <p>M7</p>	7.1 Evaluate implementing a hierarchical sustainability decision matrix as a tool for prioritizing procurement and overall programmatic decisions.		ECSD	
	<p>Develop and implement materials, construction and operations related training for Metro staff, partners and community to facilitate a culture of sustainability</p> <p>M8</p>	8.1 Develop a certification program within MECA to improve contractor and subcontractor knowledge of environmental and sustainability requirements.		ECSD DEOD
		8.2 Expand Growing a Greener Workforce (GGW) Program to include additional curriculum and partners to raise awareness about sustainable materials, construction and operations.		ECSD
		8.3 Implement Metro staff training on sustainable materials, construction and operations goals, targets and strategies.		ECSD Talent Development
	8.4 Provide sustainable design training to support the selection of sustainable design materials for Metro discretionary grant recipients and public agency partners.		Planning Talent Development	

KEY: COMPLETION OF STATUS

in development	started	up to 25%	up to 50%	up to 75%

WE WILL USE MORE RENEWABLE ENERGY.

Our energy choices have far-reaching impacts on air quality, community health and well-being. By improving the efficiency of our buildings and purchasing carbon-free electricity, Metro is flipping the switch to a renewable, resilient and reliable energy future.





ENERGY RESOURCE MANAGEMENT

GOAL

> Optimize and manage Metro's use of energy.

TARGETS

- 1 Reduce energy consumption by **17%** at facilities from the 2030 Business as Usual scenario.
- 2 Increase onsite renewable energy generation to **7.5 MW**.

3.7 Overview

Our transportation system is powered primarily by electricity and natural gas, provided by seven utility suppliers across the region. The use and sourcing of that energy has ongoing impacts and longstanding implications for the environmental, fiscal and infrastructural resilience of our system. That is why Metro is taking proactive measures to procure and generate more renewable energy and implement innovative energy conservation practices and technologies in buildings.

However, 80% of our energy footprint is vehicle fuel, including a mix of compressed natural gas (CNG), diesel and gasoline that powers vehicles across our fleet. Metro is making strides in electrifying its fleet through our *Zero Emissions Bus Master Plan* (2020) and *Electric Vehicle (EV) Implementation Plan* (2021), which will substantially reduce our GHG emissions (see the Emissions and Pollution Control section and the 2019 CAAP for more information).

We primarily use energy in three ways: powering our operational facilities, fueling our vehicles and powering our rail systems.

Facility Energy

Building operations support over 1.2 million weekday rail and bus transit patrons. Metro's building energy consumption alone accounts for just over 100 gigawatt-hours (GWh) of electricity consumption per year across our extensive inventory of facilities in LA County.

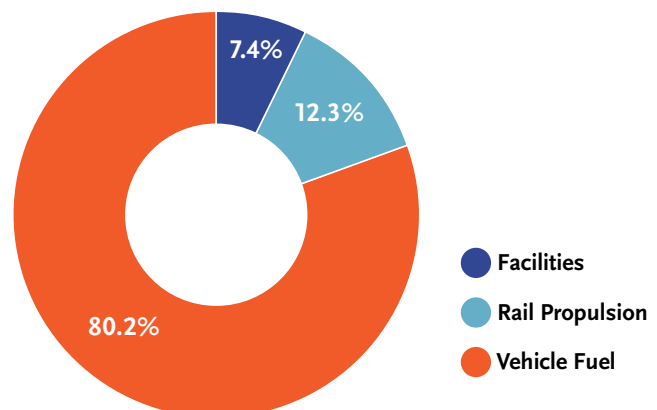
Vehicle Fleet Energy

Metro's vehicle fleet accounts for 80% of total energy consumption per year. Vehicle fuels power Metro's bus fleet, bus transit alignments, vanpool and all non-revenue vehicle fuels. Strategies to minimize Metro's fleet energy impact are more thoroughly discussed in the Emissions and Pollution Control section.

Rail Traction Power Energy

Rail propulsion power accounts for greater than 200 GWh of electricity use and accounts for 12% of the agency's energy consumption. Metro's coverage includes over 100 miles of light and heavy rail transit across LA County, with an expected 51 additional route miles by 2030. Metro purchases electricity from local utilities all of which are mandated to provide carbon free energy by 2045 (SB 100).

2018 ENERGY CONSUMPTION BY END USE



A Growing Future, A Growing Responsibility

Metro’s total energy consumption is expected to increase as a result of aggressive expansion of the rail system and commitment to increasing our electrified bus assets. In November 2016, Measure M was passed to help ease traffic and improve transportation. Within the *Measure M Program Management Plan*, the Twenty-Eight by '28 Initiative highlights the highest priority developments to complete prior to the 2028 Olympic Games. Key developments include the Purple (D Line) Extension Project Sections 1-3, the Airport Metro Connector and the Metro Rail Foothill Extension Project.

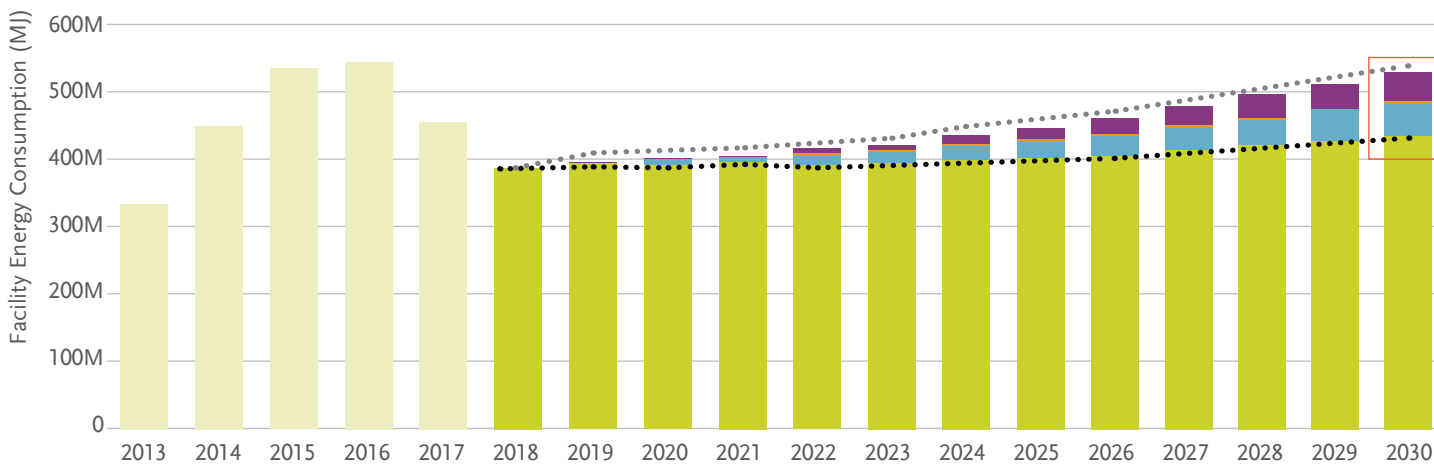
TARGET 1

Reduce energy consumption by **17%** at facilities from the 2030 Business as Usual scenario.

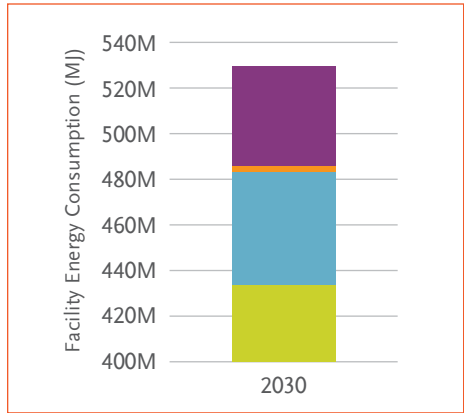
Despite system growth and increasing demand, we are committed to reducing our energy consumption. We have identified multiple opportunities to achieve a 17% reduction from the 2030 BAU scenario. These include implementing already identified energy projects, instituting an enterprise-level BMS and adopting a formal facility commissioning and retro-commissioning policy.

The chart below shows how Metro will reduce its energy consumption from the BAU scenario, highlighting the specific contributions of each of the strategies that we will implement between now and 2030.

TOTAL FACILITY ENERGY CONSUMPTION FORECAST



- Strategy 1: Energy Conservation Portfolio
- Strategy 2: Building Management System (BMS)
- Strategy 3: Facility Commissioning and Retro-Commissioning
- Facility Energy Consumption (BAU)
- ... Target Trendline
- ... BAU Trendline



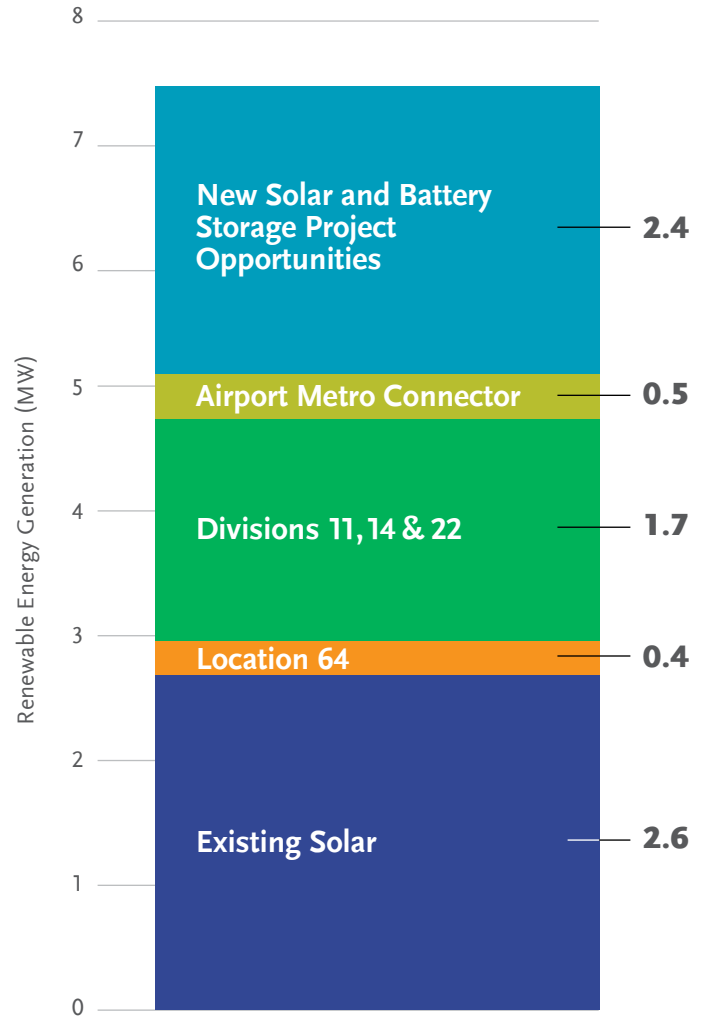
TARGET 2

Increase Renewable Energy Generation to 7.5 MW.

Solar photovoltaic (PV) technology is a critical component of our renewable energy strategy. We currently own and operate 2.6 megawatts (MW) of solar PV across eight facilities. These onsite installations accounted for 2.65 megawatt-hours of consumption in 2019. However, we are working aggressively to increase renewable energy generation capacity through installations at multiple operating divisions, the newly constructed Location 64 and the Airport Metro Connector by 2023. Together, these projects will help us achieve our 2030 goal of 7.5 MW of renewable energy generation – tripling current generation levels.



2030 ONSITE RENEWABLE ENERGY GENERATION TARGET



New projects will help us achieve an increase to our target of 7.5 MW of renewable energy generation by 2030.

What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

Union Station Gateway Parking Garage Lighting Retrofit

We are currently retrofitting the parking garage at Union Station Gateway with new light-emitting diode (LED) lamps to replace existing lighting fixtures. This project is estimated to reduce energy consumption by 866,000 kWh each year. After the installation, we will measure and verify consumption and cost reductions on an ongoing basis to support similar projects at other facilities.

Parking Structure Lighting Upgrades

Our Parking Management department completed a lighting retrofit at four parking structures in 2018. Upgrades to light fixtures produced annual savings of 1.2 million kWh.

PV Preventative Maintenance Program

To support our renewable energy investments, we launched the PV Operations and Maintenance Program in 2014 to provide technical training and resources to Metro maintenance personnel at facilities with PV systems. The program teaches Metro staff to benchmark energy generation and troubleshoot issues. Since launch, the program has provided over 700 hours of training to 120 personnel, resulting in faster response times and increased system uptime year over year. As a result, we embarked on a significant maintenance program in 2019, reducing annual output. Even so, the program avoided approximately \$220,000 in utility costs this year with a promise of even greater savings moving forward.

















Energy Conservation Portfolio











We have created a portfolio of energy conservation measures for implementation across maintenance facilities, terminals and administrative buildings. Planned portfolio projects include:

- > LED lighting, air compressor upgrades at Location 30
- > Installation of retrofit LED lighting at Divisions 7, 9, 10, 11, 15 and 22
- > Installation of electrical sub-meters at all Metro Bus and Rail Maintenance Facilities
- > Energy efficient dust collection system installation at Metro's CMF, Building 5 Paint Shop
- > Planned Heating, Ventilation and Air Conditioning (HVAC) system retrofits at Divisions 5, 11 and 22


We primarily use energy in three ways: powering our operational facilities, fueling our vehicles and powering our rail systems.

PLANNED STRATEGIES AND ACTIONS

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Implement projects identified in the energy conservation project portfolio 	1.1 Complete Gateway LED Lighting Project.		ECSD Engineering, Facilities Maintenance
	1.2 Complete ECSD's Phase 1 Energy Project portfolio.		ECSD Engineering, Facilities Maintenance
	1.3 Identify additional energy conservation measures for implementation.		ECSD Engineering, Facilities Maintenance
	1.4 Consolidate existing energy studies into a comprehensive Energy Efficiency Study.		ECSD Engineering, Facilities Maintenance
	1.5 Consolidate energy data and develop formal management and analysis plan for quality-controlled agency reporting.		ECSD Engineering, Facilities Maintenance
Optimize BMS at all divisions and Gateway facility 	2.1 Perform an enterprise-level BMS assessment.		ECSD Maintenance and Engineering Facilities Maintenance, ITS
	2.2 Implement recommended repairs identified by BMS assessment.		ECSD Maintenance and Engineering Facilities Maintenance, ITS
	2.3 Install BMS controls at divisions without preexisting system to streamline operations and maintenance.		ECSD Maintenance and Engineering Facilities Maintenance, ITS
	2.4 Incorporate BMS into brand-agnostic and uniform user interface for improved quality assurance.		ECSD Maintenance and Engineering Facilities Maintenance, ITS
	2.5 Develop BMS maintenance and training program.		ECSD Maintenance and Engineering Facilities Maintenance, ITS
Implement an agency-wide facility commissioning and retro-commissioning program 	3.1 Develop commissioning standards, guidelines and commissioning specifications.		ECSD Engineering, Facilities Maintenance Planning
	3.2 Onboard an in-house Commissioning Team.		ECSD Engineering, Facilities Maintenance
	3.3 Develop a five-year rolling cycle of energy auditing and retro-commissioning for all major facilities.		ECSD Engineering, Facilities Maintenance

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Expand the onsite renewable energy portfolio 	4.1 Complete installation of identified solar PV projects.		ECSD Engineering, Facilities Maintenance
	4.2 Expand PV Operations and Maintenance Program.		ECSD Engineering, Facilities Maintenance
	4.3 Update renewable energy inventory and include distributed energy resources.		ECSD Engineering, Facilities Maintenance
	4.4 Develop and refine solar design guidelines for all Metro projects, including considerations for scalability.		ECSD Engineering, Facilities Maintenance, Planning
	4.5 Identify additional onsite renewable energy generation and energy storage projects.		ECSD Engineering, Facilities Maintenance
Develop supporting infrastructure for electric transportation 	5.1 Secure favorable utility billing rates for electrified rail and bus charging.		ECSD Rail Vehicle Acquisition, Government Relations
	5.2 Analyze opportunities to reduce peak loads from propulsion power.		ECSD Rail Vehicle Acquisition, Government Relations
	5.3 Partner with regional utilities to implement EV charging infrastructure.		ECSD Rail Vehicle Acquisition, Government Relations

KEY: COMPLETION OF STATUS

				
in development	started	up to 25%	up to 50%	up to 75%

WE WILL REDUCE EMISSIONS.

Clean air is among the building blocks of healthy living. Metro's investments in zero-emissions vehicles and advanced energy sources are helping LA County improve air quality. And each trip you make on a bus, train or bike helps, too.





EMISSIONS AND POLLUTION CONTROL

GOALS

- > Reduce regional GHG emissions.
- > Reduce Metro's GHG and criteria air pollutant emissions.⁶

TARGETS

- 1 Displace 903,000 MTCO₂e annually.
- 2 Reduce total GHG emissions by **79%** from 2017 baseline.⁷
- 3 Reduce total nitrogen oxides (NOx) emissions **54%** from 2018 baseline.
- 4 Reduce total particulate matter (PM) emissions **62%** from 2018 baseline.

3.8 Overview

Transportation is a major contributor to reducing regional GHG emissions. By providing more convenient, efficient and appealing transportation options, we can move more people, while reducing GHG emissions for each trip taken – reducing the negative impact that transportation has on the environment and public health.

We have an obligation to recognize and mitigate the negative environmental impacts of operating our system. We understand the urgency posed by climate change projections, which are expected to present risks affecting our riders and employees, as well as our infrastructure and services. The Intergovernmental Panel on Climate Change's *Special Report on Global Warming of 1.5-degrees Celsius* provides clear information about these risks and the consequences of inaction.

In addition, California has passed ambitious climate and renewable energy legislation and regulations, including Assembly Bill 32 (AB 32) in 2006 and Senate Bill 100 (SB 100) in 2018. Accordingly, Metro updated our 2019 CAAP, where we commit to building climate change resilience within our transportation system and across the region, and commit to zero GHG emissions by 2050. Thus far, we have completed several energy assessments and implemented large-scale projects, including LED lighting retrofits, a transition to RNG for our bus fleet, a bus electrification plan and various system upgrades at rail and bus maintenance divisions. Each action is a step toward achieving

regional and statewide emissions goals, and ultimately achieving a zero emission transportation system.

The impacts of our transportation system and its operations extend beyond GHG emissions. We operate within the South Coast Air Basin, the most polluted air basin in the United States. Criteria air pollutants of particular concern include low level ozone, oxides of nitrogen and particulate matter. Metro's fuel consumption and use of chemicals contribute to present air quality issues. We recognize that our commitments to mitigate emissions must include strategies that reduce the formation of smog and other air pollution, which will be critical to protecting regional public health.

TARGET 1

Displace 903,000 MTCO₂e annually.

Metro consistently displaces more GHG emissions than we produce, meaning that by virtue of providing an alternative mode of transit we are preventing GHG emissions. A fifth of Metro's displaced emissions come from individuals selecting to ride Metro over driving their own vehicles, and the rest are displaced through land use patterns based on our transit services. Without Metro, LA County's GHG emissions in 2017 would have been 3.7% higher.

6. **Criteria air pollutants** are pollutants for which the U.S. EPA has set National Ambient Air Quality Standards. Metro tracks emissions for three common criteria air pollutants: Nitrogen Oxides (NOx), Particulate Matter (PM), and Hydrocarbons (HC).

7. This baseline was set in the 2019 CAAP and incorporated new APTA guidelines for calculating displaced emissions from land use.

It is important to quantify and track Metro's regional GHG impact in order to ensure we are meeting the intent of regional and state climate goals. In 2019 alone, we displaced or prevented 900,000 metric tons of carbon dioxide equivalent (MTCO₂e) from being emitted. By 2030, we anticipate this figure will slightly increase to 903,000 MTCO₂e, since we anticipate that passenger miles traveled will increase by 21% by 2030 (from 2017), preventing additional emissions via mode shift and changes to land use. However, increased fuel efficiency standards for private vehicles are expected to reduce displaced emissions over time (12% by 2030, 15% by 2050). Despite that, we anticipate that net GHG benefits (emissions displaced minus direct emissions) will increase over time, but increasing ridership through improved access, quality and affordability will yield additional benefits.

Increasing ridership through improved access, quality and affordability will harness additional benefits.

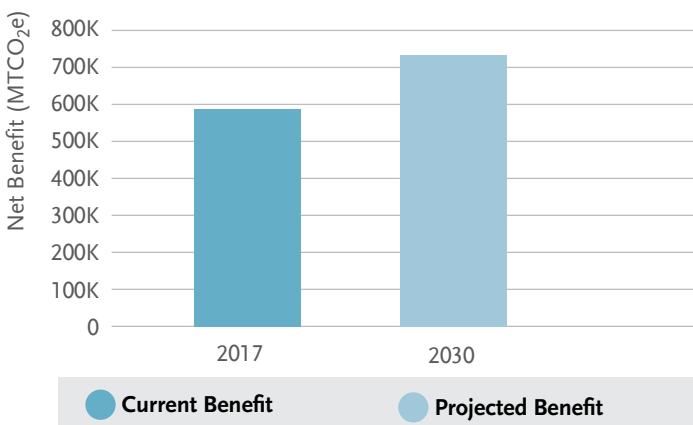
TARGET 2

Reduce total GHG emissions by 79% from 2017 baseline.

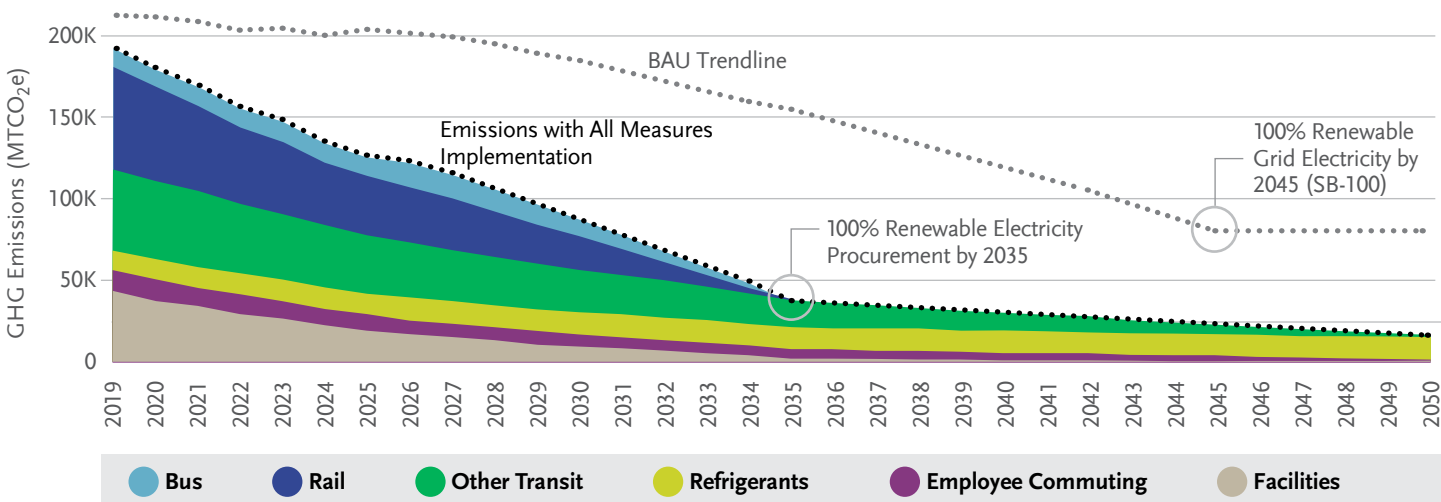
The single largest contributor to Metro emissions is our directly operated bus fleet (57%). From operational activities alone, we emitted over 432,000 MTCO₂e in 2017 (or one year's worth of GHG emissions from 88,000 passenger vehicles), 81% of which are attributable to transit.

Metro estimates that our emissions will decrease 57% from the 2017 baseline by 2030 in a BAU scenario (See the 2019 CAAP). Reductions are largely anticipated based on expected shifts in fuel sourcing from CNG to RNG through 2020. However, in the CAAP, we identified 13 measures to expedite the reduction of GHG emissions at Metro. These include electrifying our vehicle fleet, increasing renewable energy sourcing and storage and improving electricity, water and other facility fixtures. Metro is coordinating with regional utilities including The Clean Power Alliance to reduce emissions from electrical sourcing and support the utilities in achieving the SB100 requirement of carbon free energy by 2045. By implementing the CAAP, Metro expects to achieve a 79% reduction in emissions from 2017 levels by 2030.

PROJECTED NET GHG EMISSION BENEFIT



GHG EMISSIONS FORECAST BY END-USE CATEGORY



Note: Other transit includes CNG compression, contracted buses, vanpool and non-revenue vehicles.

TARGET 3

Reduce total nitrogen oxides (NOx) emissions 54% from 2018 baseline.

Reducing criteria air pollutant emissions is critical to protecting public health and reducing air pollution. Metro is expediting the transition of our directly operated bus fleet engines to near-zero emissions engines, already yielding substantial reductions in NOx emissions. We have committed to completely electrify our bus fleet by 2030, as well as to ramp up electrification across our contracted bus, non-revenue and vanpool fleets.

We are in the process of developing our *EV Implementation Plan* (2021), which will commit Metro to increasing support for bus and non-revenue fleet electrification, as well as increase EV charging access for community members and employees. As of now, we anticipate that 70% of our non-revenue light duty vehicles will be battery electric by 2030.

These shifts in fleet composition will lower overall NOx emissions by just over 54% by 2030 (from 2018 levels). We will continue to evaluate additional opportunities to expand and expedite vehicle electrification.

We recognize that our commitments to mitigate emissions must include strategies that reduce the formation of smog and other air pollution.

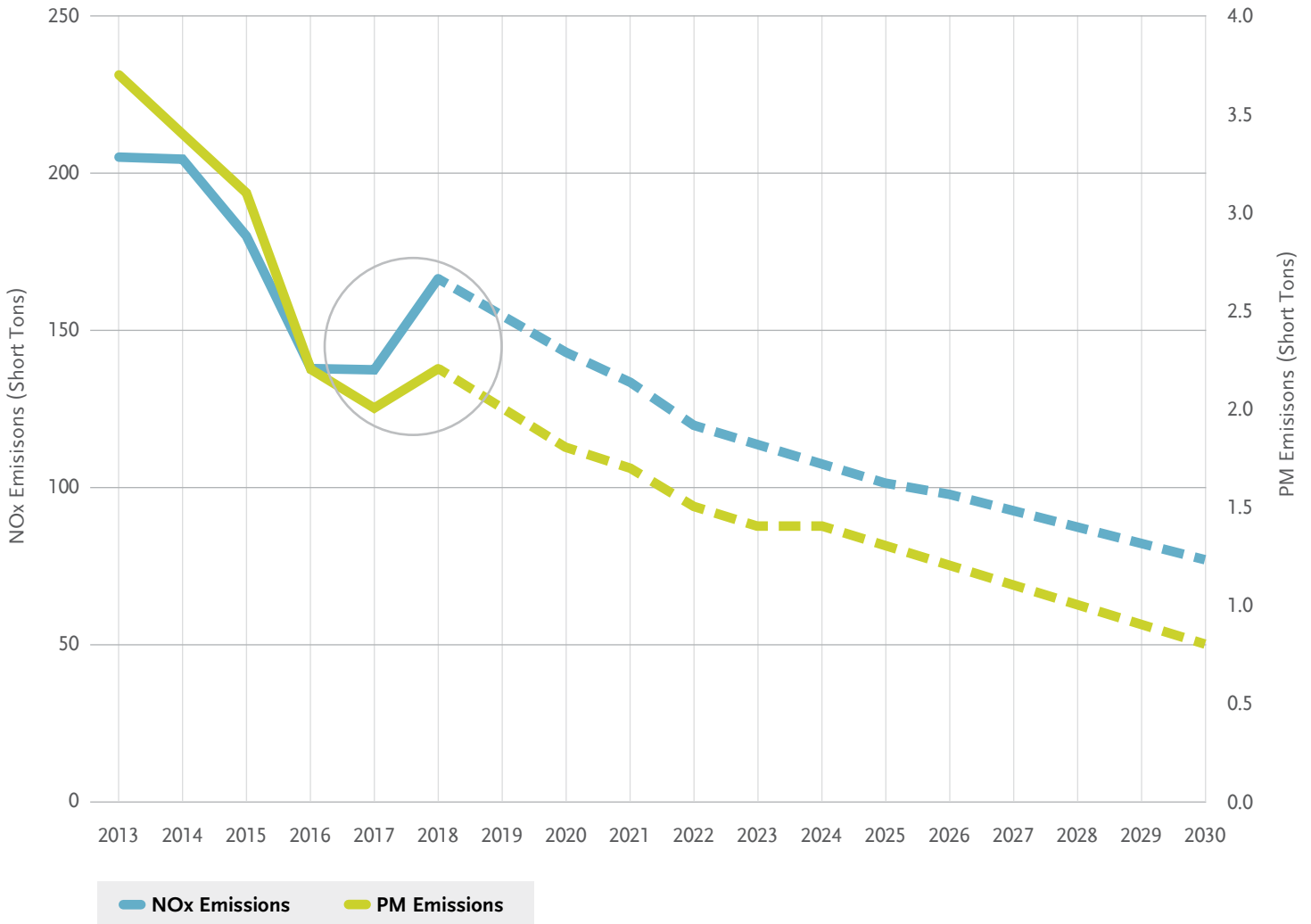
TARGET 4

Reduce total particulate matter (PM) emissions 62% from 2018 baseline.

Metro is committed to reducing PM emissions by replacing older engines with near-zero emissions engines, as well as transitioning to battery electric buses and vehicles. These efforts are expected to yield substantial reductions in PM emissions, amounting to a 62% reduction by 2030 from the 2018 baseline.



CRITERIA AIR POLLUTANT EMISSIONS FORECAST (2018–2030)



Note: Non-revenue fleet criteria air pollutant emissions measurements were not recorded until 2017. Vanpool fleet criteria measurements were not recorded until 2018. The circle notes the addition of the non-revenue fleet and vanpool fleet criteria air pollutant emissions measurements to Metro's total measurements.

What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

2019 Climate Action and Adaptation Plan (CAAP)

The 2012 CAAP was updated in 2019, describing Metro's commitment to mitigate the impacts of climate change and build climate resilience. The 2019 CAAP identifies 13 measures to reduce GHG emissions by 79% by 2030 and 100% by 2050 (from 2017 levels). It lays out our commitment to make climate resilience an organizational priority, as well as approaches to adapt. The CAAP working group was formed, including key members from ECSD, Planning, Vehicle Technology/Non-Revenue Vehicles, Engineering, Asset Management and other key departments. The cross-sectional working group analyzed strategies that reduce emissions from regional transportation, support vehicle technology with emissions calculations and reviewed estimates, plans and programs related to biomethane, bus electrification and other fleet improvements. The working group also assessed existing legislation and guidance from local, regional, state and federal entities and completed an inventory of all new and/or existing emission-reducing projects.

Transition from Compressed Natural Gas to Renewable Natural Gas

As of 2018, 85% of Metro's GHG emissions came from vehicle fuels. Metro turned to RNG as a cost-effective, low-carbon alternative to CNG. Derived from waste sources such as landfills, RNG has proven effective in reducing emissions and fuel costs. Our 2017 pilot realized a 3.5% reduction in fleet emissions and a 19% cut to fuel costs. The directly operated bus fleet completed its full transition to RNG fuel sourcing in mid-2020.

Green Construction Policy

The GCP was updated in 2018, requiring contractors to use renewable diesel for all diesel engines and thus reducing the negative health impacts from diesel exhaust. For the Crenshaw/LAX project, the reduction in emissions for 2017 was equivalent to removing over 15,000 cars from the road. This effort reaffirms Metro's commitment to protect the communities we serve, especially those disproportionately affected by air pollution.

Near-Zero Emission Engines and Bus Electrification

Metro has already replaced over 220 aging bus engines with near-zero emission engines and plans to continue, replacing at a rate of 140-180 engines per year. This initiative not only increases the operating life of existing buses, but more importantly it reduces NOx and PM emissions from our bus fleet. We have additionally adopted a comprehensive plan to transition to a 100% zero emission electric bus fleet by 2030. Our first electric buses hit the road in summer 2020, running on the G Line (Orange).

710 Clean Truck Program

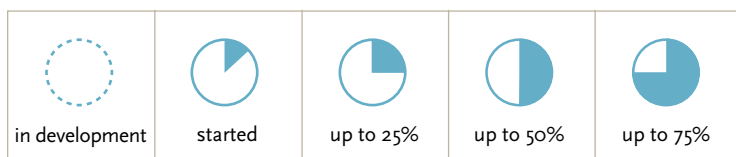
At the April 2020 Board Meeting, the Board approved programming \$50 million in Metro-controlled funds for the 710 Clean Truck Program, aimed at easing congestion and reducing pollution on the southern part of the 710 between the ports and rail yards. The idea is to help develop and incentivize zero or near-zero emission truck technology and recharging equipment to be used by private industry.

We have an obligation to recognize and mitigate the negative environmental impacts of operating our system.

PLANNED STRATEGIES AND ACTIONS

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Transition Metro's fleet to zero emissions technology 	1.1 Adopt and implement Metro's <i>Zero Emission Bus Master Plan</i> .		Operations ECSD
	1.2 Develop, adopt and implement an EV Implementation Plan to expand use of EVs and access to EV charging infrastructure.		ECSD Operations
	1.3 Pursue transition of non-revenue medium-to-heavy duty vehicles and vanpool fleet to electric vehicles.		ECSD Non-Revenue
Decarbonize Metro's energy and fuel supply 	2.1 Complete fleet transition to RNG fuel.		Operations ECSD, Program Management
	2.2 Apply renewable diesel requirements for contractors and identify opportunities to decarbonize fuel sources at construction sites.		ECSD
	2.3 Adopt an Energy Supply Plan to establish a clear pathway to 100% renewable energy supply.		ECSD
Improve methodology for monitoring and measuring emissions 	3.1 Develop a GHG Inventory Plan to improve GHG accounting practices, including additional Scope 3 emissions sources and alignment with the ISO 14064 standard.		ECSD
	3.2 Enhance accounting practices for air quality to include both operations and construction activities.		ECSD Corporate Safety
	3.3 Inventory and phase out refrigerants with high global warming potential for both mobile and stationary sources.		ECSD Corporate Safety
	3.4 Update CAAP every five years.		ECSD
	3.5 Develop associated performance metrics in Metro's <i>LRTP</i> .		Planning

KEY: COMPLETION OF STATUS



STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Implement a scheduled maintenance program for stationary and mobile emissions sources in order to reduce emissions	4.1 Inventory all portable engines to ensure portable equipment registration program compliance.		ECSD
	4.2 Implement a tracking system for off-road vehicles and engines to monitor maintenance, fuel type and engine hours.		ECSD
Coordinate and partner on regional efforts to achieve state GHG emissions reduction goals	5.1 Adopt and support an LA County Goods Movement Strategic Plan.		Planning
	5.2 Support the state of California's Zero Emissions Vehicle Action Plan by using zero emission freight service equipment.		Operations
	5.3 Prioritize use of zero emission vehicles in the Green Construction Program by requiring use of electric medium and heavy-duty equipment during construction.		ECSD
	5.4 Explore further measures to reduce employee commuting emissions.		ECSD Facilities Maintenance Human Capital & Development
	5.5 Continue to participate in the Transportation Electrification Partnership formed by LACI.		Operations ECSD Planning
	5.6 Evaluate the concept of a regional VMT exchange/bank as a method to reduce VMT through the funding of Metro demand management programs.		Planning
	5.7 Work with SCAG and CARB to assess the utility of regular measuring and monitoring of VMT and/or GHG emissions attributable to light-duty vehicles at the county level to support state climate goals.		Planning ECSD

EP4

EP5

KEY: COMPLETION OF STATUS

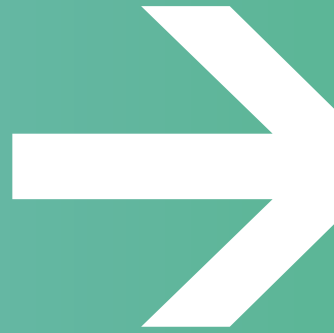
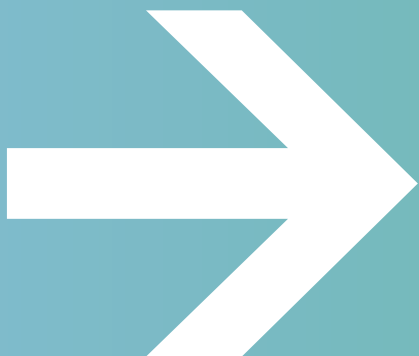
in development	started	up to 25%	up to 50%	up to 75%



Anaheim St

WE WILL BE STRONG IN THE FACE OF CHANGE.

Climate change and other crises need a thoughtful and proactive response. Metro is improving the resilience of our system and is committed to being a partner in regional efforts to safeguard our community.





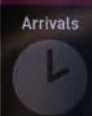
Exit to

- 1 **A** 7th St/Metro Center 11 min
- 2 **A** Downtown Long Bea... 17 min

COVID-19 Info Prevention

Maintain a distance of 6 feet (2 meters) between yourself and others.

cdph.ca.gov



Intersection



RESILIENCE AND CLIMATE ADAPTATION

GOALS

- > Increase responsiveness to shocks or stressors that impact Metro services to maintain a safe, reliable, equitable and comfortable experience for our customers, even as the climate changes over time.
- > Expand Metro's leadership as a key partner in establishing a regional resilience network.

TARGETS

- 1 Identify all acute shocks or stressors for critical and/or vulnerable areas at or near Metro infrastructure by 2025.
- 2 Implement the flexible adaptation pathways concept to incorporate climate adaptation into planning, procurement, asset management and operations by 2025.
- 3 Prioritize improvements to locations, facilities, infrastructure, equipment and operations to reduce risk.

3.9 Overview

Metro understands that planning for uncertainty is challenging but essential. Projections for changes in climate, population, land use, technology and other factors can influence how the Metro system is planned, used and operated. It is therefore important to develop solutions that can be implemented gradually and modified as new information becomes available, thus minimizing cost and disruptions to service, while providing safe and comfortable transit for a growing population.

Metro's service and continuity have the potential to affect several million people directly or indirectly. As the climate changes, it will be critical to not only maintain reliable and consistent service but also increase passenger comfort and safety. To reduce the potential of service disruption, we have been assessing the resiliency of our systems against the anticipated changes to climate since 2012 and are developing an *All-Hazards Mitigation Plan* that comprehensively assesses natural hazards. This plan will develop strategies to mitigate hazards, maintain system reliability and build regional resilience in the communities we serve.

Metro, along with a growing number of other agencies and jurisdictions, is pursuing an approach known as *flexible adaptation pathways*, a conceptual framework that can guide decisions about where, when and how to select climate adaptation actions, while providing the flexibility needed for the future. Using this approach, we will identify and set thresholds for action, as well as metrics to evaluate system resilience.

In using the flexible adaptation pathways concept, we recognize that resilience is best achieved through multiple strategies that are evaluated and implemented in stages over time, as background conditions, risks, exposure and technology change. Using the pathways approach has several advantages. It reduces the risk of being under or over prepared at unnecessary cost. It encourages proactive, rigorous and transparent monitoring to ensure that action is taken at the appropriate time, while safeguarding against unexpected climate events. A flexible pathways approach enables us to identify a range of potential paths forward and to recognize the pros and cons associated with each approach. This allows us to enhance system resilience, providing a safe and reliable service for our riders.



TARGET 1

Identify all acute shocks or stressors for critical and/or vulnerable areas at or near Metro infrastructure by 2025.

The services Metro provides are a crucial part of LA County infrastructure and disruptions to service have the potential to impact millions of people. In addition to addressing climate concerns, we are committed to reducing the risk of impacts to the system from natural and human-induced hazards. We will identify potential acute or chronic hazards to critical and/or vulnerable assets through assessments like the Triennial Threat and Vulnerability Assessment Program, all hazard mitigation planning efforts and climate vulnerability assessments.

TARGET 2

Implement the flexible adaptation pathways concept to incorporate climate adaptation into planning, procurement, asset management and operations by 2025.

The flexible pathways approach creates a structure for thoughtful, incremental integration of clear adaptation strategies into Metro business units by identifying alternatives and establishing triggers for action. This process will be supported

by a monitoring program that evolves over time as data and information become available. Integrating this approach into Metro's state-of-the-art asset management, project planning processes and maintenance practices will minimize risk to business continuity.

TARGET 3

Prioritize improvements to locations, facilities, infrastructure, equipment and operations to reduce risk.

Metro understands that resilience-related investments need to be carefully evaluated and planned to provide the greatest benefit and reduction in risk to its users. Resilience investments will address physical assets and social vulnerability, so that we can make informed and strategic decisions about where and when to invest in measures that increase local and systemwide resilience. We will develop and prioritize improvements to critical infrastructure and in EFCs. Improvements to reduce risks may include increasing redundancy of communication systems, installing back-up power, coordinating regional multi-agency resilience programs or preparing to provide resources to meet employee and patron needs post-disaster.

What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

Resiliency Indicator Framework

In 2015, Metro released the *Resiliency Indicator Framework* that established a mechanism to measure and evaluate climate adaptation priorities to ensure infrastructure resilience and maintain a good state of repair. These indicators could have a broad multi-hazard application across Metro since they facilitate continual improvement and allow us to track the effectiveness of our planning, construction and operations to increase agency-wide resilience.

All-Hazards Mitigation Plan

The *All-Hazards Mitigation Plan* is an interdepartmental effort to improve Metro's resiliency to natural hazards. The plan identifies all assets, their threats and vulnerabilities and ways to reduce and/or mitigate potential hazards—or limit the negative effects of such natural hazards—to Metro's operations. The goal is to identify actions that will minimize or eliminate threats from major hazards impacting Metro properties and to secure eligibility to pursue additional federal funding.

Transportation Mutual Assistance Compact (TransMAC)

The TransMAC is a mutual aid compact of more than 20 Southern California transit agencies designed to streamline the transit mutual aid process to respond to planned and unplanned emergencies and events. Currently, a resource guide based on a Metro-developed template is being compiled to identify the types of resources owned by transit entities (i.e., vehicles, fuel, equipment, personnel) and associated costs to ensure requestor and provider parties are aligned during emergencies.

Earthquake Early Warning System








Metro's Emergency Management and Information Technology Services (ITS) departments are working together to expand the current U.S. Geological Survey (USGS) ShakeAlert earthquake early warning system. Phase One went live in 2018 to alert Metro Rail Operations Control Center of pending ground shaking to minimize train derailments and injuries on the system. Phase Two is underway and expands access of the warning system to all employee-occupied facilities, including all bus and rail divisions, locations and Gateway headquarters. Phase Three is planned to expand the system to all buses.

Enterprise Geographic Information System (GIS) Platform for Spatial Data Management






As of July 2019, ITS is leading the initiative to consolidate disparate GIS systems across the agency, in collaboration with teams from Planning, Maintenance-of-Way, Industrial Hygiene, ECSD, Real Estate, Security, Engineering and the Enterprise Asset Management System (EAMS) project. This initiative is especially critical for the EAMS and Real Estate Management System (REMS) projects in order to standardize and manage spatial data in a connected environment. This platform will enhance the evaluation and mitigation of risks to Metro's assets and resources, using better analytical and visual tools to see the big picture for resilience. It will also support connectivity to Metro's strategic partners and an improved decision-making framework within the region.






This plan will develop strategies to mitigate hazards, maintain system reliability and build regional resiliency in the communities we serve.

PLANNED STRATEGIES AND ACTIONS

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
<p>Conduct and maintain a multi-hazard risk assessment to understand vulnerabilities of the transportation system</p> 	1.1 Regularly perform detailed natural and anthropogenic risk assessments for all critical Metro properties, assets and operations.		Emergency Management
	1.2 Assess climate change hazards to the transportation system, with an emphasis on EFCs, utilizing best available data from recognized sources like CalAdapt, FEMA, USGS and other research institutions.		ECSD Planning
	1.3 Develop an Energy Resiliency Policy.		ECSD
	1.4 Identify data gaps for all-hazards at Metro properties, assets and operations to improve vulnerability and risk assessment.		ECSD Emergency Management Planning
	1.5 Create and integrate climate hazard data into a geodatabase enterprise for use by relevant departments.		ITS
	1.6 Deploy and manage an enterprise GIS platform with appropriate infrastructure and applications to enable better data sharing.		ITS

KEY: COMPLETION OF STATUS






				
in development	started	up to 25%	up to 50%	up to 75%

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
<p>Incorporate considerations for all-hazards into Metro decision-making about capital planning, procurement, asset management and operations</p> <p>R2</p>	<p>2.1 Develop prioritization criteria for the implementation of all-hazards mitigation actions across the transportation system, leveraging existing decision-making support tools such as the Transit Asset Management/State of Good Repair Program and focusing efforts by utilizing evaluation criteria like EFCs.</p>		<p>ECSD, Emergency Management, Planning, Enterprise Transit Asset Management, Engineering</p>
	<p>2.2 Develop and implement a climate adaptation decision support framework (flexible adaptation pathways) that defines triggers for adaptation actions.</p>		<p>ECSD</p>
	<p>2.3 Develop a monitoring system allowing Metro to adjust the adaptation approach over time as climate science data improves.</p>		<p>ECSD</p>
<p>Regularly update resilience and climate adaptation plans and policies to address changing hazards and risks to system service</p> <p>R3</p>	<p>3.1 Regularly update Metro Continuity of Operations, <i>All-Hazards Mitigation Plan</i> and related reports, incorporating new data and information about the type and duration of hazards and make corresponding updates to the mitigation strategies.</p>		<p>Emergency Management</p>
	<p>3.2 Integrate and apply the <i>Resiliency Indicator Framework</i> into the EMS process.</p>		<p>ECSD Emergency Management, Operations</p>






STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
<p>Implement hazard mitigation and climate adaptation strategies to increase transportation system resilience and passenger safety</p> <p>R4</p>	4.1 Adjust existing bus and rail operations to minimize the impacts of hazards to revenue service.		Operations ECSD, Emergency Management
	4.2 Include climate resilience of materials in the Sustainable Acquisition Program (e.g., heat, water-, fire-resilient materials).		V/CM
	4.3 Institute a Reliability-Entered Maintenance Program for critical systems to track persistent maintenance and repair issues.		Asset Management Engineering, Planning, Operations
	4.4 Pilot and implement earthquake early warning systems for train vehicles and facilities, including Metro shake alert mobile application.		Emergency Management ITS, Operations
	4.5 Deploy emergency supply kits and communication devices at key locations and facilities.		Emergency Management
	4.6 Protect and harden Metro infrastructure to better withstand hazards.		ECSD, Engineering, Planning, Emergency Management, Operations
	4.7 Identify opportunities to relocate or re-site Metro infrastructure and services to avoid hazards.		Planning Operations, ECSD
	4.8 Increase passenger comfort and safety through shading and cooling features at transit stations, ensuring HVAC equipment functionality on Metro buses, and identifying and partnering with local municipalities with jurisdiction over sensitive bus stops.		Emergency Management Planning, Operations
	4.9 Implement the Safety Review Standard Policy for activities that may contain HAZMAT or HAZCON.		Corporate Safety

KEY: COMPLETION OF STATUS

in development	started	up to 25%	up to 50%	up to 75%

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
<p>Develop and implement all-hazards-related trainings for Metro staff and partners to further advance a culture of sustainability</p> <p>R5</p>	<p>5.1 Develop and update trainings for Metro staff regarding hazard identification and mitigation, increasing resilience and emergency procedures.</p>		<p>Emergency Management Talent Development</p>
	<p>5.2 Regularly update the Employee Personal Preparedness Guide.</p>		<p>Emergency Management</p>
	<p>5.3 Identify key internal staff with a role in all-hazards mitigation and convene regularly to track key vulnerabilities and opportunities.</p>		<p>Emergency Management ECSD</p>
	<p>5.4 Provide climate adaptation and resilience training to contractors and engineers.</p>		<p>ECSD</p>
	<p>5.5 Identify, train and state certify additional licensed professionals (engineers, architects, building inspectors, etc.) to expand Metro’s Safety Assessment Program Teams for evaluations of Metro’s structures in the aftermath of a disaster; provide refresher trainings as needed, along with drills to maintain resilient and responsive Safety and Damage Assessment Teams.</p>		<p>Emergency Management</p>

KEY: COMPLETION OF STATUS

 <p>in development</p>	 <p>started</p>	 <p>up to 25%</p>	 <p>up to 50%</p>	 <p>up to 75%</p>
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STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
<p>Build a greater LA resilience network</p> <p>R6</p>	<p>6.1 Maintain the TransMAC and other information sharing mechanisms with relevant agencies.</p>		<p>Emergency Management</p>
	<p>6.2 In conjunction with health care providers, first responders and other emergency managers, develop redundant transportation service plans in EFCs to be deployed after a disaster.</p>		<p>Emergency Management Operations, Corporate Safety</p>
	<p>6.3 Maintain a coordinated, multilingual public awareness campaign to educate and engage the public about hazard risks, preparedness and safety on or around Metro’s system.</p>		<p>Marketing and Communications Safety, Emergency Management ECSD</p>
	<p>6.4 Establish real-time communication protocols and tools for use during hazard events (e.g., Metro’s earthquake early warning system).</p>		<p>Emergency Management Operations, ITS, Marketing and Communications</p>
	<p>6.5 Partner with regional leaders to provide real-time information on resources available for short term shocks, such as extreme heat or poor air quality warning days.</p>		<p>Emergency Management Operations, Marketing and Communications</p>
	<p>6.6 Improve digital infrastructure to communicate emergency and service disruption information to riders.</p>		<p>Marketing and Communications Operations, Emergency Management</p>
	<p>6.7 Coordinate with regional agencies and local partners involved in resilience planning, such as LA County, City of LA, SCAG, LADWP, Caltrans, the Councils of Governments, and other cities and municipalities to collaborate and partner to leverage resources.</p>		<p>ECSD Planning OEI</p>
	<p>6.8 Coordinate with local jurisdictions and licensed and certified Safety Assessment Program members to evaluate structural integrity of retrofit systems and buildings to withstand seismic activity, including collapse threats from other non-Metro structures to Metro structures, transit-ways and support facilities.</p>		<p>Emergency Management Planning Engineering</p>
	<p>6.9 Develop program guidelines and pilot an urban greening competitive grant program.</p>		<p>Planning ECSD</p>

WE WILL TRAIN TODAY FOR THE WORK OF TOMORROW.

Because innovation and continual improvement are cornerstones of a robust economy, Metro is preparing our employees to reach for new kinds of work, setting the stage for a vibrant future.





ECONOMIC AND WORKFORCE DEVELOPMENT

GOALS

- > Provide opportunities for continual career growth within the agency.
- > Prepare for the talent needs of the future.
- > Utilize Metro investments to support the regional economy and increase opportunity for LA County residents.

TARGETS

- 1 Review job classifications on a regular basis and eliminate obsolete requirements that create barriers to career advancement.
- 2 Recruit employees from diverse sources, including vocational schools, community colleges, groups supporting formerly incarcerated persons, and organizations supporting persons with disabilities and older adults.
- 3 Achieve triennial DEOD contracting goals related to small, disadvantaged and veteran-owned businesses.

3.10 Overview

The economic impact of transit on the economy includes job creation, resource procurement, economic output and the ability to catalyze investment and development. Metro's investments in new infrastructure and ongoing expenditures related to operating our existing transportation system can generate high-quality employment, new career pathways and business opportunities for a wide array of residents and businesses. Measure M is projected to generate more than 778,000 new job opportunities in the transportation industry over the next 40 years.

Metro is investing in the future of the LA region, which starts with investing in our greatest asset— people. We must expand our highly skilled and diverse workforce to meet this expected workforce demand, recognizing that as of today 46% of Metro's workforce will be eligible for retirement over the next five years. Succession planning is crucial to maintaining business continuity and Metro needs qualified professionals to deliver our aggressive infrastructure program over the coming decades. To meet the ongoing need for talent and expertise, we are creating clear pathways for existing employees to advance their careers while we expand our recruitment efforts and create proactive pipelines and equitable access to opportunity for the next generation of employees to follow.

TARGET 1

Review job classifications on a regular basis and eliminate obsolete requirements that create barriers to career advancement.

Job classifications will be reviewed regularly to ensure that minimum requirements related to education, expertise, experience and capacity are appropriate and align with industry standards. Descriptions will ensure that potentially qualified applicants are not dissuaded from applying or unintentionally screened out of consideration for positions.

TARGET 2

Recruit employees from diverse sources, including vocational schools, community colleges, groups supporting formerly incarcerated persons and organizations supporting persons with disabilities and older adults.

In this era of expansion, we must attract, develop and retain expertise to further the agency's innovative work. Recruitment efforts should be multi-faceted and engage those groups and communities that Metro has traditionally had difficulty reaching. We recognize the need for a well-trained workforce to build, run and maintain our growing transportation system. We are investing in preparing local residents, often from underrepresented populations, for positions with Metro and in the transportation industry as a whole.

TARGET 3

Achieve triennial DEOD contracting goals related to small, disadvantaged and veteran-owned businesses.

Metro will increase efforts to provide access to opportunity for local businesses, SBE, women-owned businesses, DBE and/or DVBE at Metro. We know from experience that the ingenuity, innovation and expertise of such businesses are the forefront of our region's economic development. Metro needs to harness this workforce in order to build, operate and maintain our fast-growing transportation system. Agency-wide, Metro's SBE goal is 30%, DBE goal is 27% and DVBE goal is 3%.



What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

Environmental Training Institute (ETI)

ETI offers environmental and sustainability-focused trainings and certifications designed to build support for sustainability initiatives, ensure regulatory compliance and foster an agency-wide culture of sustainability. ETI not only ensures the success of Metro's sustainability program over time, but also helps develop a regional workforce equipped for the expanding green economy. ETI includes the MECA online training for contractors, environmental compliance training for employees and the GGW Program. The GGW program offers courses in environmental concepts for employees and the public, and environmental compliance training for employees. Through ETI, Metro is driving a cultural revolution and transforming Metro employees and community members alike into agents of change.

Workforce Initiative Now (WIN-LA)

WIN-LA launched in 2018 to attract, hire and grow a world-class transportation workforce locally from the communities of LA County. WIN-LA creates career pathways in construction and non-construction operations and maintenance, administration and professional services within Metro and throughout the transportation industry. The program provides support in areas including life skills development, skill set enhancement and educational attainment services. WIN-LA increases resources needed for training and placement focused on traditionally hard-to-fill positions in our industry.

Metro leverages the successful outcomes of our Project Labor Agreement and Construction Careers Policy (PLA/CCP) to deliver construction career opportunities and a collaborative model of trainers, service providers and partners to identify, assess, train and employ WIN-LA participants for career pathways in construction and non-construction.

E3 (Expose – Educate – Employ) Initiative and Transportation School

The mission of E3 is to prepare LA County youth for career and college pathways in the global transportation infrastructure industry by teaching them transferrable STEAM (Science, Technology, Engineering, Arts and Math) based industry skills. The centerpiece of the E3 Initiative is Metro's Transportation School, designed to prepare students for STEAM careers with a specialized focus on the transportation and infrastructure industries. This program also includes paid externships for teachers and supports BridgeBuilders, a program for high school students in South LA. To maximize its potential

impact on LA County youth, Metro also plans to offer a range of supplemental E3 programs that complement the school program, providing students direct exposure, education and real-world work experience.

Transportation Career Academy Program (TCAP)

TCAP provides paid summer internships to junior and senior high school students who are transit dependent, reside in LA County, live near a Metro rail station and whose school is located near Metro's rail expansion efforts. TCAP offers students an opportunity to learn about careers in transportation and apply classroom theories and concepts to real work situations. Interns establish professional relationships with mentors who provide on-the-job guidance and help students explore their interests in the industry.

Project Labor Agreement/Construction Careers Policy

Metro adopted the Construction Careers Policy in conjunction with the Project Labor Agreement to encourage construction employment and training opportunities to those who reside in economically disadvantaged areas on Metro construction projects. The agreement applies to certain local and federally funded construction projects with a construction value greater than \$2.5 million.




Measure M is projected to generate more than 778,000 new job opportunities in the transportation industry over the next 40 years.

PLANNED STRATEGIES AND ACTIONS






STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Eliminate barriers to career pathways and advancement EW1	1.1 Review hiring and advancement criteria for relevance to current tasks.		Talent Development Civil Rights & EEO, Talent Acquisition
	1.2 Identify and eliminate barriers or bias in current job descriptions.		Talent Development Civil Rights & EEO, Talent Acquisition
	1.3 Review and update policies, procedures and practices to eliminate barriers or bias.		Talent Development Civil Rights & EEO, Talent Acquisition
Reach out to traditionally underrepresented communities about hiring opportunities EW2	2.1 Create effective, targeted communication to communities typically unresponsive or under-represented in hiring practices.		Talent Development Civil Rights & EEO, DEOD, PEDM, Talent Acquisition
	2.2 Retain employees from targeted communities through authentic engagement.		Talent Development Civil Rights & EEO
	2.3 Establish a Board policy based on the tenets of WIN-LA.		DEOD PEDM
Offer quality training on skills needed for Metro's future workforce EW3	3.1 Evaluate efficacy and expand the E3 and Transportation School initiatives.		Talent Development
	3.2 Raise awareness about Metro as a future employer with local junior colleges and universities.		Talent Development
	3.3 Offer vocational opportunities that combine classroom learning with field experience.		Talent Development
	3.4 Develop training that will be needed by future employees.		Talent Development
	3.5 Leverage GGW and MECA with WIN-LA and other programs to increase sustainability-based skills across LA County.		Talent Development DEOD, PEDM
	3.6 Offer sustainability and environmental stewardship curriculum as part of E3 and Transportation School programs.		Talent Development

KEY: COMPLETION OF STATUS

in development	started	up to 25%	up to 50%	up to 75%

STRATEGIES	ACTIONS	STATUS	RESPONSIBILITY
Increase awareness of Metro opportunities among SBE, DBE and DVBE firms EW4	4.1 Provide assistance in navigating the Metro business registration and procurement process.		DEOD
	4.2 Reach targeted businesses through workshops, various forms of media and trade organizations.		DEOD
Increase the region's economic viability and growth EW5	5.1 Complete the Goods Movement Strategic Plan.		Planning

KEY: COMPLETION OF STATUS

				
in development	started	up to 25%	up to 50%	up to 75%



WE WILL FOSTER CONNECTED COMMUNITIES.

The choice to use public transportation requires a safe, convenient and enjoyable trip. We're committed to helping communities plan and build dynamic, transit-supportive places where riding together is integral to our daily lives.





Photo: Scott Oshirna



CONNECTING TRANSIT AND COMMUNITY

3.11 Overview

In order to create a more sustainable LA County, Metro must leverage its role as a transportation planner to support our vibrant communities and promote healthy, equitable and livable neighborhoods. In livable neighborhoods, multimodal transportation networks are effectively combined with community development and land use patterns that include a range of housing options (including affordable housing), neighborhood amenities, recreation and social services, economic centers and cultural centers.

The effective integration of public transportation and land-use planning promotes local land use and urban design patterns that meet community needs and make it easier for people to drive less and access transit more, thereby improving sustainability outcomes.

The design and location of public transportation routes, stops and stations have an impact on patterns of growth and development, and should be informed by current and anticipated future factors. Creating convenient connections between transportation modes, including bicycling, walking and efficient transfers, promotes transit as a viable alternative to driving. In addition, physical activity associated with accessing transit can enhance public health, both physical and mental. Partnerships with local agencies and governments are critical to realizing these benefits.

To create more livable neighborhoods, transit and other mobility investments must be integrated with broader strategies to create compact, complete and connected neighborhoods; preserve and create affordable housing; provide local services and jobs and ensure that transit facilities can be accessed in a safe and convenient manner. When combined with land use and design decisions that recognize the value of transit, these strategies can produce livable places that promote health and opportunity.

In 2018, the Metro Board of Directors adopted the Transit Oriented Communities (TOC) Policy as an affirmation of the importance of incorporating considerations of equity, community development and land use in how Metro plans the transit system. The TOC Policy outlines Metro's definition of a TOC, defines areas where Metro leads and where the agency supports others in realizing TOCs and TOC activities that are eligible for local return. Local Return funds are a portion of the transportation funds derived from sales taxes that are re-allocated to the county's local governments.

Metro has been working with stakeholders in developing the TOC Implementation Plan, establishing how Metro will partner with others to create equitable TOCs in LA County. Release of the TOC Implementation Plan is anticipated in fall of 2020. The plan is organized under the four following initiative areas:

1. Creating TOC Corridor Baseline Assessments For All Measure M Transit Corridors

Metro proposes to create TOC Corridor Baseline Assessments (Baselines) for every Measure M Transit Corridor, in partnership with local jurisdictions and with stakeholder engagement throughout the entire process.

The Baselines will focus on the communities surrounding transit corridors and provide a snapshot of existing demographic characteristics, an inventory and assessment of existing jurisdiction TOC-related policies, and a series of recommended strategies that jurisdictions can pursue, with Metro support.

2. Continually Improving Metro TOC Programmatic Areas

Metro's TOC Programmatic Areas include Joint Development, First/Last Mile, Systemwide Design and TOC Strategic Initiatives. Through the TOC Implementation Plan, Metro seeks to continuously improve these programmatic areas and align them with the TOC Policy goals.

3. Improving Metro's Internal Coordination

Our work in this area identifies a series of internal collaboration opportunities that Metro can undertake to create equitable TOCs in areas within Metro's functional jurisdiction, i.e. identifying joint development sites and incorporating TOC goals and tasks in the Measure M corridor delivery process.

4. Strengthening Coordination and Collaboration with Metro Partners

Many of the community development policies and programs that are integral to creating TOCs are outside of Metro's functional jurisdiction. Metro will use a series of strategies to strengthen coordination and collaboration with partners, such as municipalities, in order to create equitable TOCs.

What We've Done

ACHIEVEMENTS AND ONGOING INITIATIVES

First/Last Mile Planning

Since 2016, Metro has been preparing groundbreaking first/last mile solutions based on the award-winning First/Last Mile Strategic Plan. The plan outlines a range of strategies to improve primary access to transit. Improvements such as pedestrian and bicycle safety and seamless interfaces between the Metro system and other modes of travel can now be experienced in our first-of-its-kind New Blue Improvements Project, completed in 2020. This 22-station project was planned in partnership with community-based organizations.

NextGen Bus Study

In 2018, Metro launched the NextGen Bus Study, aiming to re-imagine and restructure the agency's bus system to better meet the needs of current and future riders. This project is the first major overhaul of the bus network in 25 years and includes extensive community engagement. The outcome of NextGen will be a bus network that is more relevant, reflective of and attractive to LA County residents. Updates to the system are scheduled to be implemented by the end of 2020.

Bike Share

The Metro Bike Share Program launched in the summer of 2016 and provides impactful first/last mile solutions for Angelenos across the county. This program offers convenient round-the-clock access to a fleet of over 1,000 bicycles at 90 different stations that are available for riders 365 days a year. Riders can unlock bicycles using the same regional TAP card that provides them access to the Metro bus and rail system and over 20 other TAP-enabled systems in LA County. Additionally, the fleet of smart Metro Bikes and e-bikes can be unlocked using the official Metro Bike Share mobile app. The rapidly expanding program currently serves Downtown LA, the San Fernando Valley, the Port of LA and the Westside with more locations to come. To date, over 1,000,000 trips have been made with Metro Bike Share in LA County. Since the program launch, riders have collectively pedaled over 2.4 million miles and reduced over 2.3 million pounds of CO₂ emissions from the air.⁸

Transit to Parks Strategic Plan

In 2019, Metro adopted the *Transit to Parks Strategic Plan* providing a systematic vision for increasing access to parks and open spaces across LA County. The purpose of the plan is to find targeted, holistic ways to increase access to these spaces,

especially for communities with demonstrated need. The plan showcases Metro's mobility-based definition of park access need and analyzes this need by focusing on countywide issues and opportunities. It evaluates prior programs, pinpoints best practices that can be applied locally and recommends cost effective strategies for both Metro and partner agencies.

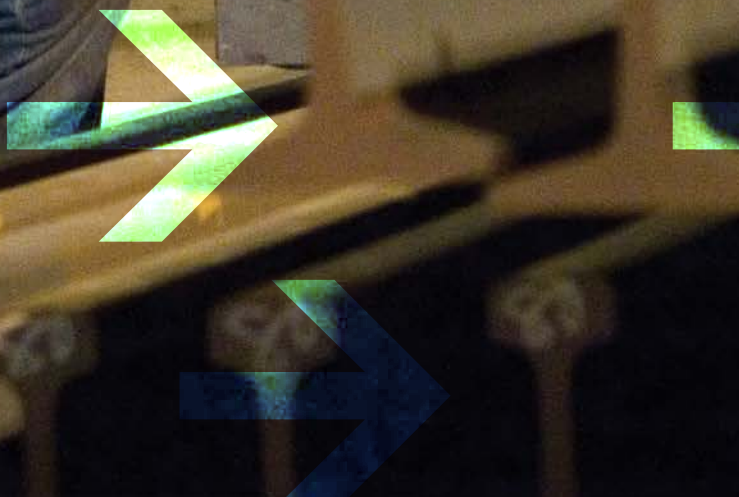
In 2018, the Metro Board of Directors adopted the Transit Oriented Communities (TOC) Policy as an affirmation of the importance of incorporating considerations of equity, community development and land use in how Metro plans the transit system.

8. <https://bikeshare.metro.net/about/data/>



WE WILL RAISE THE BAR.

Moving Beyond Sustainability establishes a new perspective for Metro. It's a path of increasing leadership and greater collaboration within our organization, in concert with our partners and—most of all—with our community.





HOW WE'LL GET THERE

Metro has built a robust sustainability program since its inception over a decade ago. In order to move beyond sustainability, we are adopting ambitious goals and timelines. We will need to be nimble and adaptable as we move forward during these unprecedented times. To achieve our sustainability goals, Metro is committed to working internally and with external partners and stakeholders to implement *Moving Beyond Sustainability* strategies and actions. ECSD and Planning have already started implementing some of the actions and strategies outlined, as evidenced by completion status indicators within this document, while others will go through an annual implementation planning process. This process includes an estimation of capital costs and staff resources and the development of key milestones for projects and programs. The CSO will ultimately work with ECSD and Planning to prepare an *MBS Implementation Plan (MBS-IP)* and assemble resources to do so, and will directly oversee the implementation process each year.

TENTATIVE FISCAL YEAR MILESTONES

QUARTER	TENTATIVE FY MILESTONES
Q1	Identify capital projects for the next FY. Workbooks will be developed for each capital project and submitted to the CSO for review and approval. The CSO will submit approved workbooks to OMB for inclusion in the FY Capital Program.
Q3	Identify potential Task Orders (TO) and their estimated cost (ROM) for the next FY; some of these potential TOs will support new capital projects identified in Q1 and others may be continuing capital projects. The proposed TOs will be submitted to the CSO for approval/incorporation into the annual budget.
Q3	Recap and analyze the capital projects and TOs developed in Q1 and Q3; review and update <i>MBS</i> ; identify potential sustainability projects for the next FY Sustainability Capital Funds (out of cycle).
Q4	Prepare Statements of Work (SOW) for the TOs identified in Q3 and submit to the CSO for review and approval. Approved SOWs are sent to the appropriate consultant team for development of Cost and Schedule Proposals (CSP) and to Metro's Cost Estimator for preparation of an Independent Cost Estimate (ICE).
Q4	Receive CSPs from the consultant teams and ICEs from the cost estimator and conduct fact finding (if needed). Sustainability staff prepares TO worksheet and other procurement documents and submits them to the CSO for review and approval. Approved CSPs/TO packets are sent to Metro's Contract Administration and Project Controls for processing.
Q1 (New FY)	Check the cumulative value of new TOs against the amount budgeted in the various Sustainability project numbers to ensure sufficient funds are available for all new TOs (if there are insufficient funds, then some of the new TOs will be delayed to the next FY). The new TOs are executed and sustainability staff prepares requisitions for the amount to be expended in the current FY.

4.1 How This Plan Will Be Used

MBS Implementation Plan

The strategies and actions identified in *MBS* offer a set of initiatives Metro will implement to advance sustainability. A review of these initiatives will be performed annually to identify ongoing and new *MBS* initiatives to be pursued in the coming fiscal year (FY). These initiatives will be prioritized using our guiding principles defined in chapter one.

Metro will review best practices and innovations when prioritizing actions for the coming fiscal year and make adjustments and course corrections as necessary. The selected *MBS* initiatives will be compiled into an annual *MBS-IP*, which will serve as a project development, implementation and monitoring tool.

Implementation Program Costs

The selected actions and projects will be analyzed and evaluated in order to identify resource and staffing requirements, budgetary needs and other factors influencing the associated

projects and program costs. This information will be used by Metro to develop its sustainability capital project and operating budget requests for the coming FY. Additionally, we will secure state and federal grants, utility incentive programs and mutually beneficial financial partnerships to augment the annual budget.

MBS-IP Procedure and Milestones

Projects and actions aligned with this strategic plan will be reviewed annually to determine those to pursue each fiscal year. See the Tentative Fiscal Year Milestones Table for the annual review process guidelines.

4.2 How to Measure Success

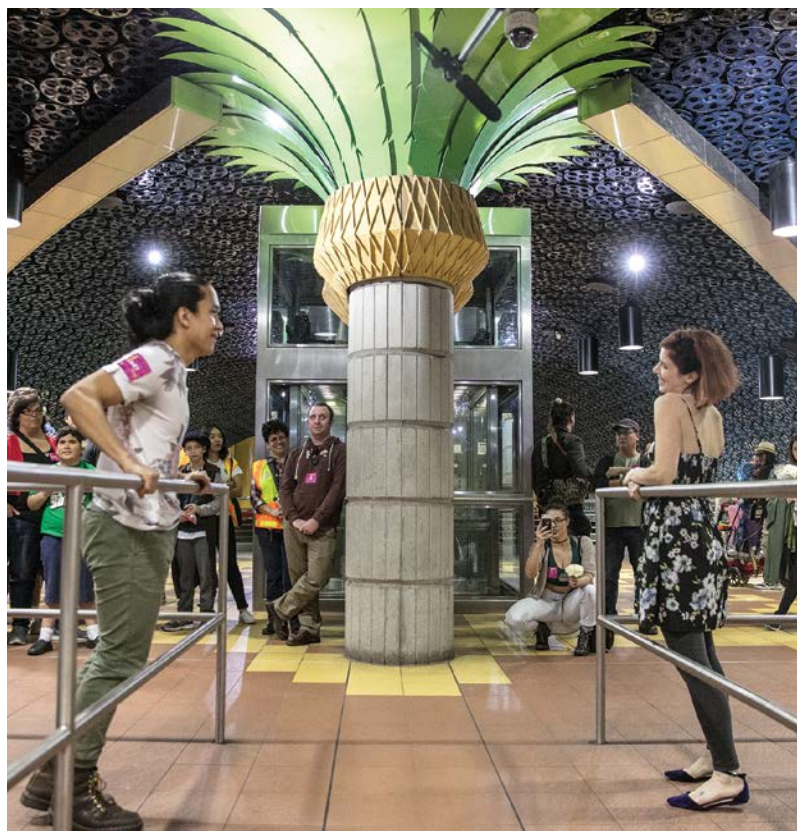
Performance Reporting

The strategies and actions in this plan are tied to measurable performance metrics and time-bound targets. Progress on the metrics and the targets will be reported annually through Metro's online Sustainability Dashboard, and formally reported every two years in Metro's *Sustainability Performance Report*. Producing formal reports every two years enables Metro to better understand and communicate the impact of sustainability initiatives on our performance over time.

As part of the reporting process, Metro will revisit the targets set in the *MBS* and develop revised or more metrics as new technologies and frameworks emerge to better monitor and communicate our progress. In addition, Metro will adopt and implement a decision matrix, drawing from the flexible adaptation pathways concept to help prioritize the mitigation of different environmental impacts (i.e., GHG emissions, energy consumption, water consumption, etc.) and determine if performance metrics and targets must be revised. Any such revisions to performance metrics and targets will be addressed and communicated via the biennial *Sustainability Performance Reports*.

4.3 Outreach and Communication

Public outreach, engagement and communication are essential to ensuring that the successes we achieve are in line with the expectations of the wider public. In drafting *MBS*, we engaged with partners and valued stakeholders along the way from various community-based organizations, city and county



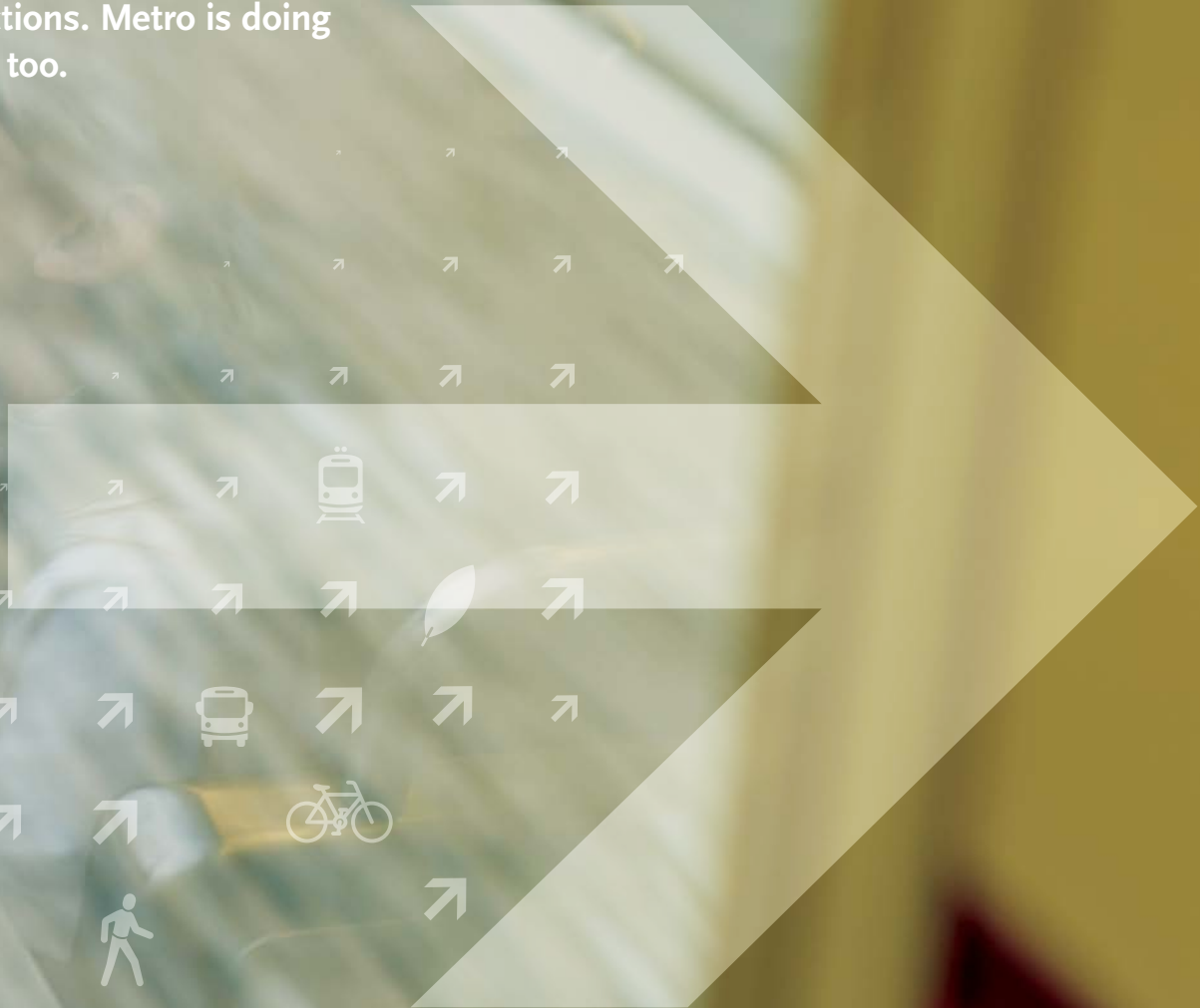
sustainability staff and local government organizations. We are looking forward to maintaining those partnerships as we move forward in implementing our plan. These efforts will be informed by the Equity Platform in order to authentically engage with our riders and the communities we serve.

Metro's commitment to serving LA County extends beyond transportation infrastructure. Metro is dedicated to engaging with the community in transformative ways and providing resources that advance connectivity, equity and economic opportunity to improve quality of life.



WE WILL GET THERE, TOGETHER.

Each of us has a part to play in creating a better LA County. It starts with the choice to walk, bike, carpool or take transit, and flows easily into other everyday actions. Metro is doing our part. You can too.



A PRECEDENT-SETTING UNDERTAKING

Moving Beyond Sustainability is an ambitious, aspirational and precedent-setting undertaking. It reflects Metro's commitment to continual improvement. Fulfilling this commitment will require reviewing and updating internal standards and procedures, providing staff with education and training, capturing opportunities across all plans and projects, and working as a collaborative partner with the residents of LA County. As Metro assembles the expertise, partnerships and funding to implement this plan, it will be essential to both celebrate incremental success and acknowledge that the long-term work is never complete.

The thoughtful procurement and management of energy, water and materials remains at the core of our sustainability programs. *MBS* builds on this foundation establishing a unified approach to sustainability that integrates emerging topics, such as equity, economic opportunity and resilience. *MBS* also emphasizes the need for collaboration so that the transportation system can become the backbone of efforts to create low-carbon, equitable and healthy communities; enable access to opportunity; and support ridership on Metro's growing system. This expanded understanding of sustainability is integral to our role as an innovative agency in Southern California and the nation.

MBS charts the path for sustainability over the next decade by outlining clear goals, strategies and actions. Whenever possible, quantifiable targets are provided. In some instances, where sufficient background data is not available or the ability to implement the actions is dependent on other entities or agencies, qualitative or process-based targets are provided. As more data or definition about these parts of the plan become available, quantitative targets can be developed.

MBS is a precedent-setting undertaking, and in light of COVID-19 and other external pressures, Metro will need to rely heavily on adaptive design principles to meet its goals in a financially sustainable way. To date, ECSD and the sustainability program have prioritized cost neutrality, cost-effectiveness, revenue generation and value creation. Accordingly, the program has generated over \$100 million in revenue since 2015 and has been cost neutral since 2017. Metro has achieved this success by adopting low carbon technologies, monetizing green benefits and reinvesting savings from energy and water use reductions.

Staff developed a financial model to forecast the magnitude of net financial benefits from our sustainability and resiliency activities. Using this model, an analysis of the 2019 *Climate*

Action and Adaptation Plan strategies identified a potential net positive financial benefit of at least \$155M by 2030. To realize these benefits, the *CAAP* measures need to be executed, including a combination of operational, financial and delivery model modifications. This approach balances urgent priorities and opportunities that are influenced by the impacts of the COVID-19 pandemic with fiscal challenges from decreased revenue since March 2020.

The analysis we employed on the *CAAP* strategies will be applied to those outlined in *MBS*. This is a necessary step to ensure continued success and address short- and long-term solutions on a scale proportional to the challenges and goals in front of us. Self-generated funding will allow us to make strategic decisions to deploy the sustainable infrastructure necessary to achieve the goals outlined in this plan. Furthermore, we will be able to make investments that offer the greatest benefits to our communities and our ridership, create additional benefits for those beyond our service area and ultimately set a strong example for other transit agencies and industries striving to do the same or similar work.

Emerging Issues

Through *MBS*, Metro also recognizes that policies, priorities, rider needs, trends and technology are constantly evolving. We are aware of these and other emerging issues, and intend to track and report out on our progress on how these issues are addressed and integrated into our plan. These include but are not limited to:

- > Addressing COVID-19 and Recovery Task Force recommendations
- > Achieving our goals amidst and in response to an ongoing fiscal and economic crisis
- > Developments with highway infrastructure and active transportation funds
- > Managing retired diesel and CNG bus fleets and potential community impacts
- > New opportunities and developments in technology, funding and financing
- > Revisiting and incorporating learned lessons through our flexible adaptive pathways approach
- > Forthcoming plans and newly developed social and economic sustainability metrics



We will continue to improve our actions and strategies to achieve our goals based on new information. The goals indicate our long-term direction, while the strategies and actions to achieve them may shift in emphasis, timing or magnitude of application over the life of the plan.

Through diligence, smart decisions and innovation, Metro can achieve the goals laid out in this plan and, along the way, make major contributions to the sustainability, equity, health and resilience of LA County.

This expanded understanding of sustainability is integral to our role as an innovative agency in Southern California and the nation.

Acronyms/Abbreviations

APTA	American Public Transportation	ISO	International Organization for Standardization
AQMD	Air Quality Management District	ITS	Information Technology Services
BAU	Business as usual	IWMH	Integrated Waste Management Hierarchy
BMS	Building Management System	kWh	Kilowatt Hour
CAAP	Climate Action and Adaptation Plan	LADWP	Los Angeles Department of Water and Power
CARB	California Air Resources Board	LEED	Leadership in Energy and Environmental Design
CBOs	Community Based Organizations	L RTP	Long Range Transportation Plan
CEQA	California Environmental Quality Act	MBS	Moving Beyond Sustainability
CMF	Central Maintenance Facility	MBS-IP	Moving Beyond Sustainability Implementation Plan
CNG	Compressed Natural Gas	MECA	Metro Environmental Construction Awareness
CO₂	Carbon Dioxide	MRDC	Metro Rail Design Criteria
COVID-19	Corona Virus of 2019	MTCO_{2e}	Metric Tons of Carbon Dioxide Equivalent
CSO	Chief Sustainability Officer	MW	Megawatts
CSP	Cost and Schedule Proposal	NEPA	National Environmental Policy Act
DBE	Disadvantaged Business Enterprise	NOx	Nitrogen Oxides
DEOD	Diversity & Economic Opportunity Department	OEI	Office of Extraordinary Innovation
DVBE	Disabled Veteran Business Enterprise	OMB	Office of Management and Budget
E3	Expose – Educate – Employ	PEDM	Project Economic Development Management
EAMS	Enterprise Asset Management System	PM	Particulate Matter
ECSD	Environmental Compliance & Sustainability Department	PV	Photovoltaic
EEO	Equal Employment Opportunity Program	RNG	Renewable Natural Gas
EFCs	Equity Focus Communities	ROM	Rough Order of Magnitude
EMS	Environmental Management System	SBE	Small Business Enterprise
ETI	Environmental Training Institute	SCAG	Southern California Association of Governments
EV	Electric Vehicle	SOP	Standard Operating Procedure
FEMA	Federal Emergency Management Agency	SP	Sustainability Plan
FY	Fiscal Year	STEAM	Science, Technology, Engineering Arts and Math
GCP	Green Construction Policy	TCAP	Transportation Career Academy Program
GGW	Growing a Greener Workforce	TO	Task Order
GHG	Greenhouse Gas	TOC	Transit Oriented Communities
GIS	Geographic Information Systems	TransMAC	Transportation Mutual Assistance Compact
GWh	Gigawatt-hours	USGS	U.S. Geological Survey
HAZCON	Hazardous Condition	V/CM	Vendor Contract Management
HAZMAT	Hazardous Materials	VMT	Vehicle Miles Traveled
HVAC	Heating, Ventilation and Air Conditioning	WIN-LA	Workforce Initiative Now
ICE	Independent Cost Estimate		

Categories at a Glance

CATEGORY	GOALS	TARGETS	STRATEGIES	
WATER QUALITY AND CONSERVATION	Optimize and manage Metro's water use.	1. Reduce potable water use by 22% from the 2030 Business as Usual scenario.	W1	Identify and implement operational water conservation and efficiency projects.
			W2	Increase the use of non-potable water sources to offset potable water use.
			W3	Implement water monitoring and reporting systems.
			W4	Integrate water conservation and efficiency best practices into policies, Standard Operating Procedures (SOPs) and specifications.
			W5	Partner with other public agencies and community groups to advance regional water goals.
			W6	Develop strategic resources and collaborative relationships across the agency to advance the water program and drive behavior change.
	Manage wastewater and stormwater constructively.	2. Increase runoff infiltration and capture capacity for stormwater by 15% from 2020 levels.	W7	Implement best management practices to minimize stormwater runoff and keep stormwater clean.
			W8	Prioritize the infiltration, capture and/or use of stormwater.
			W9	Reduce pollutants in industrial wastewater.

CATEGORY	GOALS	TARGETS	STRATEGIES	
SOLID WASTE	Reduce Metro's waste disposal.	1.Reduce annual operational solid waste disposal 24% from 2030 Business as Usual scenario. 2. Achieve 50% landfill diversion rate for operational waste. 3. Achieve 85% construction landfill diversion rate.	S1	Implement operational waste prevention and material reuse programs, which support a circular economy.
			S2	Implement operational recycling and organics diversion programs, including those that support compliance with AB 939, AB 341, AB 1826 and SB 1383.
	S3		Establish and integrate best waste management practices into agency-wide operations.	
	S4		Establish comprehensive monitoring and reporting practices to drive continual improvement.	
	S5		Implement construction waste prevention and landfill diversion best practices.	
MATERIALS, CONSTRUCTION AND OPERATIONS	Demonstrate sustainable design and construction practices throughout all phases of capital improvement projects.	1. Achieve LEED Silver certification or higher for all new facilities over 10,000 square feet, and achieve Envision certification where LEED is not applicable. 2. Design and build 100% of capital projects to CALGreen Tier 2 standards. 3. Complete Sustainable Acquisition Program training/implementation and develop 2030 program targets for annual sustainable acquisition spend by 2022.	M1	Continually improve sustainability standards and requirements for project design and construction.
			M2	Pursue green certification standards for buildings and infrastructure construction.
			M3	Commission all projects to ensure optimal performance.
			M4	Expand the GCP and SP Programs.
	Optimize sustainable operations and maintenance of fleet, infrastructure and facilities.		M5	Implement the <i>Sustainable Infrastructure Engagement Process</i> on all major capital projects.
			M6	Develop and implement an agency-wide Sustainable Acquisition Program.
			M7	Integrate resource conservation, life cycle and efficiency considerations into Metro's operational policies, SOPs and specifications.
			M8	Develop and implement materials, construction and operations related training for Metro staff, partners and community to facilitate a culture of sustainability.

CATEGORY	GOALS	TARGETS	STRATEGIES		
ENERGY RESOURCE MANAGEMENT	Optimize and manage Metro's use of energy.	1. Reduce energy consumption by 17% at facilities from the 2030 Business as Usual scenario.	E1	Implement projects identified in the energy conservation project portfolio.	
			E2	Optimize BMS at all divisions and Gateway facility.	
			E3	Implement an agency-wide facility commissioning and retro-commissioning program.	
		2. Increase onsite renewable energy generation to 7.5 MW.	E4	Expand the onsite renewable energy portfolio.	
			E5	Develop supporting infrastructure for electric transportation.	
EMISSIONS AND POLLUTION CONTROL	Reduce regional GHG emissions. Reduce Metro's GHG and criteria air pollutant emissions.	1. Displace 903,000 MTCO ₂ e annually.	EP1	Transition Metro's fleet to zero emissions technology.	
			EP2	Decarbonize Metro's energy and fuel supply.	
		2. Reduce total GHG emissions by 79% from 2017 baseline.	EP3	Improve methodology for monitoring and measuring emissions.	
			3. Reduce total nitrogen oxides (NOx) emissions 54% from 2018 baseline.	EP4	Implement a scheduled maintenance program for stationary and mobile emissions sources in order to reduce emissions.
				4. Reduce total particulate (PM) emissions 62% from 2018 baseline.	EP5

CATEGORY	GOALS	TARGETS	STRATEGIES	
RESILIENCE AND CLIMATE ADAPTATION	<p>Increase responsiveness to shocks or stressors that impact Metro services to maintain a safe, reliable, equitable and comfortable experience for our customers, even as the climate changes over time.</p>	<p>1. Identify all acute shocks or stressors for critical and/or vulnerable areas at or near Metro infrastructure by 2025.</p>	R1	<p>Conduct and maintain a multi-hazard risk assessment to understand vulnerabilities of the transportation system.</p>
			R2	<p>Incorporate considerations for all-hazards into Metro decision-making about capital planning, procurement, asset management and operations.</p>
			R3	<p>Regularly update resilience and climate adaptation plans and policies to address changing hazards and risks to system service.</p>
		<p>2. Implement the flexible adaptation pathways concept to incorporate climate adaptation into planning, procurement, asset management and operations by 2025.</p>	R4	<p>Implement hazard mitigation and climate adaptation strategies to increase transportation system resilience and passenger safety.</p>
			R5	<p>Develop and implement all-hazards-related trainings for Metro staff and partners to further advance a culture of sustainability.</p>
	<p>Expand Metro’s leadership as a key partner in establishing a regional resilience network.</p>	<p>3. Prioritize improvements to locations, facilities, infrastructure, equipment and operations to reduce risk.</p>	R6	<p>Build a greater LA resilience network.</p>
ECONOMIC AND WORKFORCE DEVELOPMENT	<p>Provide opportunities for continual career growth within the agency.</p>	<p>1. Review job classifications on a regular basis and eliminate obsolete requirements that create barriers to career advancement.</p>	EWD1	<p>Eliminate barriers to career pathways and advancement.</p>
	<p>Prepare for the talent needs of the future.</p>	<p>2. Recruit employees from diverse sources, including vocational schools, community colleges, groups supporting formerly incarcerated persons and organizations supporting persons with disabilities and older adults.</p>	EWD2	<p>Reach out to traditionally underrepresented communities about hiring opportunities.</p>
			EWD3	<p>Offer quality training on skills needed for Metro’s future workforce.</p>
	<p>Utilize Metro investments to support the regional economy and increase opportunity for LA County residents.</p>	<p>3. Achieve triennial DEOD contracting goals related to small, disadvantaged, women and veteran-owned businesses.</p>	EWD4	<p>Increase awareness of Metro opportunities among SBE, DBE and DVBE firms.</p>
			EWD5	<p>Increase the region’s economic viability and growth.</p>

Acknowledgments

This plan was prepared by the Los Angeles County Metropolitan Authority (Metro), led by Metro’s Environmental Compliance & Sustainability Department and the Countywide Planning & Development Department. Several internal partners were involved in and supported the drafting of this plan.

METRO DEPARTMENTS

Asset Management	Facilities/Property	Office of Management	Service Planning
Building Services	Maintenance	& Budget	& Scheduling
Bus Maintenance	Federal/State Policy	Office of the Chief	Strategic Transit
Civil Rights & Equal	& Programming	Executive Officer	Asset Management
Employment Opportunity	Finance & Budget	Operations	System Security & Law
Communications	First/Last Mile	Operations Liaison	Enforcement
Community Relations	Human Capital	& Planning	Systems Engineering
Congestion Reduction	& Development	Parking Management	Systemwide Design
Construction Management	Information Management	Procurement	Talent Acquisition
Corporate Safety	Information Technology	Program Control	Talent Development
Countywide Planning	Services	Program Management	Third Party Administration
& Development	Local Programming	Project Engineering	Transit Demand Model
Diversity & Economic	Long Range Transportation	Public Relations	Policy & Regional
Opportunity Department	Plan & Mobility Corridors	Purchasing	Shared Mobility
Emergency Preparedness	Maintenance Administration/	Quality Assurance	Transit Project Delivery
Environmental Compliance	Non-Revenue	Rail Vehicle Engineering	Transit-Oriented Communities
& Sustainability	Major Capital Project	Real Property & Asset	Vendor/Contract
Department	Engineering	Management	Management
Facilities Engineering	Metro Design Studio	Risk, Safety & Asset	Wayside Systems
Operations	Metro Marketing	Management	Facility Maintenance

Metro was supported by Cumming Management Group, Raimi + Associates and Lentini Design & Marketing through the development of this plan. Metro also engaged several external stakeholders for input through multiple outreach efforts and public events:

EXTERNAL PARTNERS

Metro Sustainability Council	Colbert Group	Kempton Strategies	SuRF
3Cotech	County of Los Angeles,	Kleinfelder	TetraTech
AECOM	Chief Sustainability Office	Los Angeles Cleantech Incubator	The Leonardo DiCaprio
All About Waste	County of Los Angeles,	Los Angeles Walks	Foundation
Alta Environmental	Department of Public Works	LSA Associates, Inc.	The Natural Resources
ARUP	County of Los Angeles,	Metropolitan Water District of	Defense Council
Caltrans District 7	Department of Public Health	Southern California	The Nature Conservancy
CivilEarth Engineering	Deep Root Green	Morgner	The Sierra Club
City of Los Angeles,	Infrastructure LLC	MugenKioku	Transportation Business
Bureau of Street Services	ESA Associates	Nature for All	Advisory Council
City of Los Angeles,	EW Consulting Inc	O2EPCM, Inc.	TRC Solutions
Department of Public Works	For Strategy Consulting, Inc.	Phase 5 Environmental	Tree People
City of Los Angeles, Office of	FPL and Associates	Siemens	The Trust for Public Land
Mayor Eric Garcetti	Gateway Cities Councils	Small Cities	UCLA Transportation
City of Los Angeles,	of Governments	South Bay Council	UCLA Sustainability
Department of	GHD	of Governments	Value Management
Transportation	GlobalASR	Southern California	Strategies, Inc.
City of Los Angeles,	ICI Engineering	Association of	Watershed Health
Department of	Investing in Place	Governments	Westside Cities Council
Water and Power	Jack Sahl & Associates	Supervisor Sheila Kuehl’s	of Governments
Climate Resolve	Jacobs	Office	ZelDesign

Board of Directors

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Hilda L. Solis

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Jacquelyn Dupont-Walker

Appointee

City of Los Angeles

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Los Angeles County Supervisor

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Los Angeles County Supervisor

Second Supervisorial District

John Bulinski

Caltrans District 7 Director

Non-Voting

Appointed by the Governor
of California



Metro

One Gateway Plaza

Los Angeles, CA 90012-2952



323.GO.METRO



sustainability@metro.net



metro.net/sustainability



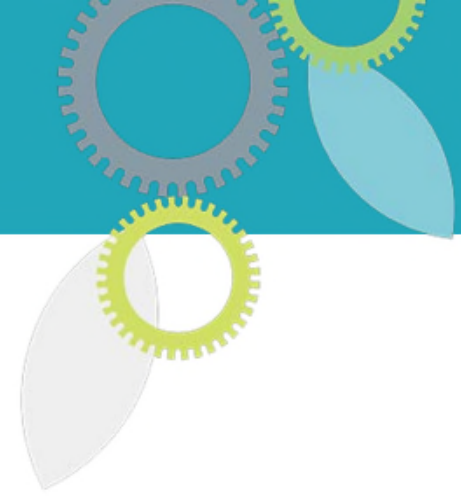
Metro[®]

MBS Public Input - General (Front and Back Matter, Overall)									
#	Source	Topic/Category	Name	Is the purpose and ongoing function of this plan clear?	Is there something that should be added or removed from this document?	Do you have suggestions related to the targets or strategies?	Do you feel this plan will increase equity in the region?	Other	Response
1	Online Form	General	Jake Brown	Yes- From the opening paragraph throughout this document is clear and concise. Metro's vision, Metros' sustainability is well defined (Metro's commitment to Sustainability is spot on) and objectives are well displayed. I particularly am impressed with Metro's Equity and Inclusion position and rational.	Yes - As a city with such a large talent pool we need to encourage innovative, visionary yet practical designs. This is our time to shine! For example real estate is at a premium and we have 100% renewable energy goals, where is Building Integrated Photovoltaics identified, where are green roofs, mag-lift rail lines, advanced charging stations. Let's get NASA, JPL, all the colleges involved in a contest.	No. The targets are realistic although demanding.	Yes. Workforce development, DBE will have access to anywhere in LA - the METRO Transit goal is all encompassing.		Agreed. Metro references the importance of partnerships is referenced in the sections: Committed to Sustainability, Implementation and Moving Beyond.
2	Online Form	General	Unknown	Yes	I don't know - Didn't have time to read the whole document	No	I don't know. we'll have to wait and see, right? important to track/share updates in future - how are you performing		Noted
3	Online Form	General	Unknown	Yes	NO	No	I don't know		Noted
4	Online Form	General	Unknown	Yes	I don't know	No			Noted
5	Online Form	General	Unknown	I don't know	I don't know	No	No. this plan is focused on the work force only		Noted
6	Online Form	General	Theodore vigil	I don't know		I don't know	I don't know		Noted
7	Online Form	General	Unknown	Yes	No	No	Yes		Noted
8	Online Form	General	Unknown	Yes. The plan, as drafted, makes sense. It is a comprehensive program with many elements. I wonder how a program that broad can be implemented, and how can the impacts be tracked accurately. Some elements of the program would need to have subjective scoring and that lends itself to being open to manipulation.	No	I don't know. This is a deeper question than something that can be quickly answered in a text box. I heard on an NPR segment a conversation of making public transit free, and no fare box collection. The pros are that it would potentially increase ridership. The cons are that it still won't move the average person to get out of a car and into public transit unless additional challenges are addressed, such as frequency of busses/trains to the point it becomes very convenient. Short of a seismic change in how transit is implemented, I see environmental programs as a great target for an agency the size of Metro to consider, but not likely to create wholesale changes in environmental impacts.	NO. As I mention above, should Metro find a way to get the average citizen out of personal vehicles and into public transportation, the equity will be a minor part of the overall organizational outcomes.		Noted.
9	Online Form	Energy	Hugo Ballesteros	Yes	Yes	Yes. Add solar and battery storage to Park & ride facilities like Norwalk Green line terminus. Add battery storage to existing old photovoltaic installations. Greenline stations can be extended and cover in solar panels and battery storage when they get rebuilt & remodel. Their wasn't any real solar or battery storage to the Blue line remodel.	I don't know		Noted. Metro recently completed a Microgrid Feasibility Study and are looking to apply this where it makes financial sense.
10	The Nature Conservancy Letter	Water						Smart irrigation and use of recycled water for irrigation need to be implemented in all areas of LA Metro coverage	Noted. Metro is addressing water conservation strategies and best practices including smart irrigation and recycled water use under strategies W1, W2 and W4. The implementation of these strategies will be detailed in the upcoming Water Action Plan update.
11	The Nature Conservancy Letter	Water						Plan needs to more firmly address the low-impact development measures such as rain gardens, permeable pavement, rainwater catchment and stormwater runoff infiltration, especially because it helps mitigate climate change impacts filtering stormwater and recharging aquifers and can cost less than gray infrastructure alone	Noted. Content has been revised. The implementation of these strategies will be detailed in the upcoming Water Action Plan update.

MBS Public Input - General (Front and Back Matter, Overall)									
#	Source	Topic/Category	Name	Is the purpose and ongoing function of this plan clear?	Is there something that should be added or removed from this document?	Do you have suggestions related to the targets or strategies?	Do you feel this plan will increase equity in the region?	Other	Response
12	The Nature Conservancy Letter	Water						The Twenty-Eight by '28 initiative expects to increase the potable water usage in a BAU scenario to 38.1% from 2018 levels. The Plan's target of a 22% reduction in water consumption from levels in the 2030 BAU scenario will not suffice to mitigate risks of potable water shortages in LA County or else adapt to the heightened risk of water shortages associated with climate change which will inevitably affect infrastructural development. We recommend Metro adopt a more ambitious reduction target.	Noted.
13	The Nature Conservancy Letter	Water						It is important to prioritize actions to increase the use of non-potable water sources not only to offset but to significantly reduce the use of operational potable water use (Metro Sustainability Plan, 2020, P.35)	Noted.
14	The Nature Conservancy Letter	Water						The Plan needs to properly address the Municipal Recycled Water Substitution for Bus Washing Strategy published in the Metro Water Action Plan 2010...the Plan needs to give attention to its major source of water use to mitigate portable water stress in the region.	Noted. Metro is developing an update to the 2010 Water Action Plan which will provide a more concrete implementation plan addressing recycled water use.
15	The Nature Conservancy Letter	Water						The Plan needs to elaborate on how it will approach staff training on water issues and make sure this education is continuous so that water saving practices are well understood and applied by all employees.	Noted. This level of detail will be laid out in the implementation plans.



Metro®



Moving Beyond Sustainability: 10-Year Sustainability Strategic Plan

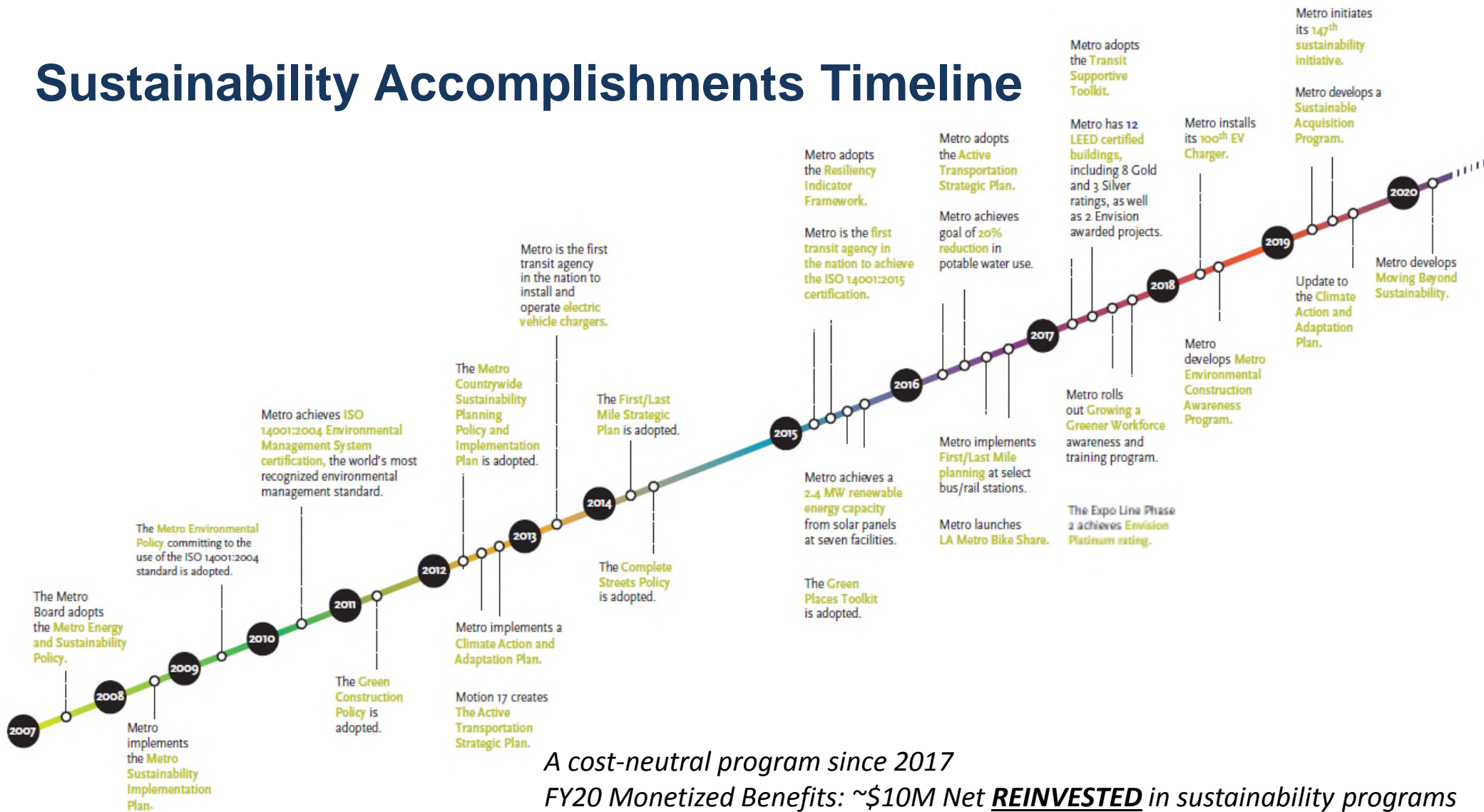
Executive Management Committee
September 17, 2020

Overview

- Update and expand upon the 2008 Metro Sustainability Implementation Plan (MSIP) and Countywide Sustainability Planning Policy
- Establish 10-year sustainability goals and targets
- Unify agency-wide sustainability efforts and chart strategic direction under new CSO
 - Environmental Compliance and Sustainability Department
 - Countywide Planning and Development



Sustainability Accomplishments Timeline



A cost-neutral program since 2017
*FY20 Monetized Benefits: ~\$10M Net **REINVESTED** in sustainability programs*
Financial analysis done to implement these programs in next 10 years

Comprehensive Planning

- Numerous reports, plans and Board Motions influence MBS
- Informed by parallel efforts in **LA County + City of LA and other programs throughout the world**
- More visionary, aggressive, measurable performance metrics across 7 sustainability categories

We're guided by our *Strategic Plan* goals.

 *Vision 2028 Strategic Plan*

We're creating

- 1 Faster Travel Options** **2 Better Trips** **3 Thriving Communities**

Better Transit

Providing more transit options with improved quality and service

Transit Projects
Bus Improvements
New Mobility Options

Less Congestion

Managing the transportation system to reduce the amount of time people spend in traffic

Roadway Improvements
Congestion Management
Goods Movement

Complete Streets

Making streets and sidewalks safe and convenient for everyone, to support healthy neighborhoods

Bike and Pedestrian Projects
Local Street Improvements
Station and Stop Access Enhancements

Access to Opportunity

Investing in communities to expand access to jobs, housing and mobility options

Workforce Initiatives
Support for Local Businesses
Transit Oriented Communities

 *Long Range Transportation Plan*


We're committed to

- 4 Leadership** **5 Accountability**

 Collaboration  Continuous Improvement
 Customer Focus  Innovation  Inspired and Inclusive Workforce  Safety

 *Customer Experience Plan*  *COVID-19 Recovery Plan*

We're intentionally focused on **eliminating racial and socioeconomic disparities and advancing sustainable practices in everything we do.**

 Equity  Sustainability

 *Equity Plan*  *Moving Beyond Sustainability Plan*

Sustainability Categories and Targets

Water Quality and Conservation



- 1 Reduce potable water use by **22%** from the 2030 Business as Usual scenario.
- 2 Increase runoff infiltration and capture capacity for stormwater by **15%** from 2020 baseline levels.

Solid Waste



- 1 Reduce annual operational solid waste disposal **24%** from 2030 Business as Usual scenario.
- 2 Achieve **50%** landfill diversion rate for operational waste.
- 3 Achieve **85%** construction landfill diversion rate.

Materials, Construction and Operations



- 1 Achieve **LEED Silver** certification for all new facilities over 10,000 square feet.
- 2 Design and build **100%** of capital projects to CALGreen Tier 2 standards.
- 3 Complete **Sustainable Acquisition Program training/implementation** and develop **2030 program targets** for annual sustainable acquisition spend by 2022.

Energy Resource Management



- 1 Reduce energy consumption by **17%** at facilities from the 2030 Business as Usual scenario.
- 2 Increase onsite renewable energy generation to **7.5 MW**.

Emissions and Pollution Control



- 1 Displace **903,000 MTCO₂e** annually.
- 2 Reduce total GHG emissions by **79%** from 2017 baseline³.
- 3 Reduce total nitrogen oxides (NO_x) emissions **54%** from 2018 baseline.
- 4 Reduce total particulate matter (PM) emissions **62%** from 2018 baseline.

Resilience and Climate Adaptation



- 1 Identify all acute shocks or stressors for critical and/or vulnerable areas at or near Metro infrastructure by 2025.
- 2 Implement the flexible adaptation pathways concept to incorporate climate adaptation into planning, procurement, asset management and operations by 2025.
- 3 Prioritize improvements to locations, facilities, infrastructure, equipment and operations to reduce risk.

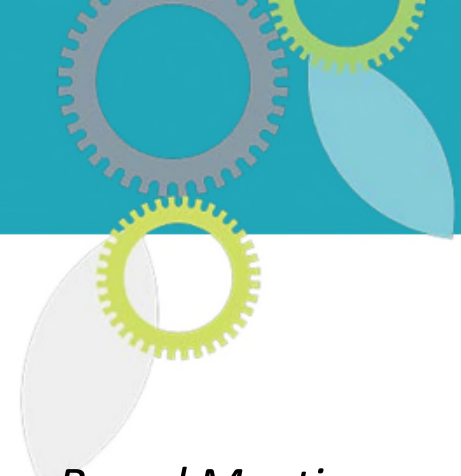
Economic and Workforce Development



- 1 Review job classifications on a regular basis and eliminate obsolete requirements that create barriers to career advancement.
- 2 Recruit employees from diverse sources, including vocational schools, community colleges, groups supporting formerly incarcerated persons and organizations supporting persons with disabilities and older adults.
- 3 Achieve triennial DEOD contracting goals related to small, disadvantaged and veteran-owned businesses.

Development Process and Engagement





Next Steps

- Approval of the Sustainability Strategic Plan: September 2020 Metro Board Meeting
- Immediate Steps:
 - Update of any existing related policies and plans
 - Understanding implications of Final Recovery Task Force Recommendations
 - Engagement with other Metro Departments, re: other plans/initiatives
 - Work to align: Customer Service Vision, Equity Plan and SRTP
- Work with community partners for input and advise
 - LA Metro Sustainability Council
 - Stakeholders and community benefits
 - Identify tactics on emerging issues
- Annual Report in 2021



Board Report

File #: 2020-0426, **File Type:** Informational Report

Agenda Number: 34.

**EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 17, 2020**

**SUBJECT: OFFICE OF THE INSPECTOR GENERAL REPORT ON METRO PERSONNEL
HIRING PROCESS STUDY**

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Office of Inspector General (“OIG”) report on Metro Personnel Hiring Practices Study

ISSUE

The Los Angeles County Metropolitan Transportation Authority (Metro) serves as the planner, coordinator, and operator of the public transportation system for the Los Angeles region. Metro is undertaking one of the largest construction programs in the country, and seeks to expediate the study, planning and building of its ambitious programs to address the current needs of the community. Accomplishment of its objective requires the prompt filling of every vacancy with staff prepared to act with a sense of urgency.

BACKGROUND

In Fiscal Year (FY) 2020, the Metro Board authorized 1,680 non-contract positions. Metro has two tracks for hiring people: one is posting and hiring of new applicants and the other is interviewing and selecting from an existing qualified candidate pool from a former posting. The hiring process is a little faster when there is already a qualified pool. The purpose of this review is to determine if Metro’s hiring policies, procedures, and process are efficient and effective to satisfy the needs of the departments to proceed on an expedited basis to carry out the Board’s directives.

DISCUSSION

To fully analyze the process and compare it to industry practices, the OIG engaged the services of a well qualified team of human resources specialists. Our review found that Metro’s hiring process consists of both industry-leading strengths and opportunities for improvement. The organization’s commitment to equity is integrated in its value system through clear communication from Executive

Leadership, its policies, and its hiring process. Metro values and promotes diversity and inclusion from the start of the hiring process to the end, and that message is clear throughout the organization. The relationship between stakeholders in the hiring process (e.g., Talent Acquisition [TA] staff, candidates, Hiring Managers) is, with few exceptions, symbiotic and positive. At the conclusion of the hiring process, the individual filling the vacancy is qualified and is someone with whom the hiring manager is pleased. Although Metro's hiring process accomplishes its organizational goals, the process is found to be inefficient, consisting of lengthy times-to-hire, manual and paper-based activities, and numerous and redundant steps that is frustrating to hiring managers and sometimes results in the loss of desirable candidates.

This review was focused on analyzing the hiring processes for the 315 non-contract, full-time employees who were hired, externally or internally, from July 1, 2018 to June 30, 2019 (Metro's Fiscal Year 2019). This study did not cover contract employees, which comprise the majority of Metro's 10,219 full time employees (FTEs), nor did it cover employees hired prior to, or after, FY 2019.

On May 15, 2020, Human Capital and Development (HCD) submitted their response to the recommendations on the draft report dated April 28, 2020. Our consultant's reply to their comments is shown on the following pages (please see the paragraphs highlighted in yellow and described as "Project Team Response"). We took some of HCD comments into consideration and updated our report in certain respects.

This report made a total of 28 recommendations to improve the Metro personnel hiring process. We believe these improvements are appropriate to achieve notwithstanding the impacts that the Covid-19 period may have had on the hiring activity of the agency.

FINANCIAL IMPACT

Adoption of the recommendations in this report does not increase the financial impact on the agency. However, by acting on these recommendations, Metro can expect to obtain the following benefits: (1) decreased time-to-hire, (2) increased effectiveness, (3) improved candidate experience, and (4) decreased risk / liability

Impact to Budget

None

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendations in this report support Metro's 28 by 28 Strategic Plan Goal 5, "Provide responsive, accountable, and trustworthy governance within the Metro organization".

NEXT STEPS

Metro management should consider adoption of the recommendations proposed in this report

ATTACHMENTS

Attachment A - Personnel Hiring Process Study

Prepared by: Asuncion Dimaculangan, Senior Auditor, (213) 244-7311
Yvonne Zheng, Senior Manager, Audit, (213) 244-7301
George Maycott, Interim Senior Director, Inspector General Audit
(213) 244-7310

Reviewed by: Karen Gorman, Inspector General, (213) 922-2975

**Los Angeles County
Metropolitan Transportation Authority
Office of the Inspector General**

Personnel Hiring Process Study

Report No. 20-AUD-09

August 14, 2020





Metro

**Los Angeles County
Metropolitan Transportation Authority**

Office of the Inspector General
818 West 7th Street, Suite 500
Los Angeles, CA 90017

213.244.7300 Tel
213 244-7318 Fax

DATE : August 14, 2020

TO : Metro Board of Directors
Metro Chief Executive Officer

FROM : Karen Gorman
Inspector General, Office of the Inspector General

SUBJECT : Final Report on Personnel Hiring Process Study
(Report No. 20-AUD-09)

The Los Angeles County Metropolitan Transportation Authority (Metro) serves as the planner, coordinator, and operator of the public transportation system for the Los Angeles region. Metro is undertaking one of the largest construction programs in the country, and seeks to expedite the study, planning and building of its ambitious programs to address the current needs of the community. Accomplishment of its objective requires the prompt filling of every vacancy with staff prepared to act with a sense of urgency.

In Fiscal Year (FY) 2020, the Metro Board authorized 1,680 non-contract positions. Metro has two tracks for hiring people: one is posting and hiring of new applicants and the other is interviewing and selecting from an existing qualified candidate pool from a former posting. The hiring process is a little faster when there is already a qualified pool. The purpose of this review is to determine if Metro's hiring policies, procedures, and process are efficient and effective to satisfy the needs of the departments to proceed on an expedited basis to carry out the Board's directives.

To fully analyze the process and compare it to industry practices, the OIG engaged a consulting service from a qualified team of human resources specialists. Our review found that Metro's hiring process consists of both industry-leading strengths and opportunities for improvement. The organization's commitment to equity is integrated in its value system through clear communication from Executive Leadership, its policies, and its hiring process. Metro values and promotes diversity and inclusion from the start of the hiring process to the end, and that message is clear throughout the organization. The relationship between stakeholders in the hiring process (e.g., Talent Acquisition staff, candidates, Hiring Managers) is, with few exceptions, symbiotic and positive. At the conclusion of the hiring process, the individual filling the vacancy is qualified and is someone with whom the hiring manager is pleased. Although Metro's hiring process accomplishes its organizational goals, the process was found to be inefficient, consisting of lengthy times-to-hire, manual and paper-based activities, with numerous and redundant steps that are frustrating to hiring managers and sometimes results in the loss of desirable candidates.



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This report made a total of 28 recommendations to improve the Metro personnel hiring process. By acting on these recommendations, Metro can expect to obtain the following benefits: (1) decreased time-to-hire, (2) increased effectiveness, (3) improved candidate experience, and (4) decreased risk / liability. We believe these improvements are appropriate to achieve notwithstanding the impacts that the Covid-19 period may have had on the hiring activity of the agency.

We appreciate the assistance provided by Metro Talent Acquisition staff during this review. I am available to answer any questions the Board Directors may have regarding this report.



Interoffice Memo

Date	May 15, 2020
To	Yvonne Guan Zheng Senior Manager, Audit
From	Joanne Peterson Chief, Human Capital & Development
Subject	Draft Report on LA Metro Hiring Process Study Response

Thank you for the opportunity to respond to the draft audit report. In reviewing the draft audit response, I was pleased to hear that the candidates selected for the positions are qualified and met each manager's needs. This not only accomplishes the agency's organizational mission but confirms the Talent Acquisition (TA) team's hard work and commitment in partnering with our Hiring Managers to get top talent for the organization. That said, the Human Capital and Development Department is always looking for ways to be more efficient as we work with our department partners to find candidates needed to fill vacant positions.

To ensure that the audit provides us with tools that can assist us, the process documented should be consistent with the actual work performed by the Talent Acquisition team. As the team reviewed the draft report, they identified several inconsistencies that we feel should be reevaluated. These inconsistencies are identified in three areas including, Metro current processes documented; completed processes previously changed; and consistent benchmark data evaluation. These inconsistencies are further defined below:

- I. Metro Processes Documented- Inconsistencies with information the team provided versus what was documented in the audit.
- II. Completed Process Previously Changed- Inconsistencies in documenting process changes that were implemented after the initial audit timeframe but were addressed with the auditors.
- III. Consistent Benchmark Data Evaluation- Inconsistencies reliability of the data used to evaluate Metro against the benchmarked agencies.

I. Metro Processes Documented

In the review of the draft audit report, the team found nine areas where the processes described in the audit documentation are inconsistent with the Talent Acquisitions team's current recruitment and selection processes. The specific audit language described in the tasks, findings, and recommendations are identified below:

Task 1: Gather Background Information

1. Candidate Time to Hire (Page 14)

Audit Language: The candidate time-to-hire includes any time that the selected candidate may have spent in a QCP.

TA Response: This is not correct. The time to hire is calculated from the time a requisition is submitted to fill a vacant position. A qualified candidate pool is a list of qualified candidates who are immediately eligible to be considered when a vacancy exists. The pool is open for approximately 18 months. This is communicated to candidates when they apply and are placed on the list.

Project Team Response: The two sections on page 14 titled, "Candidate Time-to-hire," and "Hiring Manager Time-to-hire," are intended to describe the way that the Project Team defines these measures in the context of LA Metro's hiring process; it was not the Project Team's intent in these sections to describe how Talent Acquisition calculates time-to-hire. In order to clarify that these two sections are intended to describe how the Project Team defines both candidate and hiring manager time-to-hire, explanatory text will be added at the end of the paragraph preceding these two subsections.

2. Recommendation 01: Employ OTAC, Metro's new Applicant Tracking System, to obtain and utilize talent analytics (Page 19)

Audit Language: With the adoption of OTAC, a more reliable tool for collecting data than its predecessor, comes the opportunity to obtain and utilize data analytics to augment talent acquisition. Specifically, data from OTAC, when integrated with Metro's Human Resource Information System (HRIS), can provide TA invaluable insights into workforce planning, recruitment spending, and predicting attrition. Additionally, OTAC can be leveraged to quantify *descriptive* measures, such as talent acquisition activity (e.g., time-to-hire), efficiency (e.g., segmented time-to-hire), and performance (e.g., applicants-per-hire), along with future-oriented measures such as *predictive* measures (which project what will happen in the future) and *prescriptive* measures (which explain what Metro *should* do).

TA Response: This is partially correct. Although OTAC is designed to provide analytics, it is important to document that the department does have established analytics on time-to-hire that we track.

Project Team Response: The beginning portion of Recommendation 01 has been edited to clarify that (1) TA's current recruitment technology does provide analytical capabilities, including tracking time-to-hire, and (2) the implementation of OTAC will increase TA's current data analytics capabilities.

3. Recommendation 02: Hold hiring process stakeholders accountable for faster decision making (Page 19)

Audit Language: Throughout Metro's hiring process, different stakeholders are responsible for different actions that move the hiring process forward. Primarily, Hiring Managers, TA Analysts, EEO representatives, and Compensation Analysts own steps in the hiring process, along with the leaders of TA and Compensation. While not intentional, stakeholders can cause delays in the hiring process by not expeditiously completing their step, and delays from just one of these stakeholders can impact the overall time-to-hire.

TA Response: This is not correct. During the initial recruitment and selection meeting, representatives from Compensation, Recruitment and EEO (for high watch positions), are present to discuss the recruitment process, including timelines. We also have “turn-around” agreements with Compensation and EEO.

Project Team Response: The “Audit Language” provided above makes two statements: (1) multiple stakeholders are involved in the hiring process, and (2) delays from any of these stakeholders can delay the hiring process; these two statements remain unaffected by the (a) the existence of the initial recruitment and section meeting, and (b) the presence of “turn-around” agreements. None of these comments negate the others.

Task 2: Review Policies/Procedures and Interview Personnel

4. Finding J: Recent changes to position descriptions limit Hiring Managers (Page 28)

Audit Language: A recently completed agency-wide initiative to update and streamline job descriptions, which received an award from Metro’s CEO, reduced the number of job descriptions by consolidating similar positions across departments. In this new model, an analyst role for one department can be used for an analyst role in another.

TA Response: This is not correct. The new model did not consolidate all analyst job descriptions to be generic enough to be used in any department. Although the agency does have widely used analyst positions, we also continue to have specific analyst positions by department.

Project Team Response: Many Hiring Managers reported that prior to the job description audit they had access to job descriptions specific to their department and role, and now, following the audit, they are using generic job descriptions. While they appreciate the often more robust QCPs, the inability to further tailor job descriptions was a point of frustration. The language in “Audit Language” was not meant to exclude the possibility that some positions exist by department, but merely remarks on the increased use of generalized job descriptions. However, to avoid confusion, we will remove the sentence beginning, “In this new model...”

5. Recommendation 13- Expand Hiring Managers’ influence by allowing additional Minimum Qualifications to a position (Page 29)

Audit Language: The revamp of job descriptions offers both benefits and concerns. Of greatest concern to Hiring Managers is that the lack of specificity in job titles and minimum requirements has inadvertently encouraged candidates who are not qualified to apply. While in some cases casting a wide net is prudent, to improve the cost-effectiveness of hires it’s more important to discourage candidates who don’t fit than to “jam more candidates into the recruiting funnel.”

TA Response: This is not correct. The Compensation team recently completed a project where we revised every job specification. The project team consisted of a representative from every department. Each department representative had an opportunity to contribute to the changes on the job specifications. Now that the job specifications are final, we do not allow changes to the job specifications that we worked so hard to standardize. Instead, we allow Hiring Managers to create

Preferred Qualifications that help to focus in on the specific knowledge, skills, and abilities for the position and to streamline the candidate pool to that of what is best needed for the agency.

Project Team Response: Interviews with Hiring Managers uncovered that some perceived using preferred qualifications to be an ineffective method of narrowing the candidate pool. They acknowledged that although the preferred qualifications do allow for “tailoring,” in practice the varying utilization of preferred qualifications in screening candidates does not guarantee to Hiring Managers that those specific knowledge, skills, and abilities will be considered. (For example, in a search with a large applicant pool, Hiring Managers shared that the preferred qualifications will be used as a screening mechanism; in a smaller applicant pool, however, the PQs may not be utilized. To increase the Hiring Manager’s influence on candidate screening – and, therefore, reduce the number of applications for them to review – Metro could permit minimum qualifications to be edited.

Task 4: Evaluate Compensation Determination Process

6. Finding BB: Out-of-range salary pursuits are beneficial, though they may require multiple signatures (Page 46)

Audit Language: In many hiring processes, the quartile range initially offered by Compensation is rarely accepted by the Hiring Manager without attempting to increase it.

TA Response: This is not correct. Although a small percentage of departments push back, the majority of departments accept the quartile range provided in the Salary Administration Guidelines.

Project Team Response: During interviews, many Hiring Managers reported that they attempted to increase the initial quartile range presented by Compensation. Although an exact tally was not kept, the Project Team estimates that well over 25% of Hiring Managers interviewed – and potentially above 50% – reported that they sought to increase the initial offer. The “Audit Language” sentence will be edited to clarify the frequency.

7. Recommendation 26: Reduce required memos and forms and expedite their completion (Page 48)

Audit Language: An additional issue that arises regarding the forms is how susceptible the process is to delays when a required signatory is out of the office, on vacation, or busy with other responsibilities. As such, Metro should allow for required signatories to appoint signing proxies who can sign on the signatory’s behalf.

TA Response: This is not correct. The agency currently allows for departments to appoint signing proxies.

Project Team Response: Over the course of the interviews, the Project Team did not learn about the use of signing proxies. Thus, while certainly an option, it does not appear to be used frequently. Further, conversations with some Hiring Managers underscored that they were not aware that such policy exists. At the end of the “Audit Language” text, additional context will be provided which acknowledges that, if signing proxies are already permitted, their use should be encouraged.

8. Finding DD: Benefits and employment opportunities compensate for competitive hiring market (Page 49)

Audit Language: Annually, Metro conducts a compensation market assessment for one-third of its positions to ensure they remain properly competitive. As a result, when comparing salaries for positions at Metro against those at similar transit authorities, they are competitive. However, when comparing salaries with similar positions around LA, the money available in the private industry can be difficult to surmount.

TA Response: This is not correct. We do not solely benchmark against transit authorities. We use a combination of transit and general industry surveys (e.g., Mercer, Willis Towers Watson). Further, for jobs below the Director level, we scope jobs to the Los Angeles area or apply a geographic differential to account for the Los Angeles labor market.

Project Team Response: The "Audit Language" text does not state with whom LA Metro benchmarks. The first sentence notes that LA Metro assesses compensation annually. The second sentence notes that Metro's salaries are comparable to those at similar transit authorities. That said, the distinction between those two sentences is not as clear as it could be. As such, additional text will be added to clarify with whom LA Metro benchmarks.

9. Finding EE: Salary ranges on job postings lead to unfulfilled expectations (Page 50)

Audit Language: Upon receiving a counteroffer, the Compensation Analyst will contact the TA Analyst with the counteroffer and the highest salary within the candidate's current salary quartile. Typically, the Compensation Analyst will advise the TA Analyst to do a best and final offer, a step which requires concurrence from the Chief of the hiring department.

TA Response: This is not correct. The TA Analyst is not involved in the offer process. The Compensation Analyst, in consultation with the Hiring Manager, coordinates this process until the offer is accepted or rejected.

Project Team Response: The Project Team's inclusion of "TA Analyst" is mistaken; this will be corrected in text.

II. Completed Process Previously Changed

In the review of the draft report the team also found inconsistencies with documenting specific processes changes that were implemented after the audit timeframe. In the TA team's interviews with the audit consultants, it was specifically noted that there were several key changes that were implemented after the audit date period. Those two key areas were not addressed or noted in the audit findings and should be documented. The specific audit language described in the tasks, findings, and recommendations that omit the process changes are identified below:

Task 1: Gather Background Information

1. Recommendation 04: Select interview dates and interviewers prior to the Hiring Plan Meeting (Page 20)

Audit Language: One part of the interview process that can lengthen time-to-hire is scheduling the panel interviewers. Because Hiring Managers are relatively senior employees, finding time on their calendars can be challenging; this is compounded, of course, by the need to find a few dates and times that work for all three panelists. Therefore, the Hiring Manager and the TA Analyst should use the Hiring Plan Meeting to establish and set the hiring process schedule, including interview dates and times.

TA Response: This process was implemented before the audit but after the initial audit period. During the initial Recruitment and Selection meeting, TA analysts do discuss tentative dates for exams and interviews. These dates are dependent on availability of meeting rooms and external panel members.

Project Team Response: From the beginning of the study, the Project Team was made aware that, because Talent Acquisition was continually improving operations, some of the information gathered would, over time, become outdated. As such, the Project Team included the following comment on page 8 of the report: "This report also acknowledges where findings learned from those hired in FY2019 may differ from the current realities of Metro's hiring processes at the time this report was submitted, as TA continues to make improvements to the hiring process." By leaving this recommendation unchanged, TA can report that they have anticipated an area of improvement and have already made immediate progress on the recommendations outlined in this study.

Task 2: Review Policies/Procedures and Interview Personnel

2. Recommendation 07- Improve communication between TA and Hiring Managers regarding changes in the hiring process (Page 23)

Audit Language: One of the ways to mitigate the perception of inconsistency is by ensuring that there are forums or channels available to allow TA and Hiring Managers to communicate their concerns about the hiring process more generally, *beyond* the communication that occurs between the two groups when the Hiring Manager is trying to fill a vacant position. This effort at improved communication can take a variety of forms. TA can send Hiring Managers monthly emails outlining the changes that are being implemented, the reasons for the changes, and the impact the changes will have on the Hiring Managers. TA can also schedule quarterly meetings to present upcoming changes and ideas they are considering to improve the process and solicit input prior to implementing a change.

TA Response: This process was implemented before the audit but after the initial audit period. The TA team holds quarterly meetings (Human Capital Forums) and invites all department liaisons to discuss changes in our processes. In addition, we meet bi-weekly with the Operations team and weekly with the OMB team.

Project Team Response: From the beginning of the study, the Project Team was made aware that, because Talent Acquisition was continually improving operations, some of the information gathered would, over time, become outdated. As such, the Project Team included the following comment on page 8 of the report: "This report also acknowledges where findings learned from those hired in FY2019 may differ from the current realities of Metro's hiring processes at the time this report was submitted, as TA continues to make improvements to the hiring process." By leaving this recommendation

unchanged, TA can report that they have anticipated an area of improvement and have already made immediate progress on the recommendations outlined in this study.

III. Benchmark Data Evaluation

The team has identified inconsistencies with the benchmarked data evaluation. As a part of the audit, the Project team conducted benchmarking outreach to four organizations similar to Metro. The organizations included three transit agencies and the City of Los Angeles. Within the draft audit report, it was noted that the surveyed agencies did not have enough reliable data to conduct a benchmark review. Specific benchmarking information that addresses these concerns is provided below.

Task 5: Compare Metro to Peer Organizations

In Task 5, the Project Team compared the efficiency and effectiveness of Metro's hiring process to other government agencies with similar budget or of similar size. (Page 52)

Audit Language: Methodology

Complementing the documents reviews, data analyses, interviews, focus groups, and survey responses, the Project Team conducted benchmarking outreach to gather information directly from organizations similar to Metro. These organizations included governmental agencies within Los Angeles and transit agencies of similar size outside of Los Angeles. By benchmarking with the former, Metro can identify hiring process trends that are endemic to the Los Angeles area; by benchmarking with the latter, Metro can understand how their hiring process compares to peers within the same industry.

The Project Team reached out to the following nine organizations to request their participation in the study via benchmarking. (The organizations were listed by logo and include BART, Sound Transit, The City of LA, MARTA, NJ Transit, Trimet, SPTA, and Metro.)

Benchmarking was completed with four agencies (44.4%): the City of LA, MARTA, NJ Transit, and SEPTA. During initial benchmarking conversations, it became clear to the Project Team that these organizations do not have detailed hiring flowcharts (such as the ones in Appendix 2); high-level process maps that outlined the major steps in the hiring process (see [Figure 15](#)) were available, however. In addition, none of the four organizations possessed definitive, trustworthy time-to-hire data. Only one of the four had time-to-hire data that it felt was reliable enough to share specific numbers⁶⁷, but even this information was provided as an estimate and not data derived from the organization's Applicant Tracking System.

TA Response: As stated in the draft audit, one of the key objectives was to "evaluate whether the personnel hiring process is adequately timely and operating effectively". During the audit, the TA team provided documentation on the agency's recruitment and selection processes. This included a hiring flow chart and data on requisition time-to-hire. These are two key items allow for an effective benchmarking process. However, the audit noted that the four agencies used in the benchmarking process didn't have a document demonstrating their hiring process, and only one had time-to-hire data that the consultant felt was reliable enough to share. In our experience with benchmarking, it is

understood that if there aren't enough agencies to provide comparable data, the process is noted as insufficient and wouldn't be used. It was evident in the review that the agencies didn't share proper information and therefore, shouldn't be used.

Project Team Response: Broadly speaking, the "TA Response" above puts forth two specific comments. First, it notes that the Project Team noted that the agencies did not have "a document demonstrating the hiring process." Second, it notes that the insights derived from the data shared with the Project Team should not be utilized because it is unreliable.

To the first comment: Page 50 of the report notes that, "During initial benchmarking conversations, it became clear to the Project Team that these organizations do not have detailed hiring flowcharts (such as the ones in Appendix 2); high-level process maps that outlined the major steps in the hiring process (see Figure 15) were available, however." The "high-level process maps" referenced in this sentence were of a similar level of detail as the ones provided to the Project Team by LA Metro. Neither LA Metro nor the benchmarking agencies shared process maps that the Project Team considered to be "detailed hiring flowcharts," like the one developed in Visio for this study, which can be found in Appendix 2. Therefore, the first "TA Response" comment – that "the four agencies...didn't have a document demonstrating their hiring process" – is mistaken.

To the second comment: Accuracy is not always a binary construct (that is, either accurate or not); in some situations, accuracy can also have gradations. Benchmarking with time-to-hire data is one of the situations that allows for gradations. Accurate information can come from a variety of sources, including but not limited to data from an Applicant Tracking System. (In fact, data from an Applicant Tracking System is not necessarily reliable. The Project Team's experience working with other organizations indicates that data pulled directly from an Applicant Tracking System may be unreliable for a host of reasons, including user error when entering dates into a system or a recruiter updating a candidate's status from memory long after the candidate completed a step in the process.) Estimates provided by a subject matter expert (SME) can be a source of accurate information. In essence, gathering time-to-hire estimates from other organization's recruitment functions serve as subject matter expertise. Understanding that (1) data accuracy can be mapped on a continuum, and (2) data derived from all sources – including Metro's own Applicant Tracking System – may not be perfectly accurate, the Project Team acknowledged the potential limitations of the information provided by the benchmarked agencies – namely, that they were estimate-based – prior to presenting the insights derived from that data. Considering (a) this disclosure, and (b) that the Project Team did not find the benchmarking data provided to be inaccurate (when compared with the Team's past experiences completing similar projects with other transit agencies), the Project Team found the information to be reliable and, thus, worth sharing as a comparison with Metro.

I want to thank you again for giving Human Capital & Development the opportunity to review the draft audit and provide our comments. I am optimistic that the inconsistencies described above will be addressed and am open to meeting with you and the audit team to address our comments. As I previously stated, Human Capital & Development is committed to improving our recruitment and selection process so that we can meet the goals of the agency as well as provide effective communication to our candidates.



Los Angeles County
Metropolitan Transportation Authority
Personnel Hiring Process Study

Report No. 20-AUD-09

June 25, 2020



northhighland.
WORLDWIDE CONSULTING

Table of Contents

Executive Summary	1
Findings and Recommendations	1
Background	7
Overview of Study	7
Overview of Talent Acquisition.....	8
Overview of Metro’s Hiring Process	9
Overview of Report	12
Task 1: Gather background information.....	13
Task Overview	13
Methodology.....	13
Findings and Recommendations	15
Task 2: Review policies / procedures and interview personnel.....	21
Task Overview	21
Methodology.....	21
Findings and Recommendations	21
Task 3: Interview new hires.....	33
Task Overview	33
Methodology.....	33
Findings and Recommendations	35
Task 4: Evaluate compensation determination process	44
Task Overview	44
Methodology.....	44
Findings and Recommendations	44
Task 5: Compare Metro to peer organizations.....	52
Task Overview	52
Methodology.....	52
Findings and Recommendations	53
Appendices.....	56
Appendix 1: Recommendations Benefits.....	56
Appendix 2: Process Maps.....	58
Appendix 3: Question Guides	59
Appendix 4: Schedule of Report Findings and Recommendations	66

EXECUTIVE SUMMARY

The Los Angeles County Metropolitan Transportation Authority's (Metro) *Office of the Inspector General* (OIG) is responsible for assisting the organization in meeting its mission of continued improvement for an effective and efficient transportation system for Los Angeles County. The OIG, as part of its oversight responsibilities, conducts investigations and audits to promote the efficiency and effectiveness of Metro programs and operations.

Metro, one of the largest transportation agencies in the nation, is transforming Los Angeles with \$120 billion of voter-approved, Measure M transportation improvements over 40 years while also providing daily rail, bus, and other services across Los Angeles County. The Metro Board of Directors adopted an *Early Project Delivery Strategy* (EPDS) that will be used to determine how projects could be delivered faster than scheduled, without delaying other projects. These criteria include factors such as funding, process, partnerships, and innovations. To meet the region's growing transportation demands, Metro's Board authorized the hiring of over 1,500 non-contract positions in the coming year. Consequently, to meet the Board's project delivery goals, the OIG commissioned a study of the organization's non-contract hiring process for FY 2019 (July 2018 – June 2019), competitively selecting the Small Business Prime firm of SCA Strategic Partnerships International and North Highland to conduct it. The study commenced in spring 2020 to determine whether Metro's personnel hiring process is efficient and timely, and to evaluate its hiring policies and procedures. This report, which presents the findings and recommendations regarding the hiring process, is the culmination of that study.

This study was commissioned with the following four objectives:

- Determine if there are areas where the hiring process could be streamlined (shortened), such as eliminating duplicative approvals or inefficient sequencing of steps, and making the process more efficient, applicant friendly, and transparent to the hiring department;
- Evaluate whether the personnel hiring process is adequately timely and operating effectively;
- Determine whether the compensation determination and administration processes are reasonable and effective to accomplish a speedy hiring process; and,
- Determine how the applicant experience may be improved.

Findings and Recommendations

LA Metro's hiring process consists of both industry-leading strengths and opportunities for improvement. The organization's commitment to equity is integrated in its value system through clear communication from Executive Leadership, its policies, and its hiring process. Metro values and promotes diversity and inclusion from the start of the hiring process to the end, and that message is clear throughout the organization. The relationship between stakeholders in the hiring process (e.g., Talent Acquisition [TA] staff, candidates, Hiring Managers) is, with few exceptions, symbiotic and positive. At the conclusion of the hiring process, the individual filling the vacancy is qualified and is someone with whom the Hiring Manager is pleased. Although Metro's hiring process accomplishes its organizational goals, the process is also inefficient, consisting of lengthy times-to-hire, manual and paper-based activities, and redundant steps.

The findings from this study were derived using three avenues of information gathering: interviews, focus groups, and surveys. The accompanying recommendations, tailored to Metro's hiring process, were designed using hiring best practices. The findings and recommendations, organized into this assessment's

five major tasks are provided in summary form below.¹ Further detail regarding the findings and recommendations may be found after the Executive Summary. In addition, **Appendix 1** lists each recommendation and their link to one or more broad benefits that Metro can expect to obtain by implementing the recommendation. These benefits are: (1) decreased time-to-hire, (2) increased effectiveness, (3) improved candidate experience, and (4) decreased risk / liability.

Some findings do not have recommendations because there is not an accompanying action that is required, and some findings have more than one recommendation.

Task 1: Gather Background Information

- A. Time-to-hire varies by requisition:** Metro's hiring process is lengthy. Time-to-hire may vary by Department and by the Hiring Manager, but it mostly varies by requisition, even within the same Department.
- Recommendation 01: Employ Oracle Talent Acquisition Cloud (OTAC), Metro's new Applicant Tracking System, to obtain and utilize talent analytics
 - Recommendation 02: Hold hiring process stakeholders accountable for faster decision making
 - Recommendation 03: Decrease post-testing communication time for the candidates
 - Recommendation 04: Select interview dates and interviewers prior to the Hiring Plan Meeting

Task 2: Review Policies / Procedures and Interview Personnel

- B. Current process relies heavily on paper:** Throughout the hiring process, wet signatures on paper are required at key steps and, with no back-up signatory, the process is slowed.
- Recommendation 05: Implement a digital workflow to autoroute forms and utilize electronic signatures and assign a back-up signatory
 - Recommendation 06: Implement digital interview note-taking, scoring, and uploading of candidate results
- C. Hiring process perceived as inconsistent:** Some Hiring Managers shared that the hiring process seems to differ occasionally, allowing them to take certain actions in one hiring process, but prohibiting them from those same actions in another hiring process.
- Recommendation 07: Improve communication between TA and Hiring Managers regarding changes in the hiring process
- D. Metro's hiring process, though inefficient, is effective:** Most Hiring Managers communicated that they were pleased with the quality of their selected candidate. One step in the hiring process used to improve its effectiveness, even if it increases time-to-hire, is department interviews. By using department interviews to increase the amount of time getting to know a candidate, Hiring Managers can gain a better sense of the quality and fit of a candidate.
- Recommendation 08: Encourage greater use of department interviews
- E. Qualified Candidate Pools (QCP) are limited to the job title of the original vacancy:** Candidates in QCPs are only accessible to Hiring Managers for positions that share the same job title. Regardless of how similar the requirements (e.g., Minimum Qualifications [MQs]) are to other positions, the job titles must be an exact match in order to access the candidates out of an existing QCP, creating a missed opportunity.

¹ The findings and recommendations listed in *Task 1: Gather Background Information* were derived from the activities completed by the Project Team in Task 1; any findings and recommendations that were derived during Task 2 are listed in the Task 2 section of the report. The same is true for Tasks 3, 4, and 5.

- Recommendation 09: Allow QCPs with similar MQs to be shared
- F. **The hiring process lacks clear ownership:** Some Hiring Managers reported that they do not feel empowered throughout the hiring process because some processes and policies prevent them from making the hiring decisions that are best for their operation. For example, some Hiring Managers reported having to interview candidates that they did not think were qualified. In addition, when determining what salary to offer a candidate, the Compensation Analyst and Hiring Manager may disagree on which past work experience is deemed “relevant.”
 - Recommendation 10: Clarify decision-making roles and responsibilities throughout the entire hiring process
 - Recommendation 11: Grant Hiring Managers greater decision-making authority in screening
- G. **Change in Applicant Tracking System (ATS) presents opportunities and challenges:** The functionality of Metro’s future ATS, OTAC, will strengthen TA’s ability to collect and analyze critical data points, as well as provide a more automated, less paper-filled process.
 - Recommendation 12: Ensure full adoption of the OTAC system coupled with adoption of an effective change management process
- H. **Hiring process equity and efficiency are sometimes in conflict:** Metro has instilled the value of equity into its organization and hiring process, which has the unintended consequence of making parts of the process inefficient.
- I. **Multiple approvals impede the path to posting:** The decision to only post internally requires approval from Equal Employment Opportunity (EEO), and the addition of any preferred qualifications to the job description requires approval from EEO and Compensation, both of which result in delays to the hiring process.
- J. **Recent changes to position descriptions limit Hiring Managers:** To reduce the number of job descriptions, Metro recently consolidated existing job descriptions by making them more general. Although beneficial, Hiring Managers have been frustrated by the lack of specificity in the job descriptions, which limits their ability to attract the ideal candidate and slows the hiring process.
 - Recommendation 13: Expand Hiring Managers’ influence by allowing additional Minimum Qualifications to a position
- K. **Hiring Managers are ambivalent about blind screening:** Many Hiring Managers have acknowledged the theoretical benefits of blind screening, the process by which a candidate’s identifying information is removed from the application, but have voiced frustration with the process. In addition, recent peer-reviewed research questions the effectiveness of blind screening as a mechanism for increasing hiring diversity.
 - Recommendation 14: Reevaluate the use of blind screening in 12 months
- L. **EEO’s current role questioned by other stakeholders:** Many Hiring Managers are uncertain regarding how much authority they have in the hiring process and feel disempowered to make decisions because EEO approval is required to (1) post positions only internally, (2) add any preferred qualifications to the job descriptions, and (3) select a candidate. This frustration is compounded by the fact that EEO’s current involvement lengthens the time-to-hire while, according to Hiring Managers, providing questionable value as EEO rarely finds a basis to withhold concurrence from a Hiring Manager’s selection.
 - Recommendation 15: Transition EEO role from active participant to advisor, auditor, and trainer
- M. **Information requests made of candidates can extend the time-to-hire:** During Employment Certification, candidates might be asked to supply additional reference information and proof of educational experience, which may result in delays in the time-to-hire if the candidate’s response, or the third party entity providing confirmation of information, is slow.

- Recommendation 16: Utilize self-service portal for candidates to provide evidence of education and references
- N. **The Hiring Plan Meeting is a critical step in the hiring process:** The Hiring Plan Meeting was cited by Hiring Managers and TA Analysts alike as one of the most important steps in the hiring process, as it serves as a forum where the key stakeholders in the hiring process share their expectations of the recruitment itself and for one another. This is a key component in the process that should remain unchanged and consistently occur.

Task 3: Interview New Hires

- O. **Lengthy gaps of time between the hiring process steps leave Hiring Managers and candidates “in limbo”:** Although many candidates communicated that they moved through most of the individual hiring process steps rather quickly, the time in between steps was lengthy, leaving the candidate and the Hiring Manager uncertain as to their status and potentially frustrated.
 - Recommendation 17: Provide stakeholders with the ability to receive live application status updates
- P. **Promotion process mirrors hiring process:** Metro lacks a true promotion process in that the promotion process for internal candidates is nearly identical to the hiring process for external candidates, who are often the internal candidates’ competition.
 - Recommendation 18: Communicate to Metro employees why it lacks a promotion process
- Q. **Various factors contribute to a candidate’s decision to accept or decline an offer of employment from Metro:** Input from both internally-promoted and externally-hired employees regarding their top reasons to accept a position at Metro revealed that “Salary,” “Opportunity for growth,” and “Job duties” were most important. Candidates who withdrew from Metro’s hiring process or declined a job offer confirmed that the biggest motivator for their decision was being offered a lower salary than they anticipated based on the full salary range for the position for which they were applying.
- R. **TA Analysts identified as helpful and professional despite challenges in turnover:** Candidates describe that, once contacted, the TA Analyst assigned to their recruitment is helpful and professional. In addition, candidates and Hiring Managers cite TA Analysts as being responsive, even if they are unable to provide a specific update or answer the question asked. New hires almost always reported knowing who to contact with questions during their hiring process and shared that they were confident that their TA Analyst would respond to inquiries in a timely manner.
- S. **Metro’s application portal lacks key functionality:** Candidates reported frustrations with the current Metro Applicant Tracking System (MATS; soon to be replaced with OTAC) including the system’s response word limits, the inability to save and return to the portal later, and the inability to format answers. Hiring Managers expressed frustration with the lack of transparency in MATS because they are unable to access and track the hiring process.
 - Recommendation 19: Ensure OTAC’s application portal meets candidates’ needs
- T. **There is a lack of communication after application submission:** Although candidates receive an automated message upon submission of their application, candidates reported having to wait up to six months to be contacted by a TA Analyst, even after the posting has been taken down.
 - Recommendation 20: Update auto-generated communications to applicants after application submission to improve hiring process expectations
- U. **Candidates are given flexibility in scheduling their test:** Candidates who were required to take a pre-employment test acknowledged that Metro was often flexible to accommodate their availability. Metro permits out-of-state candidates to test remotely. Metro also allows in-state

candidates some choice as to when to take their test. Candidates noted that they appreciated Metro's effort, improving the candidate experience.

- V. **Increased interview standardization limits authentic conversation and increases time-to-hire:** Interviewers are required to provide thorough evidence supporting their interview scores. Because of this requirement, interviewers are often more focused on taking detailed notes, an unintended consequence of which is the depersonalization of the interviews. The standardized questions, which do not allow for a deep discussion of the candidate's experience, interests, character, or potential, coupled with the need for interviewers to take detailed notes, limits the rapport between candidate and interviewer.
 - o Recommendation 21: Institute a combination of standardized and non-standardized interview questions
- W. **Candidates are unclear as to what their placement in the QCP means:** Although most candidates reported receiving an automated email notifying them of their placement in the QCP for 18 months, some candidates reported not being aware of their placement and not understanding the implications of being in a QCP.
 - o Recommendation 22: Update initial communication to candidates placed on QCP
 - o Recommendation 23: Send periodic automated emails to candidates in QCP to keep them engaged and aware of opportunities for which they may be considered
- X. **Time-to-hire benefits are often realized following QCP:** The benefits of a QCP on the overall time-to-hire are often realized once a candidate from the QCP is identified for a vacancy. Employees hired from the QCP explained that, once contacted, the next step in the hiring process – whether department interview or tentative offer – moved expeditiously.

Task 4: Evaluate compensation determination process

- Y. **Misalignment between the information gathered in the application and the information needed during compensation process extends time-to-hire:** The employment application at Metro requests a candidate's previous 10 years of professional experience. However, to ascertain the appropriate compensation level, additional experience beyond the 10 years, if applicable, is required. Obtaining this information can lengthen the hiring process.
 - o Recommendation 24: Request complete employment history earlier in the process
- Z. **Stakeholders lack transparency into compensation determination process:** Throughout the 2-6 weeks needed to determine compensation, candidates and Hiring Managers shared that they experienced frustration with (1) the lack of transparency regarding how the process works, and (2) why the process takes so long. Additionally, internal candidates report being unaware of how their compensation is calculated, including the 15% salary increase cap. This lack of transparency can lead to discontentment and the spread of incorrect information.
- AA. **Salary calculations based on relevant years of experience:** The Compensation Analyst and Hiring Manager may differ on whether to deem certain candidate experience as "relevant" to the position. Because the number of years of relevant experience directly impacts the salary being offered, any disagreements between Compensation and the Hiring Manager require resolution, a time-consuming process. In addition, Hiring Managers voiced frustration that the salary calculations do not account for other candidate characteristics, including the *quality* of their years of experience and personal aptitude.
 - o Recommendation 25: Consider characteristics other than years of direct work experience when determining salary offers and when screening applications
- BB. **Out-of-range salary pursuits are beneficial, though they may require multiple signatures:** Obtaining "Hard-to-Fill" approval or appealing to the CEO, two mechanisms for attracting qualified

candidates who may, because of salary, be disinclined to accept a job with Metro, require multiple signatures and increases time-to-hire.

- Recommendation 26: Reduce required memos and forms and expedite their completion

CC. Salary calculations are inequitable between internal and external candidates: External candidates' salary offers are calculated differently than internal candidates' salary offers because Metro already knows the salary of the internal candidates. Internal candidate compensation is capped at 15% greater than their current salary, with a minimum increase of 5%, whereas external candidates' compensation is not limited in the same way.

- Recommendation 27: Consider increasing the 15% cap on raises for internal candidates

DD. Benefits and employment opportunities compensate for competitive hiring market: Metro's non-salary compensation and benefits are attractive to candidates and provide them with quality candidates even though the salaries being offered do not often meet the candidate's wishes.

EE. Salary ranges on job postings lead to unfulfilled expectations: Job postings include the full salary range. Given the quartile salary system utilized at LA Metro, the salary range is often quite wide, with up to an \$80,000 difference between the high and low ends for a given position. This provides external candidates with an unrealistic expectation of the salary offer they will receive, because the starting salary is typically at the lower end of the range.

- Recommendation 28: Decrease the job posting salary ranges

Task 5: Compare Metro to Peer Organizations²

FF. Metro's most efficient peer outsources recruitment activities to the hiring department: The organization within the benchmarking cohort that had the quickest time-to-hire (2 months, on average) oversees the hiring process from a distance, allowing the hiring departments to manage the day-to-day activities of the process and make decisions as needed.

GG. Immature technology contributes significantly to peer's hiring inefficiencies: Like Metro, peer organizations lacked the robust Applicant Tracking Systems needed to digitize and automate the hiring process. This lack of technology resulted in common inefficiencies such as a paper-heavy process, redundant and manual activities, and little-to-no data collection or analysis.

HH. Peer organizations experience similar non-technological process inefficiencies as Metro: Two common non-technical inefficiencies that peer organizations face are (1) a lack of clearly-defined and commonly-understood roles and responsibilities between the hiring department and recruitment function, and (2) a cumbersome and lengthy compensation determination process.

II. Metro's hiring process steps are similar to the steps in peer organizations: Although they utilized different terms, the hiring processes between Metro and peer organizations are comprised of similar tasks and sequenced similarly.

JJ. Metro's time-to-hire appears to be middle-of-the-pack: None of the benchmarking cohorts possessed reliable hiring process data; however, using the estimates that were provided by these organizations, it appears that Metro's hiring process is neither substantially longer, nor shorter, than its peers.

² As part of Task 5, the Project Team completed benchmarking activities with peer organizations. Any findings resulting from these activities are included in Task 5 of this report, but any recommendations that were informed by the benchmarking activities are included with the recommendations found in Tasks 1-4.

BACKGROUND

In an effort to better understand how Metro’s hiring processes may be enhanced to improve service to both its internal and external customers – which will, in turn, help meet its need to expediently and efficiently execute projects – Metro’s *Office of the Inspector General* (OIG) competitively selected the team of SCA Strategic Partnerships International and North Highland (Project Team), a local, Small Business Prime team, to conduct a hiring process study. The study was commissioned with the following four objectives:

- Determine if there are areas where the hiring process could be streamlined (shortened), such as eliminating duplicative approvals or inefficient sequencing of steps, and making the process more efficient, applicant friendly, and transparent to the hiring department;
- Evaluate whether the personnel hiring process is adequately timely and operating effectively;
- Determine whether the compensation determination and administration processes are reasonable and effective to accomplish a speedy hiring process; and
- Determine how the applicant experience may be improved.

To meet the region’s growing transportation demands, Metro’s Board authorized the hiring of over 1,500 non-contract positions in the coming year. Consequently, the OIG commissioned a study of the organization’s non-contract hiring process, which commenced in spring 2020, to determine whether Metro’s personnel hiring process is efficient, and to evaluate its hiring policies and procedures. An efficient hiring process provides candidates with a positive hiring experience, improving the odds that they will remain in the hiring process and accept a job offer at its conclusion, and reduces the costs related to unfilled positions. For each additional day that a single vacancy is open, the average organization loses roughly \$407.³ Additionally, as a vacancy persists, organizations face the cost of employee burnout as existing employees try to compensate for vacancies.⁴ To best prepare LA Metro for a successful season of hiring, this report presents the findings and recommendations from this study.

Metro’s Talent Acquisition group (TA) is responsible for managing Metro’s hiring process. As Metro’s liaison between the candidates and the hiring departments, TA has three key “customers” to support and shepherd through the hiring process: (1) external candidates, (2) internal candidates, and (3) hiring departments. TA, through its charge to attract a qualified and talented workforce to Metro, is on the front lines of Metro’s mission to provide “a world-class transportation system that enhances quality of life for all who live, work and play within LA County.”

Overview of Study

This report is the culmination of the Metro Personnel Hiring Processes Study, conducted January 2020 through April 2020, and provides findings, based on the Project Team’s research, and recommendations to improve the efficiency and effectiveness of Metro’s current hiring process.

This study was focused on analyzing the hiring processes for the 315 non-contract, full-time employees who were hired, externally or internally, from July 1, 2018 to June 30, 2019 (Metro’s Fiscal Year 2019). This study does not address *contract* employees, which comprise the majority of Metro’s 10,219 FTE member workforce, nor does it address employees hired prior to, or after, FY2019.

³ *Accelerating Recruiting*, Gartner HR Leadership Council, 2015

⁴ Ibid.

This report also acknowledges where findings learned from those hired in FY2019 may differ from the current realities of Metro’s hiring processes at the time this report was submitted, as TA continues to make improvements to the hiring process.⁵ The evaluation of the hiring processes and experiences was not limited to candidates, but encapsulates all hiring process stakeholders, including Hiring Managers and TA staff. TA was extremely cooperative with, and accommodating to, the Project Team; they helped this study through supplying information, providing data, and making themselves available for numerous information-gathering sessions, whether in person or via phone. Similarly, Hiring Managers and recently hired employees, the latter of whom provided the candidate perspective, were responsive to interview requests and were very agreeable to providing input. Further information about this study, including details about the information-gathering methodologies utilized (e.g., interviews, focus groups, and survey), can be found in the “Methodology” sub-sections of the following five sections (Tasks 1-5).

Overview of Talent Acquisition

The Talent Acquisition (TA) group is one of 10 cost centers housed within the Human Capital & Development (HC&D) Executive Office (see [Figure 1](#)). HC&D is led by the Chief Human Capital & Development Officer, and TA is led by the Executive Officer of Talent Management. Within TA, the Director of Human Resources oversees recruitment and the Senior Director of Special Projects oversees compensation. Taken together, TA is charged with swiftly and effectively meeting LA Metro’s growing human capital demands.

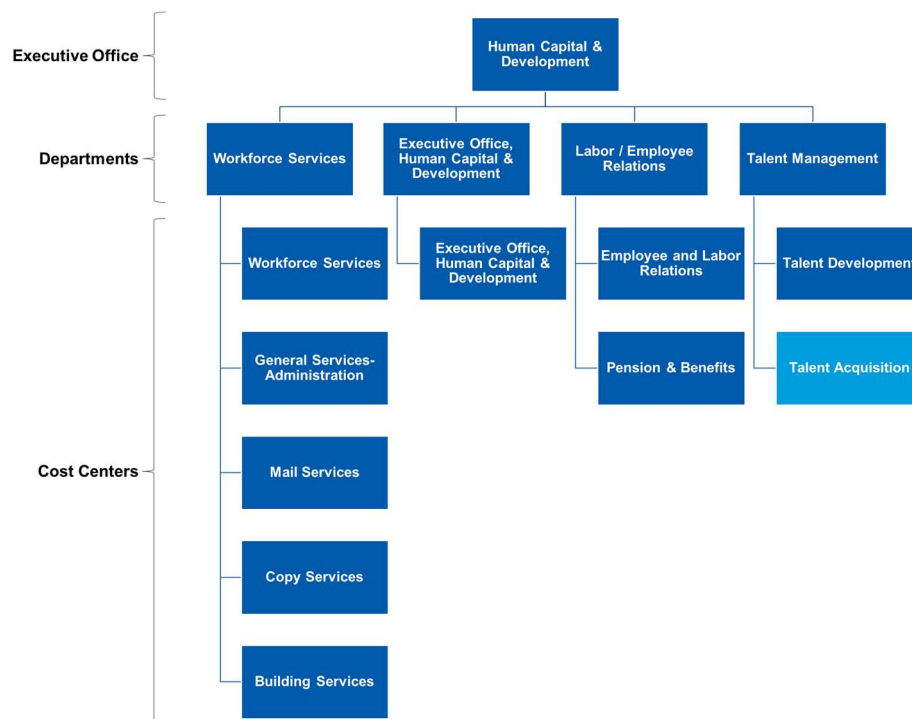


Figure 1: LA Metro Human Capital & Development Org Chart

⁵ For example, one change that has been made since many FY2019 hires relates to the requirement for a physical. Some non-contract employees hired in FY2019 were required to take a physical, while those hired into similar positions toward the end of FY2019 were *not* required to take a physical. This difference was the result of a change in policy whereby Metro removed the physical requirement for non-safety sensitive positions. As such, the requirement of a physical has been excluded from the report, as it is now antiquated.

Overview of Metro’s Hiring Process

For the purposes of this study, Metro’s hiring process is comprised of 10 main steps, beginning with the generation of a requisition by the Hiring Manager or HR Liaison to the department in which there is a vacancy, and ending when the selected candidate accepts their offer of employment, completes pre-employment processing, and begins their first day of work at Metro. (See [Figure 2](#).) These steps were determined to be the 10 main steps of Metro’s hiring process based on the Project Team’s research.



Figure 2: Overview of LA Metro’s Hiring Process

Each of these 10 *main* steps are discussed further below.⁶ (In addition, a detailed process map of Metro’s hiring process can be found in [Appendix 2](#).)

Requisition Generation and Hiring Plan Meeting

Metro’s hiring process begins with the electronic creation of a requisition in Metro’s Applicant Tracking System (MATS) by a department representative. The requisition then undergoes a position control check by a Systems Analyst. Upon verification, the requisition – along with the position control check – is submitted to the TA Principal Analyst who assigns the requisition to a TA Analyst. The TA Analyst then schedules and conducts the Hiring Plan Meeting with the Hiring Manager and, occasionally, a Compensation Analyst and/or an Equal Employment Opportunity (EEO) representative.⁷ (The EEO representative will attend the Hiring Plan Meeting if the position is for a “high-watch cost center,” a cost center within the organization that has diversity levels that Metro is closely monitoring. The Compensation Analyst might skip the meeting if they have worked with the Hiring Manager in the past.) Regardless of attendance, two documents are provided to the Hiring Manager during the Hiring Plan Meeting: the department requisition guidelines from EEO and the Salary Administration Guidelines from Compensation. The meeting concludes with the TA Analyst and the Hiring Manager signing the Hiring Plan Agreement.

Following the Hiring Plan Meeting, the TA Analyst posts the job bulletin. All bulletins are posted in MATS, which feeds directly into the organization’s Careers webpage. If a Qualified Candidate Pool (QCP) already

⁶ There *are* smaller steps in Metro’s hiring process which may not be illustrated in Figure 2 or in accompanying the explanatory text; an exhaustive map of the hiring process can be found in Appendix 2. In addition, at times, the actual execution of the hiring process may not perfectly match the 10 steps outline here; as such, the process described below should be considered the *typical* hiring process, with deviations from that process considered atypical.

⁷ If a position is frequently posted or if the TA Analyst has a close working relationship with the Hiring Manager, then the Hiring Manager and TA Analyst may already be aligned on the needs of the hiring process; in this case, the Hiring Plan Meeting may not be needed and, therefore, its absence may actually improve the time-to-hire. One Hiring Manager shared, however, that although the Hiring Plan Meeting may occur, it might be conducted via phone, be fairly cursory, and does not satisfy its intended goals.

exists for the position, then the candidates on the QCP are considered first. If a QCP candidate is not selected, or there is no QCP for the position, then the position is posted on Metro's Careers webpage. External job postings are auto-scraped to external sites, a method by which external search engines automatically read the job posting and, based on the content of the job posting, extracts to their posting sites. Additionally, jobs for external posting are forwarded to a third-party vendor who provides a list of position-specific external posting locations and their respective cost quotes to post. The TA Analyst can then select posting locations from the list provided, based on the budget provided by the hiring department.

Application Submission and Screening

After TA externally posts positions, candidates apply for positions in which they are interested through Metro's online Career portal. Applications then undergo a dual-screening process whereby they are screened by a TA Analyst for both minimum and preferred qualifications, and then passed – or “released” – to the Hiring Manager for their concurrence. (TA will pass along the candidates who meet the MQs.) Once a decision is made in the screening process, a candidate's status is updated in MATS, which triggers an automated email to each candidate with a status update. Candidates are then invited for a test or interview.

When there is an existing QCP, two approaches can be taken. In the first, each candidate in the QCP is interviewed. In the second (and more common) approach, candidates in the QCP are provided with supplemental questions to answer if they wish to be considered for the search currently underway. These questions are derived from the preferred qualifications identified by the Hiring Manager. Submitted answers are evaluated using a dual-screening process, the same process that would be used if the hire was being conducted with non-QCP candidates.

Testing

Not all positions require testing as part of the hiring process. Some positions, such as those that are part of a series (e.g., Admin I, Admin II), require testing, while others are at the discretion of the Hiring Manager, a decision made during the Hiring Plan Meeting. Currently, all tests are administered in-person at LA Metro unless a candidate is applying from out-of-state, in which case they can complete the test remotely. Upon completion, multiple-choice exams are graded by scantron machine and written exams are graded by two or three subject matter experts under the supervision of a TA representative.

Appraisal Interview

Candidates selected during the screening process for recruitments that do not require tests, or candidates who passed their test, are then invited to an appraisal interview. Appraisal interviews are conducted by a panel with a minimum of three interviewers, all of whom are selected by the Hiring Manager. Panels must meet three criteria:

- The members must be diverse in gender and ethnicity;
- One panelist must be from outside of the hiring department; and,
- All three panelists must have a salary pay grade equal to or higher than the position for which they are interviewing.

Panel members meet with the TA Analyst prior to, and after, the interview to brief and debrief, respectively. Scores from the appraisal interview are then entered into MATS, which auto-sorts candidates into the QCP based on a previously-determined scoring threshold.

Qualified Candidate Pool (QCP) Creation

Interviewed candidates whose scores meet or exceed the minimum threshold are placed in a QCP for that position.⁸ The purpose of the QCP is to retain a pool of pre-qualified candidates for 18 months, to reduce the time-to-hire for future vacancies of the same position by removing the need to post the position, screen the applications, and conduct appraisal interviews. All applicable candidates, regardless of how soon they will proceed to the next step in the hiring process, are placed in the QCP. Candidates placed in the QCP are then certified through MATS to the Hiring Manager who adds information about each certified candidate. MATS autogenerates letters to candidates with a status update, either informing them of their place in the QCP or informing them that they are not proceeding in the hiring process.

Department Interview

If the Hiring Manager did not sit on the appraisal interview panel, or if more information is needed to select a candidate, a second, department interview is scheduled. The department interview differs from the appraisal interview in that, currently, the department interview questions are not vetted by TA, and the interview panel members and all documentation are most often prepared by the hiring department, although the TA Support Staff is available to help. Similar to the appraisal interview, however, the department interview must be a panel interview and adhere to the same panel member requirements. Other than those two differences, the department interview functions nearly identically to the appraisal interview.

EEO Concurrence

Once a candidate is selected, he or she is subject to EEO concurrence. To obtain EEO concurrence, the TA Analyst provides EEO with the candidate demographics for each step in the hiring process and submits a concurrence checklist. The EEO representative evaluates the selected candidate based on the current demographics of the cost center in which the position resides, along with the other candidates considered for the position. The EEO representative may have additional questions for the TA Analyst about the selected candidate, the nature of the search, and the demographic make-up of the QCP. Ultimately, EEO will either concur with the Hiring Manager's selection, granting their approval to proceed with the selected candidate, or not, in which case the TA Analyst and Hiring Manager will need to identify another candidate in the QCP. If another viable candidate does not exist in the QCP, the position might require re-posting.

Employment Certification

During Employment Certification, the TA Analyst contacts the selected candidate to confirm that the references supplied on the candidate's original application may be contacted. Once references are confirmed, TA Support Staff conducts reference checks. Simultaneously, the TA Analyst, knowing that compensation will be calculated based on work experience, will reach out to the candidate to request proof of their education, along with any additional work history not included in the application.

Compensation Determination

The compensation determination process begins when the TA Analyst submits a Salary Proposal Request to Compensation. The Compensation Analyst uses Metro's Salary Calculator (an Excel tool), to quantify the relevant years of experience and then applies those years, along with any degrees or certifications, to the Salary Administration Guidelines (SAG; a tool with the salary quartiles for a particular position), to determine the appropriate salary range. Once complete, both the Salary Calculator and SAG are submitted

⁸ The majority of candidates interviewed reported joining the QCP upon completion of the appraisal interview, a sequence TA also confirmed, though some candidates reported joining the QCP before the appraisal interview and after successful completion of the test.

to the Hiring Manager, who then selects the specific salary from the quartile's range. (The range is typically \$2,000 to \$4,000.) With the salary selected, the Compensation Analyst completes the Salary Proposal Form and submits it for department approval, including signatures from the Hiring Manager and, if the salary is above the quartile's median, from the Chief of the hiring department. Once signed, the Salary Proposal Form is returned to the Compensation Analyst who drafts and attaches a cover memo to the Form and circulates for additional approvals; these approvals most often include the Senior Director of Compensation, Executive Officer (EO) of Talent Acquisition, Chief HC&D Officer, and, if greater than \$175,000, the CEO. To many Hiring Managers and new hires, the compensation determination process is a significant source of delay in the overall hiring process, with the time to determine compensation running 2-6 weeks. A detailed process map of Metro's compensation determination process is in **Appendix 2**.

Pre-employment Processing

Pre-employment processing for external candidates includes completing employment paperwork and providing fingerprints for a criminal background check, on site, at Metro. External candidates entering safety-sensitive positions, or internal candidates whose prior role was not safety-sensitive, are also required to attend and pass a physical as part of the pre-employment process. The external candidate's first day on the job is typically for orientation, although some candidates start prior to orientation with the plan to attend later. An internal candidate, unless transitioning from a represented role to a non-represented role, which require attendance for certain parts of the orientation, works with their former and new managers to transition into their new role. The conclusion of this step is the hired individual's first day in the role.

Overview of Report

This report is divided into the five tasks in the Scope of Work (SOW). Each task is presented with an overview, methodology, findings and recommendations:

- **Task Overview** – the *Task Overview* provides a brief summary of the SOW task
- **Methodology** – the *Methodology* describes the Project Team's information-gathering activities
- **Findings and Recommendations** – the *Findings and Recommendations* present key findings learned during the team's four-pronged information-gathering activities:
 - Document and data review of hiring policies, practices, and procedures;
 - 58 in-person interviews;
 - Three focus groups with 24 total participants; and,
 - One online survey responded to by 121 employees (48% response rate)

This sub-section also presents the recommendations proposed by the team to improve Metro's hiring processes based on our analysis and findings.

TASK 1: GATHER BACKGROUND INFORMATION

Task Overview

As part of Task 1, the Project Team obtained a list of new hires from FY2019, collected time-to-hire information for those individuals, and analyzed the data.

Methodology

In Task 1, the Project Team gathered Metro’s time-to-hire data to analyze the efficiency of the hiring process. Due to Metro’s lack of robust data reporting capabilities with its existing Applicant Tracking System (ATS), called MATS (Metro’s Applicant Tracking System), and its reliance on the TA Analysts and staff to manually update each candidate’s status in a timely manner, the Project Team was unable to report a single statistically reliable and valid time-to-hire. Instead, this study utilized three distinct methods to gather time-to-hire data as outlined in [Figure 3](#). The three sources of data were: (1) Metro’s Applicant Tracking System (MATS), (2) new hire surveys, and (3) new hire in-person interviews.

Data Source	Time Frame	Number of Records	Start and End
1. Metro’s Applicant Tracking System (MATS)	FY2020 Q1 and Q2 ⁹	92	Requisition Creation to Offer Acceptance
2. Surveys ¹⁰	FY2019	121	Application Submission to Orientation
3. In-person Interviews ¹¹	FY2019	24	Application Submission to Orientation

Figure 3: Time-to-Hire Data Sources

While none of these three methods, individually, provide a holistic understanding of time-to-hire, the realities uncovered through these methods do, in the aggregate, provide compelling and reliable insights into the duration of the hiring process. In addition, because each source has a unique start and end point for quantifying time-to-hire, the three methods cannot be directly compared. Thus, the purpose of assessing these three sources of data is to create a comprehensive picture of time-to-hire from multiple perspectives and multiple sources.

The Project Team considered two specific perspectives when quantifying Metro’s overall time-to-hire: (1) the candidate’s time-to-hire, and (2) the Hiring Manager’s time-to-hire. Though similar, these two perspectives offer unique insight into the experience provided to TA’s customers through the hiring process. This distinction is critically important when seeking to gain a precise understanding of an organization’s time-to-hire. (Please note that the two subsections below explain the *Project Team’s* definition of “candidate time-to-hire” and “Hiring Manager time-to-hire”; these subsections are *not*

⁹ The data obtained from MATS is from FY2020, while the sample of employees for this study was selected from those hired or promoted in FY2019. FY2020 data was provided as it was the data most readily available and, being more recent, has the benefit of being more reflective of the current state of affairs than the data collected from FY2019.

¹⁰ Additional information about surveys can be found in Task 3’s “Methodology” subsection.

¹¹ Additional information about in-person interviews can be found in Task 3’s “Methodology” subsection.

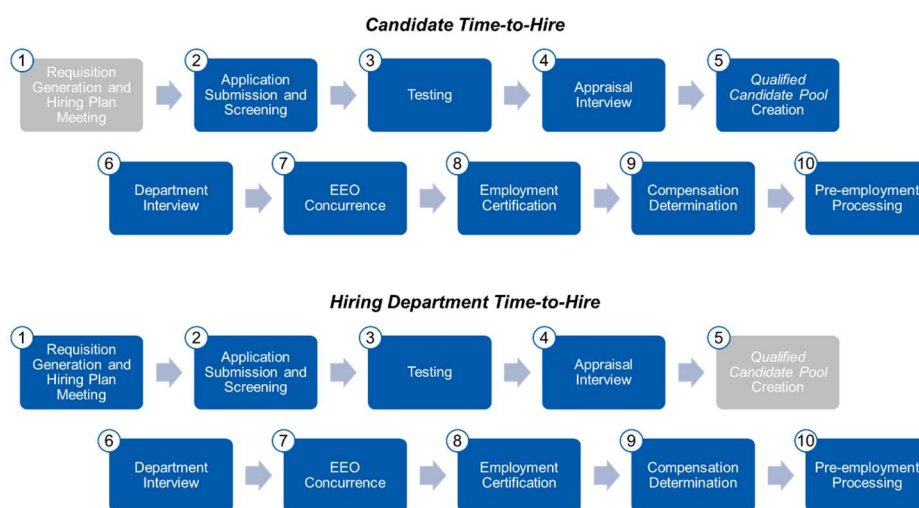
intended to define how Talent Acquisition conceptualizes these measures today. The ways that the Project Team and Talent Acquisition define these concepts differ. For example, the Project Team uses a time-to-hire endpoint of the day the hired candidate starts their job, while Talent Acquisition uses an endpoint of the day that the candidate accepts an offer. In addition, the Project Team includes the time a candidate spent on the QCP in their time-to-hire calculation, whereas Talent Acquisition does not.)

Candidate Time-to-hire

Candidate time-to-hire answers the question, “How long did a hired candidate wait to start their new job?” Therefore, a candidate’s time-to-hire should commence when the candidate submits an application and end when he/she begins their job.¹² As illustrated in Figure 3, only two of the three data sources used for this study utilized those start and end points. The candidate time-to-hire includes any time that the selected candidate may have spent in a QCP. (See Figure 4.)

Hiring Manager Time-to-hire

Hiring Manager time-to-hire answers the question, “How long did a department wait to get an employee into the vacancy?” Therefore, a Hiring Manager’s time-to-hire should commence when the department submits a requisition and end when the candidate begins their job.¹³ As illustrated in Figure 3, none of the three data sources used for this study utilized the start and end points needed to sufficiently capture the Hiring Manager time-to-hire. Thus, the Hiring Manager time-to-hire data provided below is extrapolated from multiple data sources. This process does not include any time that the selected candidate may have spent in the QCP because the Hiring Manager does not experience being in the QCP (up to 18 months) as a candidate would. (See Figure 4.)



¹² Some measurements of time-to-hire utilize the “date that the candidate accepted an offer of employment” as the endpoint, rather than, as outlined above, when the candidate actually began working. The Project Team prefers to utilize the date a candidate began his/her job because it accounts for (1) any post-offer tasks (e.g., paperwork, badging) that must be completed prior to the candidate beginning their job, and (2) any time off that the candidate asks for prior to beginning their new role. While the hiring organization has limited, if any, influence over the latter, other candidate-caused delays from earlier in the hiring process (such as poor candidate responsiveness or a candidate needing to schedule an interview later than the organization preferred because of an upcoming vacation) are accounted for in the time-to-hire; rather than trying to deduce which party is at fault for each individual delay, therefore, it is more straight-forward for time-to-hire to end when the candidate actually began working.

¹³ Ibid.

Figure 4: Steps in Candidate and Hiring Manager Time-to-hire

Findings and Recommendations

Finding A: Time-to-hire varies by requisition

Across three sources, two themes appear: (1) time-to-hire does vary by department or level, but more substantially by requisition, and (2) from a candidate's perspective, the longest parts of the hiring process (apart from their time on the QCP) are: the time between application submission and first contact from Metro, the time following the completion of a test until next contact, and the time of the compensation determination process.

Source 1: MATS data

Time-to-hire data collected in MATS, which was provided by TA, is based on the number of workdays, beginning with the creation of the requisition and ending with the selected candidate's offer acceptance. (This does not include the time between the candidate accepting the offer and the candidate starting at Metro, which may range from two to six weeks). The MATS data is unreliable as the *sole* source of time-to-hire date because the process is manual, requiring the manual input of the candidate's status. Metro recently purchased a new ATS, the Oracle Talent Acquisition Cloud (OTAC). Use of OTAC can improve time-to-hire tracking capabilities by removing its reliance on user entry.

Data pulled from MATS on time-to-hire for FY2020's Q1 and Q2¹⁴ (n=92) disclosed an average time-to-hire of 65 workdays, though the averages vary by department, cost center, and title.¹⁵ For example, by Department, the highest average time-to-hire at Metro is 85 workdays (for Information Technology), while the lowest average time-to-hire is 36 workdays (for Chief Policy Office; n=1). This range increases when looking at average time-to-hire by Cost Center, which has a high of 148 workdays (for Federal/State Policy and Programming; n=1) and a low of 23 workdays (for Executive Director Maintenance and Engineering; n=1 *and* Office of Management and Budget; n=2). Similarly, the average time-to-hire by position titles ranges from 133 workdays (for a Director of System Projects; n=1) to 3 workdays (for a SR HR Analyst; n=1). Therefore, because this data is pulled from a system that requires manual updates, the results may not possess unquestioned veracity, especially when juxtaposed with time-to-hire data pulled from the other two sources.

Source 2: Survey data

A second source for time-to-hire data was a survey transmitted to 276 individuals hired or promoted in FY2019. Of these 276, 121 (43.8%) responded, of which 36 were external candidates and 86 were internal candidates. Each respondent was prompted to provide the length of each step in the hiring process, along with the time between each step.¹⁶ Averages were calculated based on the step-by-step estimates provided by the respondents. Additionally, to promote accuracy, the overall average calculations included only the time-to-hire estimates within +/-40% of the mean (removing the quickest 10% and lengthiest 10% of

¹⁴ The data acquired from MATS is from FY2020 while the sample of employees for this study was selected from those hired or promoted in FY2019. FY2020 data was provided as it was the data most readily available, and being more recent, has the benefit of being potentially more reflective of the current state of affairs than the data collected from FY2019.

¹⁵ As sample size decreases, so, too, does the sample's representativeness and reliability. When survey data is filtered, therefore, the sample size (n) decreases and thus limits the conclusiveness of the derived findings.

¹⁶ The estimates from employees were requested in total days, including weekends.

estimates provided, thereby reducing the impact of outlier data), omitted the time-to-hire estimates of those respondents who indicated they were “not confident” in the accuracy of their response, and were converted from total days to workdays. To allow for direct comparison with the time-to-hire from MATS, the data provided from survey respondents was converted from total days to workdays.

	Average Candidate Time-to-Hire ¹⁷	Average Hiring Manager Time-to-Hire ¹⁸
External Candidates	146 workdays (n=25)	111 workdays (n=23)
Internal Candidates	103 workdays (n=54)	77 workdays (n=56)

Figure 5: Survey Data Time-to-Hire¹⁹

The data provided in Figure 5 above illustrates that candidate time-to-hire, which includes time in the QCP, is longer than the modified Hiring Department time-to-hire, which does not include time in the QCP.²⁰ In both scenarios the time-to-hire is longer for external candidates than internal.

Time-to-hire data from the same dataset was also evaluated by department, as seen in Figure 6. Just as above, average time-to-hire was calculated with estimates that fell within +/-40% of the mean, omitted the time-to-hire estimates of those respondents who indicated they were “not confident” in the accuracy of their response, and were converted from total days to workdays. Figure 6 illustrates that time-to-hire varies across department, though with such small sample sizes definitive conclusions should not be drawn.

Department	Average Candidate Time-to-Hire ²¹	Average Hiring Manager Time-to-Hire ²²
Board of Directors	151 workdays (n=2)	76 workdays (n=1)
Chief Executive Office	67 workdays (n=7)	67 workdays (n=8)
Communications	71 workdays (n=7)	70 workdays (n=6)
Congestion Reduction	113 workdays (n=1)	124 workdays (n=2)
Finance and Budget	199 workdays (n=8)	93 workdays (n=7)
Information Technology	110 workdays (n=5)	100 workdays (n=5)
Operations	118 workdays (n=15)	94 workdays (n=14)

¹⁷ Average Candidate Time-to-Hire calculates time-to-hire beginning with application submission and ending on their first day in their new role; this time includes the average time a candidate spends in the QCP.

¹⁸ Average Hiring Manager Time-to-Hire calculates time-to-hire beginning when candidates submit their applications and ending when a selected candidate comes to LA Metro for the first day of their new role; this calculation does not include a candidate’s time on the QCP, nor does it include the first step in the process: Requisition Generation and Hiring Plan Meeting.

¹⁹ Sample sizes may differ from one metric to another because survey responses were omitted from the sample if the respondent (1) indicated that they were “not confident” in the accuracy of their estimates, or (2) provided data that was not in a format that could be interpreted, quantified, or analyzed.

²⁰ As noted previously, the Hiring Department time-to-hire captured in the survey does not account for the initial step in the hiring process – Requisition Generation and Hiring Plan Meeting – and, therefore, is considered “modified.”

²¹ Average Candidate Time-to-Hire calculates time-to-hire beginning with application submission and ending on their first day in their new role; this time includes the average time a candidate spends in the QCP.

²² Average Hiring Manager Time-to-Hire calculates time-to-hire beginning when candidates submit their applications and ending when a selected candidate comes to LA Metro for the first day of their new role; this calculation does not include a candidate’s time on the QCP, nor does it include the first step in the hiring process (Requisition Generation and Hiring Plan Meeting).

Planning and Development	119 workdays (n=14)	109 workdays (n=14)
Program Management	105 workdays (n=16)	73 workdays (n=18)
Vendor/Contract Management	136 workdays (n=4)	68 workdays (n=4)

Figure 6: Survey Data Time-to-Hire by Department^{23 24}

The survey data not only provides information on the total time-to-hire, but it provides data segmented by each step in the hiring process. Specifically, as provided in Figure 7, the data shows that the lengthiest parts of the hiring process are: (1) the time between application submission and first contact from LA Metro, (2) the time between the test (for those who are required to take one) and post-test contact from LA Metro, and (3) the compensation determination process.²⁵

Hiring Process Step ²⁶	Average Internal Candidate Time-to-Hire (n=48)	Average External Candidate Time-to-Hire (n=25)
From application submission until first contact from LA Metro (either invitation to test or appraisal interview)	26 workdays	38 workdays
From time of contact from LA Metro to test (for requisitions requiring test)	10 workdays	8 workdays
From test completion to invitation to appraisal interview	19 workdays	35 workdays
From appraisal interview invitation to completion of interview	9 workdays	6 workdays
From completion of appraisal interview to notice of placement in QCP	8 workdays	7 workdays
Time in QCP ²⁷	39 workdays	46 workdays
From department interview invitation to department interview (if department interview required)	4 workdays	6 workdays
From completion of department interview to request for employment certification information	7 workdays	18 workdays
Employment certification process	9 workdays	7 workdays
Compensation determination process	25 workdays	21 workdays

²³ Sample sizes may differ from one metric to another because survey responses were omitted from the sample if the respondent (1) indicated that they were “not confident” in the accuracy of their estimates, or (2) provided data that was not in a format that could be interpreted, quantified, or analyzed.

²⁴ As sample size decreases, so, too, does the sample’s representativeness and reliability. When survey data is filtered, therefore, the sample size (n) decreases and thus limits the conclusiveness of the derived findings.

²⁵ The segmented hiring times provided do not include all survey respondents, as some responses were removed during data cleaning because they were not marked clearly.

²⁶ Respondents were instructed to omit steps for which they did not participate (e.g., test or department interview), therefore the number of respondents for each step varies.

²⁷ “Time in QCP” is the average length of time candidates reported being in the QCP. This can range from a candidate who, following the appraisal interview, moved seamlessly to the next step in the hiring process, to a candidate who waited in the QCP for up to 18 months before moving ahead in the process for a position.

From final compensation offer to background check	4 workdays	6 workdays
Background check	5 workdays	11 workdays
Orientation/first day	5 workdays	9 workdays
Total	170 workdays	218 workdays

Figure 7: Survey Data Time-to-Hire by Step²⁸

Further information about the survey can be found in **Appendix 3**.

Source 3: Interview testimony

The third source of data utilized in this study was interview testimony. Like the data gathered from MATS, the interview testimony data is not statistically reliable, as it relies on self-reported data.²⁹ While these numbers should not be relied on for their accuracy, self-reported data can serve as diagnostic data and demonstrate directional correctness. According to internally and externally sourced employees, the time-to-hire estimates range from 1 month to 1.5 years. (See **Figure 8**.) The data provided below are the average estimates of candidate times-to-hire from internal (n=9) and external (n=15) candidates, beginning with application submission and ending with their first day in their new role. Despite the small sample size, the data below indicates that the hiring process can be lengthier for external candidates than for internal candidates, meaning that on average, the time-to-hire is between 3 and 4 months for external candidates as compared to 1-2 months for internal candidates.

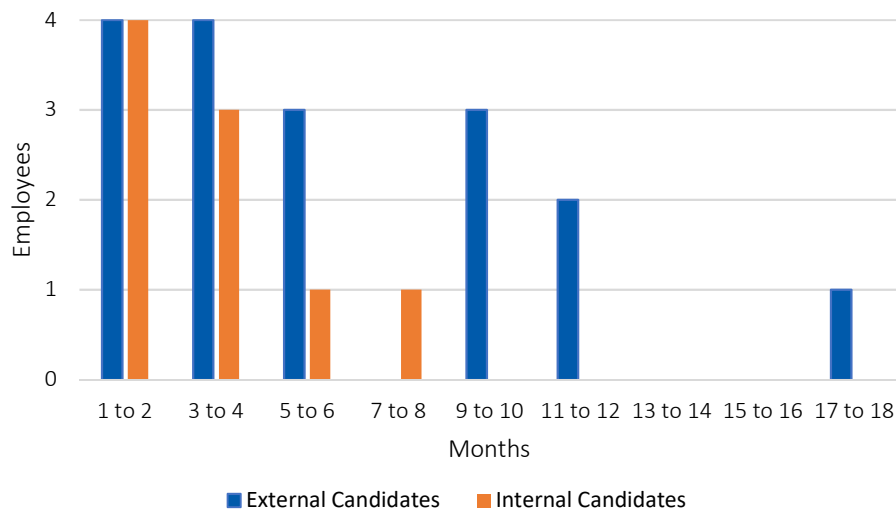


Figure 8: Interview Testimony Time-to-Hire

Further information about the interviews conducted can be found in **Appendix 3**.

²⁸ Sample sizes may differ from one metric to another because survey responses were omitted from the sample if the respondent (1) indicated that they were “not confident” in the accuracy of their estimates, or (2) provided data that was not in a format that could be interpreted, quantified, or analyzed.

²⁹ The employees interviewed for this information seldom brought evidence of their hiring experience with them from which to identify exact dates, and thus were recalling their experience from memory.

Recommendation 01: Employ OTAC, Metro’s new Applicant Tracking System, to obtain and utilize talent analytics

TA’s current recruitment technology *does* possess some analytical functionality, allowing TAA to track measures such as time-to-hire. With the adoption of OTAC, a more reliable tool for collecting data than its predecessor, comes the opportunity to increase TA’s current data analytics capabilities. Specifically, data from OTAC, when integrated with Metro’s Human Resource Information System (HRIS), can provide TA invaluable insights into workforce planning, recruitment spending, and predicting attrition. Additionally, OTAC can be leveraged to quantify *descriptive* measures, such as talent acquisition activity (e.g., time-to-hire), efficiency (e.g., segmented time-to-hire), and performance (e.g., applicants-per-hire), along with future-oriented measures that are *predictive* (which project what will happen in the future) and *prescriptive* (which explain what Metro *should* do). With these more future-oriented analytics, Metro can identify if a candidate will be a good fit for the organization, their level of performance, and how likely they are to remain at Metro. (To do this, these models gather data on employees who perform well on the interested measure[s] and determine the degree to which candidates share attributes with those high-performing employees.) Tracking candidates and their trajectory at Metro should result in shorter times-to-hire, decreased expense-to-hire, and decreased turnover. Understanding that the transition from data collection to analysis can be difficult, an accessible starting point with analytics is correlations.³⁰ For example, measuring the relationship between various factors, such as salary or cost center, and turnover may illuminate trends for further research.³¹ ³² With any future data collection and analytics efforts, it is critical that the parameters be clearly defined and consistently kept to ensure the reliability and validity of the data.

Recommendation 02: Hold hiring process stakeholders accountable for faster decision making

Throughout Metro’s hiring process, different stakeholders are responsible for different actions that move the hiring process forward. Primarily, Hiring Managers, TA Analysts, EEO representatives, and Compensation Analysts own steps in the hiring process, along with the leaders of TA and Compensation. While not intentional, stakeholders can cause delays in the hiring process by not expeditiously completing their step, and delays from just one of these stakeholders can impact the overall time-to-hire. Creating an accountability matrix along with internal “Service-Level Agreements” (SLAs) to clarify timeline expectations among critical stakeholders in the recruiting process holds stakeholders accountable to complete their tasks within the timeframe agreed upon in the SLA.³³ These SLAs – like the ones a technology vendor would have in place with their client – outline the service level that the “client” expects from the service provider. An SLA creates a shared understanding of the time each step in the hiring process should take to ensure all stakeholders are aligned. In practice, the SLA could be completed as either (1) part of the Hiring Plan Meeting where many of the stakeholders for a hiring process are present, or (2) digitally via email.

Recommendation 03: Decrease post-testing communication time for the candidates

Candidates who complete a test as part of their hiring process reported varying gaps of time before hearing from Metro again. Some candidates were contacted with test results and information about the next step in the hiring process within a week of their test date. For others, the time between test and follow-up communication was more than a month. External candidates, for example, reported that, on average, they did not hear back from Metro for 35 workdays (or seven weeks); internal candidates averaged 19 days (or almost four weeks). In the absence of prior communication from Metro as to when a candidate can expect

³⁰ *These 3 Talent Trends for 2020 Focus on Empathy*, SHRM, 2020

³¹ *20 Recruiting Metrics (and how to calculate them)*, Hire by Google, 2019

³² *Targeted Recruiting Metrics Will Improve Hiring*, SHRM, 2016

³³ *Twenty-Seven Ways to Recruit Faster*, Gartner HR Leadership Council, 2015

to hear a status update, many candidates assumed that they did not pass the test and sought employment elsewhere. Two steps can be taken to improve a candidate's hiring experience following the testing step. First, provide candidates with an expected time frame as to when they should hear from a TA Analyst. Second, TA should create a post-test contact goal date, or a date by which candidates who completed a test should be contacted. Creating a feasible goal to adhere to will provide a shared expectation across TA for when candidates should receive an update on their candidate status and ease candidate anxieties.³⁴

Recommendation 04: Select interview dates and interviewers prior to the Hiring Plan Meeting

One part of the interview process that can lengthen time-to-hire is scheduling the panel interviewers. Because Hiring Managers are relatively senior employees, finding time on their calendars can be challenging; this is compounded, of course, by the need to find a few dates and times that work for all three panelists. Therefore, the Hiring Manager and the TA Analyst should use the Hiring Plan Meeting to establish and set the hiring process schedule, including interview dates and times. This would require the Hiring Manager to complete some pre-work for the meeting, as they would need to identify the interviewers on their panel *and* coordinate with those interviewers' schedules, but the benefits of getting this information scheduled in advance will help improve the hiring process's efficiency. By setting the hiring process schedule and the interview dates and times at the *beginning* of the hiring process, Metro can expect to see a decrease in time-to-hire. Additionally, use of OTAC for online scheduling at the beginning will improve timeliness. In addition to these time-to-hire benefits, selecting these dates at the Hiring Plan Meeting provides accountability to both the TA Analyst and the Hiring Manager to complete the preceding hiring process steps (e.g., application screening) in an expedient manner.

³⁴ Prior to establishing a goal, it is important to understand all of the stakeholders who may impact the ability of TA to meet that goal. For example, if a Hiring Manager is responsible for grading the tests and takes a long time to send the grades to the TA Analyst, then the Analyst should not be penalized for the delay because they were not responsible.

TASK 2: REVIEW POLICIES / PROCEDURES AND INTERVIEW PERSONNEL

Task Overview

In Task 2, the Project Team had two main activities: (1) collect and review Metro’s policies and procedures related to the hiring process, and (2) interview various personnel to understand the Talent Acquisition’s processes for hiring new employees.

Methodology

The initial phase of Task 2 consisted of gathering relevant information. Some of this was provided through document and data requests. Metro’s OIG and the HC&D Executive Office (EO) provided the Project Team with, among other items, the following resources:

- FY2019 organizational charts
- FY2020 organizational charts
- A list and description of all of Metro’s policies
- A list and description of Metro’s HR policies
- Policy documents for HR 7, HR 10, and HR 31
- Survey results outlining hiring department’s perceptions about Talent Acquisition
- Requisition-to-hire data for non-contract positions
- A presentation summarizing Talent Acquisition’s activities for Q1/Q2 of FY2020
- Internal tracker of why candidates declined a job offer from Metro
- Guidelines for the salary placements of new hires and promoted employees
- Standard Operating Procedures (SOPs) for Compensation regarding salary administration
- A sample job application
- A sample Candidate Certification form
- An Appraisal Interview question guide
- An Ideal Candidate Profile
- A sample Salary Proposal form
- Ad-hoc news articles regarding hiring at other governmental or transit entities

In addition to reviewing documents and data, the Project Team gathered information directly from Metro employees involved in the hiring process, including TA staff and Hiring Managers. Representing Talent Acquisition staff – or, in some cases, representing HC&D more broadly – the Project Team spoke with, among others, the Chief Human Capital & Development Officer, Executive Officer of Talent Management, Director of Human Resources, Senior Director of Special Projects, and Deputy Executive Officer of Workforce Services. The Project Team also spoke with 20 different Hiring Managers who volunteered to be interviewed in response to an OIG email to Metro’s Senior Leadership Team (SLT); these Hiring Managers spanned the organization’s departments and ranged from lower-level Hiring Managers to C-suite executives.

Findings and Recommendations

Finding B: Current process relies heavily on paper

Despite the existence of the Metro Application Tracking System (MATS), a 15-year old tool tailored to each step in Metro’s hiring process, the hiring process at Metro is still heavily reliant on paper transactions in addition to some automation. Functions of the hiring process that are transacted on paper include:

- **Hiring Plan Meeting:** EEO department requisition guidelines, Salary Administration Guidelines, confidentiality statement, Hiring Plan Agreement
- **Interviews:** Interview schedule, interview guidelines, interview questions, rating sheet, and the job bulletin
- **Compensation:** Salary Proposal Request, Salary Proposal Form, Salary Proposal Form cover memo
- **EEO Concurrence:** EEO Concurrence Form
- **Pre-employment Process:** Pre-employment Process Form
- **Reference Check:** Reference Check Approval Form

In addition to the monetary costs associated with purchasing paper and ink, paper processing transactions can contribute time “costs” to an organization, as they can easily and unintentionally lengthen the hiring process. In the salary proposal form, for example, a single form per candidate is created and requires a minimum of four wet signatures. At each step in the approval process, the document must be signed by hand and then the document is dropped off at the desk of the next individual, where it awaits the next person’s signature. This process continues with subsequent individuals until the form has received all signatures. Given the over 1,500 candidates that Metro is currently in the process of hiring, and intends to hire in the next 12 months, placing each document on a desk inadvertently opens the process to the possibility that other items may be placed on top of the hiring document, burying it, and risking that it may either be misplaced or lost, and not completed in an expedient manner. Moreover, if the form contains confidential information, utilizing paper may also put the organization at risk, albeit a slight one, by affording someone not intended to be part of the process the opportunity to see candidate information that they should not be permitted to see. These clerical errors are avoidable with a digital workflow solution that eliminates paper, improves process speed, increases transparency, inputs security protections into the process, and mitigates risk.

The Talent Acquisition Support Team bears the burden of analog tasks

In preparation for the appraisal interview, TA Analysts are tasked with preparing interview packets for each panel member. These packets include the interview schedule, interview guidelines, interview questions, a rating sheet, and the job bulletin. This paper-based task would be time consuming for the TA Analyst, but a team of TA Support staff are able to assist. The same group also helps with the time-consuming tasks of scheduling panelists and candidates for the appraisal interview. To set the TA Support Team up for success, the TA Analyst provides them with the information – including the number of candidates requiring interviews, a scheduling template, panelist names, and the interview schedule – that panelists need to commit to. While the additional capacity provided by the Support Team enables TA Analysts to focus on other more critical tasks, both (1) assembling interview packets, and (2) scheduling interviews are tasks that can be accomplished with a more advanced Applicant Tracking System, like the Oracle Talent Acquisition Cloud (OTAC) system TA is implementing currently, potentially reducing the need to use the Support Team for that process.

Recommendation 05: Implement a digital workflow to autoroute forms and utilize electronic signatures and assign a back-up signatory

One of the most inefficient aspects of Metro’s hiring process is the proliferation of paper. Many forms utilized in the process are paper-based and require wet-ink signatures. Beyond decreased time-to-hire and decreased organizational risk, two of the benefits that a digital workflow provides are increased accountability and transparency. Because the system is digitized, users are able to locate who has the form, any possible bottlenecks, and collect data on the responsiveness of signatories to mitigate future problems and provide greater transparency. In addition, Metro should establish a practice of allowing stakeholders

to designate back-up signatories to ensure that a stakeholder's temporary absence will not delay the hiring process.

The Project Team is unaware whether Metro's OTAC system currently being implemented has the ability to digitize, autoroute, and electronically sign forms. If it does, then Metro should quickly prepare for this feature by aggregating, updating, and digitizing key forms; if it does not, then Metro should inquire whether the OTAC system can be made to have that capability, or seek a solution that seamlessly integrates with OTAC that can provide this digital workflow capability.

Recommendation 06: Implement digital interview note-taking, scoring, and uploading of candidate results

Another way to decrease paper in the hiring process is to migrate interview note-taking from a manual process to a digital one. Digital note-taking during interviews not only decreases the amount of paper in the process, but also improves areas like document security and document storage by immediately and securely auto-routing interview documentation to the appropriate repository, which decreases manual tasks completed by TA staff such as scanning. In addition, taking notes via computer or tablet can also improve the interviewer experience for those who are expedient at typing, as they are able to more quickly and thoroughly capture what the interviewee is saying (as compared to paper-based note taking). (Computer-based note-taking, specifically, allows for better eye contact between the interviewer and interviewee because the interviewer does not have to look down at paper but is shifting their eyes between the computer screen and the candidate, both of which are in front of them.) OTAC may have the ability to provide this functionality to Metro, but cost-effective third-party applications are also available.

Finding C: Hiring process perceived as inconsistent

Some Hiring Managers describe the hiring process as inconsistent both *intra*-departmentally, across past hiring processes in the same department, and *inter*-departmentally, between a hiring process in their department as compared to a hiring process from the department of their peers. These perceptions in the process lead to a sense of frustration *intra*-departmentally, and inequity *inter*-departmentally. These "process inconsistencies" may be due, in part, to the changes TA is currently making to improve the hiring process in response to a recently completed assessment, or a lack of written documentation provided to TA Analysts and Hiring Managers for these newly-implemented changes. Another potential cause is that, often, process changes are announced to TA Analysts at meetings. Consequently, if not all TA Analysts are in attendance at that meeting, the analyst(s) not present may implement the changes at a different time, and thus follow different processes until caught up to the new policy. Consistency is an important attribute of any hiring process both to ensure equity and because standardization leads to economies of scale and improved efficiency.³⁵

TA Analysts also serve as the liaison between each department and TA, and are responsible for informing Hiring Managers of changes to the hiring process, which, depending on the news the TA Analyst bears, can sometimes cause a strain in the relationship between the TA Analyst and Hiring Manager. Furthermore, during the hiring process, some Hiring Managers may ask their TA Analyst to sit on their panel interviews to fill the required "non-department" seat. However, this has been, at times, misidentified by other Hiring Managers as a form of TA oversight for some departments, but not others.

³⁵ *Transforming the HR Function of HR Operational Efficiency*, Gartner HR Leadership Council, 2014

Recommendation 07: Improve communication between TA and Hiring Managers regarding changes in the hiring process

One of the ways to mitigate the perception of inconsistency, is by ensuring that there are forums or channels available to allow TA and Hiring Managers to communicate their concerns about the hiring process more generally, *beyond* the communication that occurs between the two groups when the Hiring Manager is trying to fill a vacant position. This effort at improved communication can take a variety of forms. TA can send Hiring Managers monthly emails outlining the changes that are being implemented, the reasons for the changes, and the impact the changes will have on the Hiring Managers. TA can also schedule quarterly meetings to present upcoming changes and ideas they are considering to improve the process and solicit input prior to implementing a change. When TA has sought this input in the past, it appears to have been helpful in gaining the cooperation and appreciation of the hiring departments. Regardless of the format, providing a mechanism for general hiring process updates to be provided to Hiring Managers will improve communication between TA and their internal customers, reduce Hiring Manager’s perceptions about process inconsistency, and allow TA to own the messaging around hiring process changes.

Finding D: Metro’s hiring process, though inefficient, is effective

Although most Hiring Managers noted that Metro’s hiring process was *inefficient*, most – if not all – of them communicated that they found the process to be *effective* in the end. In short, regardless of the amount of time it took, the process eventually resulted in the Hiring Manager obtaining a quality candidate to place into the vacancy. Although it is difficult to deduce the “opportunity cost” of a lengthy process – that is, the loss in quality that may have occurred by losing a higher-caliber candidate than the one that was selected – the near-universal contentment shared by Hiring Managers at the process’ outcome is a strength of the process.

Recommendation 08: Encourage greater use of department interviews

Department interviews are not a consistent step for all hiring processes. Indeed, they are only employed if (1) the Hiring Manager did not participate in the appraisal interview, or (2) the Hiring Manager requests another opportunity to evaluate candidates, as he/she feels unable to make a hiring decision with the information they currently have. This step is commonly used when hiring a candidate from a QCP, as the candidate may have submitted their initial application for that position within the past 18 months and/or to a different department (though candidates in a QCP for the same position/department for which they applied can be hired off of the QCP without an additional interview). Planning and scheduling a department interview with the requisite three-member panel is time consuming; therefore, a hiring process that includes a department interview is longer than a hiring process that does not include one. Regardless, the costs of a poor hire (e.g., a candidate who turns over quickly, a candidate who does not possess the adequate skillset), is much greater than the increases in time-to-hire that are associated with a department interview. In short, although using department interviews reduces the hiring process’s efficiency, it likely increases the process’s effectiveness. In this trade-off between efficiency and effectiveness, Metro stands to gain more from utilizing department interviews. The value of a department interview, however, should not be weighed identically for all positions. The more senior and skilled a position is, the more valuable a second interview; thus, the department interview should remain an optional step, though it should be encouraged for positions for which hiring is more difficult.

Finding E: Qualified Candidate Pools (QCP) are limited to the job title of the original vacancy

One purpose of the QCP is to retain pre-qualified candidates who have cleared the interview hurdle in Metro’s hiring process, in hopes of engaging either for the position to which they applied, or for a future position of the same title. Currently, QCPs are only available for openings that share the same position title. Hiring Managers are unable to access the candidates in a QCP with a different position title from their own

regardless of how similar the position descriptions or Minimum Qualifications may be. While this approach is sensible when two positions are disparate, this barrier may present a missed opportunity to expedite the recruitment process for positions that have overlapping areas of expertise.

Recommendation 09: Allow QCPs with similar MQs to be shared

Currently, a requisition that shares the exact job title of an existing QCP is required to consider the candidates in that QCP prior to posting externally. Doing so, leverages the talent already in Metro’s pipeline. Conversely, a requisition that does not share the exact job title of an existing QCP does not allow TA and Hiring Managers access to those QCP candidates regardless of how similar the position descriptions may be. Relying exclusively on position title alone is a missed opportunity to optimize QCP usage. Instead, the ability to access QCPs should be dependent on similarities in Minimum Qualifications (MQs). With MQs as the comparison tool, searches for positions similar to those for which Metro already has a QCP allows Hiring Managers and TA Analysts the option of screening candidates in the QCP; a step which can help streamline the hiring process. As part of this effort, Metro would need to ensure that all of the individuals in the QCP are made aware that once they enter the QCP, they are eligible for other positions with similar MQs and may be contacted for those positions in the future.

Finding F: The hiring process lacks clear ownership

One of the frustrations most-commonly communicated by Hiring Managers is what they perceive to be their lack of authority in the hiring process. Hiring Managers shared feeling restricted by the TA process, which prevents them from making the hiring decisions that are best to meet their department needs, especially given Metro’s current and Measure M operational demands.

“[Talent Acquisition] gives us [Hiring Managers] the broad parameters that we have to stay in because of consistency...But within the broad parameters, we need more discretion in evaluating candidates.”

Hiring Managers report that this lack of authority shows up throughout the hiring process. For example, Hiring Managers shared that during the candidate interview selection process, which often follows the dual-screening process, they are sometimes required to interview candidates in which they had no interest based on their job requirements and the candidate’s qualifications. The dual-screening process is a process in which submitted applications are evaluated first by the TA Analyst and then by the Hiring Manager.

According to TA Analysts, following their evaluation, they create a list that identifies which candidates have met (1) all minimum qualifications (MQs), and (2) the preferred qualifications (PQs). The Hiring Manager reviews the applications to provide concurrence with the TA Analyst. Some Hiring Managers expressed frustration that they were dependent on TA Analysts to provide them with physical applications and did not have access to a digital system in which to indicate their concurrence. In addition, increased oversight, in the form of interview question validation and EEO concurrence, is perceived as restricting their authority as Hiring Managers to ask the questions that would help them delve more deeply into a candidate’s qualifications for the position. Furthermore, the Compensation Analyst and Hiring Manager may differ on how to quantify and qualify a candidate’s past experience when deciding in which compensation quartile to place them. Simply put, there is a lack of clarity around who possesses final decision-making authority at each step in the process when the hiring process stakeholders – including TA Analysts, Compensation Analysts, Hiring Managers, and EEO, among others – disagree. Some Hiring Managers deem TA’s perceived influence on the hiring decision to be unfair because it is the Hiring Manager (and not TA) who must work with and manage the newly-hired candidate.

Recommendation 10: Clarify decision-making roles and responsibilities throughout the entire hiring process

At multiple points throughout Metro’s current hiring process, two key stakeholders may need to reconcile their disparate opinions, but getting to consensus is not easily resolved, lengthening the time-to-hire. To mitigate this, Metro should create and disseminate clear guidelines outlining which stakeholder has final decision-making authority at each step in the hiring process (and, by extension, which stakeholder assumes the risk for that decision). If simplified, these guidelines can be presented in paragraph or bullet form; for more complicated ownership structures, these guidelines can be presented in a RACI (Responsible, Accountable, Consulted, Informed) chart or similar tool.³⁶ A RACI chart helps stakeholders in the hiring process understand how they can delegate responsibilities, ultimately enabling participative, collaborative, and quicker decision making.³⁷ The principal issue related to Metro’s hiring process decision-making is not that it is fragmented (meaning, that the stakeholder who has final authority differs from step-to-step), but the decision-making is not explicitly defined. By clarifying each stakeholder’s roles and responsibilities, Metro can expect to see a decreased time-to-hire and more accountability from each stakeholder.

Recommendation 11: Grant Hiring Managers greater decision-making authority in screening

Currently, submitted applications are reviewed first by a TA Analyst, who prepares a list of candidates to provide to the Hiring Manager. This list includes all the potential candidates and indicates which candidates have: (1) met all minimum qualifications (MQs), (2) which preferred qualifications (PQs), if any, the candidates have met, and (3) which candidates the TA analyst believes should move forward in the hiring process. The Hiring Manager then reviews the supplied applications to provide concurrence with the TA Analyst. If the Hiring Manager does not concur, however, then both parties meet to reconcile their lists. The subsequent discussions around which candidates should proceed in the hiring process can be lengthy and raise the question of who ultimately has decision-making authority for this task. To expedite the current process and provide a singular point of decision-making, TA Analysts should screen applications and provide to the Hiring Manager the applications of all candidates who have met the MQs. (Accompanying these applications should be some high-level information about the candidates eliminated from consideration due to not meeting the MQs.) The Hiring Manager should then review the supplied applications, identify the applications that meet their PQs, and determine who should proceed to interviews. Those identified by the Hiring Manager should proceed to the next step in the hiring process without requiring additional concurrence from the TA Analyst because the Hiring Manager is ultimately responsible for fulfilling the duties of their department and must work with the selected candidate to do so.

Finding G: Change in Applicant Tracking System (ATS) presents opportunities and challenges

For 15 years, Metro’s TA has employed a home-grown Applicant Tracking System (ATS), aptly named, Metro Applicant Tracking System (MATS). In hopes of modernizing the capabilities MATS offers, Metro recently procured Oracle’s Talent Acquisition Cloud (OTAC), also known as Taleo, as its replacement. OTAC’s full implementation promises improved data collection and reporting along with overall digitization and transparency in the hiring processes. OTAC is consistently rated one of the top Applicant Tracking Systems used by *Fortune 500* companies.³⁸ OTAC’s functionality – including intuitive workflows, seamless

³⁶ “The RACI matrix is a responsibility-assignment chart that maps out every task, milestone or key decision involved in completing a project and assigns which roles are *Responsible* for each action item, which personnel are *Accountable*, and, where appropriate, who needs to be *Consulted* or *Informed*. The acronym RACI stands for the four roles that stakeholders might play in any project”; *The RACI matrix: Your blueprint for project success*, Bob Kantor, 2018

³⁷ *Twenty-Seven Ways to Recruit Faster*, HR Leadership Council, 2015

³⁸ *Workday’s ATS is the ‘Top Choice’ of the Fortune 500*, SHRM, 2019

integration with all major vendors, and end-to-end automation – makes it one of the best products on the market³⁹, as well as one of the most popular. A recent study of 476 of the Fortune 500 identified that Workday and OTAC were the top-two most used ATs. (See [Figure 9.](#)) OTAC’s popularity can be explained by its highly customizable, comprehensive and high functioning capabilities. Of specific value to Metro, is OTAC’s (1) ability to integrate with its Hiring Resource Information System (HRIS), (2) advanced applicant tracking and (3) reporting dashboard. Taken together, OTAC’s capabilities decrease the cost and risk of hiring to Metro and reduce TA’s workload.

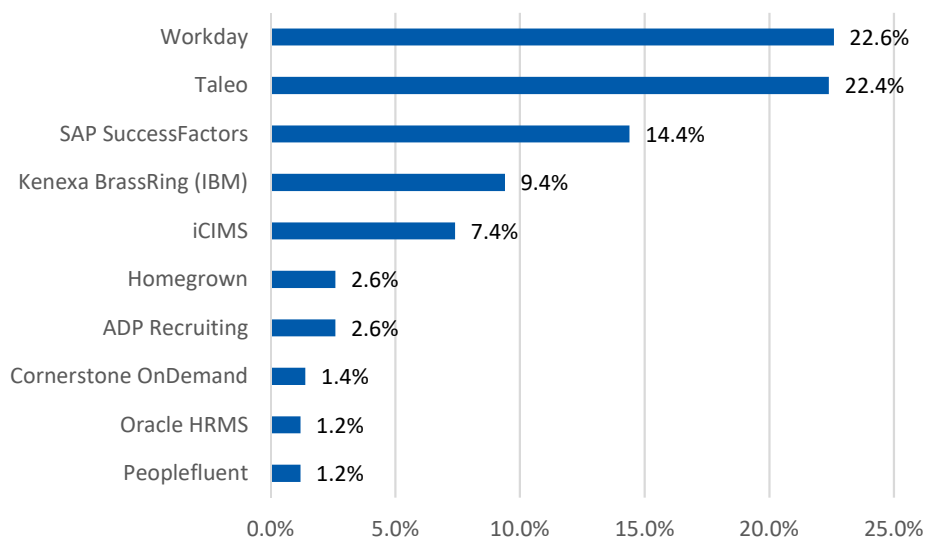


Figure 9: Top 10 Applicant Tracking Systems Used by Fortune 500 Companies

As noted, one such improvement is the ability to collect documentation digitally that will sync directly with Metro’s central HRIS database. Currently, new hires must complete multiple hard copy forms at orientation with information that a Metro staff person must manually enter into the HRIS database. With OTAC, those forms will be completed prior to arriving at Metro and integrated into HRIS. Another improvement will be the online scheduling capability offered by OTAC. Currently, TA Support Staff must work with interviewer and interviewee schedules to identify an interview time. OTAC will remove the need for human facilitation, providing increased capacity to TA Support Staff to address the needs of more candidates. Despite MATS’s limited capabilities and propensity for losing data, current internal users are familiar with this system and its customization to their recruitment processes, which has made it an accepted software by its users. Certain functions that were facilitated by MATS, such as automatically sorting candidates into Qualified Candidate Pools (QCPs) based on their interview scores, cannot be completed as easily by OTAC. This, perhaps, has contributed to the resistance OTAC’s roll out has faced. Users are slow to learn the new interface and have been opting for work arounds as opposed to using the OTAC facilitated process. Despite a slow transition, MATS is outdated and the functionality that OTAC offers will help improve multiple facets of the hiring process.

Recommendation 12: Ensure full adoption of the OTAC system coupled with adoption of an effective change management process

As TA continues the replacement of MATS by OTAC, Metro must ensure that the implementation is not only accomplished technologically, but also realized organizationally. The benefits that contemporary

³⁹ *Top 10 Applicant Tracking Systems (ATS) Software for 2020*, HR Technologist, 2019

technology can provide to an organization are both realistic and attainable, but only when the effort to implement the technology occurs concurrently, coupled with an effective change management process that does not cease once the new system has “gone live.” Unless users embrace and begin to feel comfortable with the new technology – that is, unless they understand the need for the change, are incentivized to change, are equipped to make the change, and are actively supported to continue their changed behavior until that behavior is standardized – the full benefits of the implementation will remain unrealized.

Research demonstrates, in fact, that most change projects (60-70%) fail.⁴⁰ For example, TA Analysts who may not be well-trained on the new OTAC system – or who may not, for other reasons, be inclined to adopt OTAC – may find manual workarounds to help quickly shepherd candidates through the hiring process. Users will also look for workarounds outside of the OTAC system if it cannot offer the same, or better, functionality as MATS, and thus OTAC must facilitate each step within Metro’s hiring process. Effective change management training with all internal hiring process stakeholders, along with the ability for OTAC to fully facilitate the hiring process, therefore, is critical to the success of Metro’s adoption of the new technology. Ensuring that full OTAC implementation is comprehensive and compelling to stakeholders is critical so that Metro’s investment in the new system will derive the intended benefits.

Finding H: Hiring process equity and efficiency are sometimes in conflict

Instilling any virtue into a process typically requires that the process be amended to include standardized steps and checks and balances, necessarily making the process somewhat inefficient. Understandably, then, Metro’s commitment to equity has resulted in hiring process inefficiencies. Not all of the inefficiencies in the hiring process result from embedding equity throughout the process – there are many ways in which the hiring process can be made more efficient *without* sacrificing equity – however it is important to acknowledge that, at times, the values of equity and efficiency are at odds with one another. Because Metro’s hiring process *is* equitable, some of the contributors in Metro’s time-to-hire are a result of the organization’s commitment to equity and fairness.

“The frustration comes from the length of time and bureaucracy.”

Finding I: Multiple approvals impede the path to posting

Two decisions made during the Hiring Plan Meeting may slow the hiring process before it even begins, requiring approval from stakeholders outside of Talent Acquisition and the hiring department. First, the decision to only post internally requires approval from EEO. Similarly, EEO and Compensation must approve the addition of any preferred qualifications to the job description. Preferred qualifications require approval from both EEO and Compensation to ensure they (1) do not unintentionally create adverse effects (e.g., deterring candidates of a certain demographic from applying), and (2) are appropriate for the current role and salary, respectively. While not significantly time-consuming, additional approvals necessarily pause the process until the approvals are received.

⁴⁰ *Change Management Needs to Change*, Harvard Business Review, 2013

Finding J: Recent changes to position descriptions limit Hiring Managers

A recently completed agency-wide initiative to update and streamline job descriptions, which received an award from Metro’s CEO, reduced the number of job descriptions by consolidating similar positions across departments. While this initiative has benefits, the new job descriptions have caused Hiring Managers frustration, because their inability to tailor their job descriptions to meet their specific needs coupled with overly generalized minimum qualifications leads unqualified candidates to apply, thereby increasing the time needed by the TA Analyst and Hiring Manager to screen the applications. Hiring Managers can still influence a position’s job description through the addition of preferred qualifications, but they are often inundated with applications meeting the minimum qualifications rather than the preferred qualifications.

“[Candidates] don’t know that buried in “Manager of Special Projects” is a “Developer” position. Then we don’t get anyone remotely qualified for the job applying. “

Recommendation 13: Expand Hiring Managers’ influence by allowing additional Minimum Qualifications to a position

The revamp of job descriptions offers both benefits and concerns. Of greatest concern to Hiring Managers is that the lack of specificity in job titles and minimum requirements have inadvertently encouraged candidates who are not qualified to apply. Casting a wide net is prudent in some cases, but it may have the unintentional consequence of increasing the cost of hiring for a position because staff have to screen more candidates; in other cases, therefore, it may be more prudent to discourage candidates who don’t fit the position than to “jam more candidates into the recruiting funnel.”⁴¹ Creating a smaller but better qualified pool will decrease cost, decrease risk (as each application also exposes Metro to legal risk as it has obligations to candidates), and decrease the burden of weeding out unqualified candidates. Building a more selective candidate pool can be accomplished by having Hiring Managers identify additional Minimum Qualifications for job descriptions. Further, lack of specificity in job descriptions cloud candidates with ambiguity. Indeed, 14% of candidates, on average, discontinue a hiring process because of the mismatch between the job description and the actual position the organization was trying to fill.⁴² Equipping candidates with better information on the requirements of a role will allow prospective candidates to self-select out of the candidate pool if they do not possess the requisite skillset, thus decreasing the number of unqualified candidates applying for a job and increasing retention throughout the entire hiring process, as candidates have a better understanding of what their role will require.

Finding K: Hiring process stakeholders are ambivalent about blind screening

Within the past two years, LA Metro instituted blind screening of applications into its hiring process in order to improve the equity of the hiring process by reducing bias. During interviews, Hiring Managers voiced frustration with the process of not being able to view all of a candidate’s information. They shared particular frustration about not being able to view the university from which the candidate graduated. All Hiring Managers acknowledged the theoretical benefits of blind screening, but many questioned its effectiveness, especially since the top candidates will still be interviewed in person; instead, some Hiring Managers pointed to the unintended consequences of blind screening, including eliminating a prospective candidate who may meet the department’s diversity hiring goals. These Hiring Managers also point to Metro’s other hiring process requirements (e.g., panel interviews, interview question approval, EEO concurrence) as sufficient checks-and-balances to ensure equity. In addition, some recent peer-reviewed research

⁴¹ *Your Approach to Hiring is All Wrong*, Harvard Business Review, 2019

⁴² *4 Moments that Fail in the Candidate Experience*, Gartner HR Leadership Council, 2019

questions the effectiveness of blind screening as a mechanism for increasing hiring diversity. Many credible, yet non-peer-reviewed, publications also acknowledge the limitations of blind screening.^{43 44} Lastly, redacting applications is a manual process that is unable to be done by MATS currently and may not be automated by OTAC in the future. It is unclear how much time the application redaction takes, but given the number of applications received by Metro and the organization's hiring goals, blind screening may contribute substantial time to the hiring process.

Recommendation 14: Reevaluate the use of blind screening in 12 months

Because blind screening is a relatively new trend, Metro should reevaluate its use of blind screening in one year. Over the course of this year, Metro should collect data to measure blind screening's effectiveness, as well as monitor the published research on the topic. Should Metro's experience and the broader academic literature affirm the effectiveness of blind screening, then Metro should continue its use. Should Metro find that blind screening is ineffective, or find that other checks and balances are adequate to protect the integrity of the process, then the organization should discontinue the practice and take solace in the fact that there are number of checks-and-balances already in place to promote fairness and equity.

Finding L: EEO's current role questioned by other stakeholders

Currently, Metro's EEO group takes an active role in Metro's hiring process. EEO is required, pursuant to Federal Transit Administration (FTA) guidelines, to be involved in a transit agency's hiring process, but conversations with Hiring Managers and TA Analysts alike have uncovered concerns with EEO's direct involvement, noting that, at times, EEO has unduly influenced and elongated the hiring process. EEO's participation occurs at various points in the hiring process, beginning with the Hiring Plan Meeting and ending with providing concurrence with the selected candidate for hire. For TA Analysts, gaining EEO concurrence is a time-consuming and burdensome activity that can further delay the time-to-hire, which has occasionally resulted in losing the selected candidate. According to an EEO representative, only rarely does EEO *not* concur with the proposed candidate; bringing into question at which point(s) EEO should be involved with the hiring process to bring value and comply with FTA guidelines.

Recommendation 15: Transition EEO role from active participant to advisor, auditor, and trainer

Currently, Metro's EEO group takes an active role in Metro's hiring process. EEO must approve: (1) the Hiring Manager's decision to post a job internally, (2) a recruitment's use of preferred qualifications, and (3) the final candidate selection by the Hiring Manager.

According to the Federal Transit Administration (FTA)⁴⁵, an active EEO role is required, but less clear are the specifics of how that role should be implemented. Conversations with TA and Hiring Managers have uncovered many concerns with EEO's direct involvement because it may directly impact the Hiring Managers' authority and lengthens the time-to-hire, incurring unnecessary costs and delays to Metro.⁴⁶

⁴³ *Our Blind Hiring Process is (probably) Still Biased. Here's How to Change That*, Fast Company, 2019

⁴⁴ *Can Blind Hiring Improve Workplace Diversity?*, SHRM, 2018

⁴⁵ FTA Circular 4704.1A, Section 2.2.3 *Designation of Personnel Responsibility* outlines the EEO Officer's Program responsibilities, which includes "Concurring in the hiring and promotion process." It appears that Metro possesses a strict interpretation of "concurring," such that EEO has decision-making authority in each hiring process; a looser interpretation can remove EEO from being involved in each individual hire, while still satisfying the FTA Circular.

⁴⁶ The "costs" of EEO's involvement are additional opportunity costs (where EEO is spending time in the hiring process and could be using that time for other activities).

Metro should transition EEO's role in the hiring process from active participant to advisor, auditor, and trainer, especially as the FTA Circular outlines EEO responsibilities as: (1) In conjunction with human resources, periodically reviewing employment practices policies, (2) "Investigating complaints of EEO discrimination," and (3) "Providing EEO training for employees and managers.", roles that are directly aligned with the FTA requirements rather than as an active participant.⁴⁷ In this new role, Metro's Executive Leadership would continue to reinforce its policy of equity in hiring, and EEO would enforce it through periodically auditing the hiring process to ensure that it is being completed equitably. (EEO's ability to audit the process will be enhanced when the new OTAC system is fully implemented, with its capability to enable observation of the process in real time. With this new functionality, EEO could periodically observe and monitor the process for any recruitment and, if necessary, get involved if it identifies a concern.) Should EEO find violations, EEO would implement corrective activities and training, including serving as an active participant in the identified department's recruitments until the issue has been resolved. In this new role, EEO would also be expected to train TA and Hiring Departments stakeholders annually or biannually on EEO best practices. By moving to this new set of responsibilities, Metro can still satisfy FTA guidelines while expediting the hiring process and empowering TA and Hiring Managers.

Finding M: Information requests made of candidates can extend the time-to-hire

As part of Employment Certification, candidates may be asked to supply proof of education (e.g., degrees, certificates, transcripts) and confirm that the references provided their initial application can be contacted (and, if not, TA Analysts request updated references). The information gathered during this step is vital to validating the education and experience that (1) qualified the candidate for the position, and (2) will inform the compensation determination process. Contacting candidates and waiting for their response can be time consuming and has been identified by TA as a potential bottleneck. And while references are important for ensuring candidate qualifications, tardy or unresponsive references will also delay the hiring process.

Recommendation 16: Utilize self-service portal for candidates to provide evidence of education and references

Obtaining the detailed information needed for employment certification and reference checks can be removed as a bottleneck in the hiring process by requesting the required information earlier in the process and empowering candidates to upload the information using a self-service portal. TA will only need to communicate with the candidate if further information is required, or additional questions remain. By utilizing a self-service portal and informing candidates at the beginning of the process to be ready to provide the needed information, TA can begin conducting reference checks and submitting the Salary Request Form to Compensation earlier in the process, *immediately* after a candidate is selected by the panel.

Finding N: The Hiring Plan Meeting is a critical step in the hiring process

⁴⁷ FTA Circular 4704.1A, Section 2.2.3 *Designation of Personnel Responsibility*, which, as mentioned previously, outlines the EEO Officer's Program responsibilities, includes (1) "In conjunction with human resources, periodically reviewing employment practices policies (e.g., hiring, promotions, training), complaint policies, reasonable accommodation policies," (2) "Investigating complaints of EEO discrimination," and (3) "Providing EEO training for employees and managers."

The Hiring Plan Meeting was cited by Hiring Managers and TA Analysts alike as one of the most important steps in the hiring process and, therefore, should be continued. The Hiring Plan Meeting serves as a place where the key parties in the hiring process share their expectations of the recruitment itself and for one another. Specifically, the following topics are discussed at this meeting: the job description, preferred qualifications, the posting period, advertising plan, outreach responsibilities, and when to schedule time with EEO or Compensation (if either representative did not attend the meeting but needed to be present). The Hiring Plan Meeting leads to greater effectiveness and efficiency in the hiring process and serves the important purpose of relationship building between Hiring Manager and TA Analyst who may face disagreements as the hiring process progresses. One Hiring Manager reported that this meeting did not take place for most of their requisitions; while this should change so that all requisitions have a Hiring Plan Meeting, it does not appear that this lack of a meeting was a common experience across other departments.

“The TA Analyst will sit down themselves and walk through the entire process beginning to the end, so there are no surprises.”

TASK 3: INTERVIEW NEW HIRES

Task Overview

In Task 3, the Project Team conducted three information-gathering activities – interviews, focus groups, and surveys – in order to get new hires’ perspectives on the hiring process, thereby providing the candidate experience.

Methodology

To determine which individuals would be selected to represent the candidate’s perspective in Task 3, the Project Team obtained a list of all non-contract, full-time employees who were either external hires into Metro, or internal promotions, in FY2019. These 315 employees – who accounted for 10.8% of the ~2,900 total employees hired during that same time period – consisted of 18 individuals who were hired into Metro’s Talent Acquisition group and 22 individuals who, at the time of analysis, were no longer employed at Metro. Both of these sets of employees were removed from the analysis so that they would not be randomly-selected to participate in the information-gathering activities conducted by the Project Team.⁴⁸ The remaining 276⁴⁹ employees served as the sample from which the Project Team’s three avenues of primary research about *candidates* – not TA staff or Hiring Managers – came.

INTERVIEWS	FOCUS GROUPS	SURVEY
<ul style="list-style-type: none"> ❖ 58 interviews conducted ❖ Interviewees included Hiring Managers, candidates, and TA ❖ One-on-one ❖ 30-60 minutes in length 	<ul style="list-style-type: none"> ❖ Three focus groups with externally hired employees ❖ 24 total employee perspectives captured ❖ 90 minutes in length 	<ul style="list-style-type: none"> ❖ 121 respondents, consisting of internal <i>and</i> external hires ❖ Quantitative and qualitative questions included ❖ Distributed online

Interviews

The one-on-one interviews, which served as the initial tool for information-gathering, were intended to obtain a deep and broad understanding of Metro’s hiring process in a fairly short amount of time. These were context-setting conversations which provided a lens through which the subsequent information-gathering activities (e.g., focus groups, survey, follow-up interviews, data requests) were viewed.

Over the course of two months, one-on-one interviews were conducted with 33 employees who were candidates for hire in FY2019. Nineteen (21.3%) of the 89 individuals who were externally hired in FY2019 were invited to attend a one-on-one interview with the Project team⁵⁰; of these 19, 15 (78.9%) participated in an interview. Three additional interviews were conducted with employees who were externally hired in FY2020, bringing the number of externally hired employees interviewed to 18.⁵¹ (See [Figure 10.](#)) Twenty-

⁴⁸ Employees hired into the Talent Acquisition group were *excluded* from potentially being selected to provide information about their experience as a candidate to remove any potential conflict of interest, considering they were also Talent Acquisition staff during the study’s time frame.

⁴⁹ The number of employees remaining in the dataset – after removing TA staff (18) and employees no longer at Metro (22) – is 276 instead of 275 because one of the employees who left Metro worked in TA.

⁵⁰ These 19 individuals were not chosen via true random selection because the Project Team sought to parallel the interviewees with the number of hires made by each department in FY2019. The 19 individuals, therefore, were selected based on which departments they represented. For example, if Department A accounted for 25% of the external hires in FY2019, then ~25% of the individuals invited to interview were from Department A.

⁵¹ These three individuals were not invited to participate in an interview but heard about the study and proactively volunteered to be interviewed.

six (13.9%) of the 187 individuals who were internally promoted in FY2019 were invited to attend a one-on-one interview with the Project team; of these 26, 15 (57.7%) participated in an interview.

Number of Interviewees	
Externally-hired employees	18
Internally-promoted employees	15
Total	33

Figure 10: Survey Data Time-to-Hire by Department

These interviews included conversations with employees who were candidates for lower-level roles, as well as candidates for senior leadership roles. These interviews also gathered perspectives from all departments who made non-contract hires in FY2019.

Although a broad and standardized interview guide was prepared for the one-on-one interviews (see **Appendix 3**)⁵², the questions found therein are not an exhaustive list of the questions asked in the interviews. Much of the information gathered was not in direct response to questions prescribed by the interview guide, but were responses to follow-up questions asked based on the employee’s specific experience.

Focus Groups

Like the interviews, the intent of the focus groups was to obtain the perspective of Metro’s candidates. Focus groups not only provided an avenue for digging deeper into the positive and negative items outlined in the one-on-one interviews, but also provided an opportunity for identifying yet-uncovered strengths and weaknesses of the hiring process.

Over the course of two days, three focus groups were conducted with 24 employees who were external candidates for hire in FY2019. Thirty-two (36.0%) of the 89 individuals who were externally hired in FY2019 were invited to participate in a focus group with the Project Team; of these 32, 24 (75.0%) participated in a focus group.⁵³

Like the interview guides for the one-on-one conversations, a question guide (see **Appendix 3**) was prepared and used to ensure consistency between each of the three focus groups. Similarly, the questions found in this question guide are not an exhaustive list of the questions asked in the focus groups, as much of the information gathered was based on follow-up questions and requests for clarification.

Survey

Like the interviews and focus groups, the survey was intended to gain the candidate’s perspective; unlike the focus group, however, the survey was designed to capture *quantitative* insights. All 276 employees in the sample were requested to complete a survey. Over the course of 11 days, 121 surveys (43.8%) were submitted via the online survey tool. Of these 121, 86 (71.1%) were submitted by employees who were internally-promoted employees and 35 (28.9%) were submitted by externally-hired employees. (See **Figure 11.**)

⁵² This interview guide was utilized in interviews with externally hired employees; a similar, though not identical, interview guide was utilized for internally promoted employees.

⁵³ The interview invitees were removed from the sample from which the focus group invitees were selected, thereby preventing any individuals from being selected for both an interview *and* focus group.

Department	Internally-promoted Employees	Externally-hired Employees	Total
Board of Directors	1	2	3
Chief Executive Office	8	5	13
Communications	8	5	13
Congestion Reduction	3	1	4
Finance and Budget	7	5	12
Information Technology	4	2	6
Operations	17	2	19
Planning and Development	11	7	18
Program Management	22	4	26
Vendor/Contract Management	5	2	7
Total	86	35	121

Figure 11: Survey Respondents by Department

The questions asked of the survey respondents are presented in **Appendix 3**.

Findings and Recommendations

Finding O: Lengthy gaps of time between the hiring process steps leave Hiring Managers and candidates “in limbo”

Many candidates communicated that they moved through each individual step of the hiring process rather quickly, attributing much of their overall time-to-hire to the gaps between the individual steps. These lengthy gaps, compounded by an absence of communication regarding next steps, left most candidates reporting feeling “in limbo” during their recruitment.

According to both qualitative testimonies and quantitative data collected, such gaps could be many months long, not including the time a candidate is in a QCP. For example, employees who were hired externally reported via survey that the time between submitting an application and being invited

“There are these periods of times when you just don’t know what is going on.”

by Metro for the next step in the process was 38 workdays (or about seven and a half weeks); internal candidates fared better, but not by much (26 workdays). This may be because applicants would not be contacted about the next step in the process until the recruitment period is closed and all applicants are screened. For candidates of positions that require a test, a similar gap occurs between completing that test and being invited for an appraisal interview; external candidates estimated that 35 days (or seven weeks) elapsed during this time, while internal candidates reported a gap of 19 days (almost four weeks). In addition, because many candidates were not aware that these lengthy gaps are common in Metro’s hiring process, they often resigned themselves to the reality that they had not been selected for the position, only to be caught off guard when they were eventually contacted and invited to continue to the next step in the hiring process. Consequently, candidates who are unaware of their next step in the hiring process, or after learning about that step, often became disillusioned with the hiring process and decided to seek employment elsewhere. Moreover, candidates reported feeling undervalued by the lack of proactive communication throughout the hiring process.

“I had accepted a position with another agency during [Metro’s] hiring process thinking that I would not be getting a position at Metro because it had been months since I had heard back from anyone. I ended up accepting a position at the other agency for 2 months because I thought Metro was not interested in me as a candidate. I would not have accepted the other position if the process at Metro went faster. This caused undue hardship for me as I had relocated closer to the other employer which was not close to Metro’s offices.”

Recommendation 17: Provide stakeholders with the ability to receive live application status updates

Many organizations struggle to keep candidates abreast of their status in the hiring process, which, consequently, makes candidates feel that the organization does not prioritize them. Indeed, 69% of new hires report dissatisfaction with the way their organization keeps them apprised on their hiring status throughout the process.⁵⁴ The importance of process transparency is emphasized by the importance of the candidate experience. Of talent professionals surveyed by LinkedIn, 94% agreed that employee experience will be very important to the future of recruiting and HR.⁵⁵ Employee experience can be improved by enabling process transparency. To do so, Metro must set realistic expectations about process timelines from the time of application submission to be able to manage candidates’ expectations. TA Analysts should provide clear and feasible timelines that keep Metro accountable. In addition to expectation-setting, Metro must also proactively communicate with candidates when their experience is likely to deviate from the previously communicated plan. Candidates crave updates, even if that update does not contain the news they were hoping to hear. Status updates ensure candidates that their applications are still in consideration and have not been lost in the shuffle.

Metro should also consider empowering candidates with self-service tools to track their application status. Much like tracking package delivery, candidates want to know where they are at every stage in the process. Providing them with a digital platform to check their progress empowers candidates, reduces their anxiety with the process and the frequency with which they personally contact or email TA Analyst, decreasing the likelihood they will become frustrated and disillusioned with the organization.⁵⁶ (This functionality is likely a part of OTAC; assuming so, it should be set up quickly.)

Finding P: Promotion process mirrors hiring process

Currently, employees at LA Metro obtain “promotions,” or positions at a higher level than their current position, by applying to an open job posting just as an external candidate would. Positions posted on Metro’s job site are indicated as “internal” (a position exclusively for applications from Metro employees) or “external” (a position accepting application from candidates both internal and external to Metro). The similarities between the new hire and promotion processes lead many to remark that there “is no promotion process at

“When you have people and you want to retain talent, you want to do things quickly – to say, ‘We want you, we validate you and this [promotion] is how we are showing you’ – but often that is not what transpires.”

⁵⁴ *4 Moments that Fail in the Candidate Experience*, Gartner HR Leadership Council, 2019

⁵⁵ *These 3 Talent Trends for 2020 Focus on Empathy*, SHRM, 2020

⁵⁶ *4 Moments that Fail in the Candidate Experience*, Gartner HR Leadership Council, 2019

Metro.” Employees commented that, even when “promoted,” it does not feel like a reward because you have to apply for it like an external candidate. Employees also noted that, at times, the steps in the promotion process seem ceremonial, as they are required to interview with individuals who they have worked with for many years. Additionally, Hiring Managers have found that the current “promotion” process incentivizes employees to go through the hiring process for a role in other departments until they receive a better compensation offer that they can leverage in their current role, potentially resulting in bidding wars between departments to receive or keep an employee. Overall, the current process for obtaining a promotion at Metro leaves employees feeling undervalued and frustrated.

Recommendation 18: Communicate to Metro employees why it lacks a promotion process

Pursuant to Federal Transit Administration (FTA) guidelines, Metro managers are unable to place an employee in a more senior position with additional pay without having the employee demonstrate themselves to be the best candidate for the position by undergoing a fair, comprehensive, and competitive hiring process. Therefore, the “promotion” process is, in actuality, the same process as the one utilized to bring any external candidates into the organization. (While the front-end of the process – namely, applying, testing, and interviewing – may be similar, the back-end of the process – that is, the parts of the process that take place after candidate selection – does indeed differ, as internal candidates do not need to complete the same paperwork as new hires, for example.) Though employees are frustrated by this reality, many are unaware that it stems from a non-negotiable rule that accompanies the funding Metro receives from the FTA. To mitigate the discontentment, Metro should clearly communicate why, pursuant to this Federal mandate, it is unable to provide private-sector style promotions to their internal staff. This task may be completed in a variety of ways, including placing this information on every job posting and by sharing this information at Metro’s twice-per-month onboarding class for new hires.

Finding Q: Various factors contribute to a candidate’s decision to accept or decline an offer of employment from Metro

The interviews conducted with employees who were hired in FY2019 underscored a few key factors as being most important when deciding whether to accept a job at Metro. Because this data was qualitatively collected, however, a question was included in the survey to provide quantitative support for these findings; 121 internally-promoted and externally-hired employees were given a list of nine answer choices and asked “Please rate the following factors in terms of how heavily they weighed in your decision to accept a role at LA Metro (with 1 being your most important factor).” (See **Appendix 3** for more information.) As illustrated in **Figure 12**, among the respondents, 32% selected “Salary” as the factor weighted first; the second and third most frequently cited “first factor” was “Opportunity for growth” and “Job duties” at 21% and 12%, respectively. Of the factors identified as the second-most heavily weighted factor in their decision, 25% of respondents cited “Job duties,” followed by 21% who cited “Benefits,” and 16% who cited “Opportunity for growth.” Of the third factor considered when accepting a role at Metro, 20% of respondents cited “Salary,” 16% cited “Work/life balance,” 15% cited “Benefits,” 14% cited “Job duties,” and 13% cited “Opportunity for growth.” In short, “Salary,” “Job duties,” “Opportunity for growth,” and “Benefits” were candidates’ foremost decision-making criteria. Other factors, such as “Stability of employment,” “Interest in transportation industry,” and “Positive reputation of LA Metro work” were also cited as contributing factors, but at a lower level of importance. Although these results indicate that salary *is* important to candidates, it is by no means the only significant factor at play in a candidate’s decision to work at Metro.

Factor	Which factor was weighed...		
	...first?	...second?	...third?
Salary	31.82%	10.91%	20.00%
Benefits	7.21%	20.72%	15.32%
Job duties	11.50%	24.78%	14.16%
Opportunity for growth	20.54%	16.07%	13.39%
Work/life balance	5.36%	7.14%	16.07%
Stability of employment	10.62%	9.73%	8.85%
Interest in the transportation industry	8.85%	7.08%	10.62%
Positive reputation of LA Metro work	4.39%	3.51%	3.51%
Other	8.33%	2.38%	1.19%

Figure 12: Survey Data Criteria for Accepting a Job with Metro

The Project Team also conducted email outreach to candidates who withdrew from Metro’s hiring process or declined a job offer from Metro to better understand why they made their decision. Ten individuals shared insight into why they withdrew or declined offers; of these 10, seven articulated that salary was the main reason. The second-most common reply was that the process took long enough that the candidate was offered and accepted a job elsewhere.

Finding R: TA Analysts identified as helpful and professional despite challenges in turnover

“The [TA Analyst] was wonderful; very engaged, very communicative, I appreciate that.”

Candidates describe that, once contacted, the TA Analyst assigned to their recruitment is typically helpful and professional. In addition, both candidates and Hiring Managers cited TA Analysts as being responsive, even if they are unable to provide a specific update or answer the question the candidate asked. New hires almost always

reported knowing who to contact with questions during their hiring process and shared that they were confident that their contact would respond to inquiries in a timely manner. Although candidates and Hiring Managers alike provided positive feedback for the professionalism and helpfulness of TA Analysts, Hiring Managers also acknowledged that high turnover among analysts, sometimes while mid-search, was frustrating because of the disjointed transition (and loss of institutional knowledge) between the old and new analysts.

Finding S: Metro’s application portal lacks key functionality

Candidates find the MATS system intuitive, citing their ease in uploading a resume and completing the application questions.⁵⁷ Despite the intuitive nature, candidates reported frustrations with the system’s capabilities. One commonly reported frustration was the word limits for the short-answer application questions, as candidates do not feel like they are adequately able to respond to the prompt. Compounding this frustration is the fact that the instructions within the application portal state that resumes will *not* be reviewed as part of the application screening, increasing a candidate’s need to more-robustly complete the short-answer application questions. Further, a recently enacted blind screening policy limits the information provided to Hiring Managers, giving application questions even greater weight. For both of these reasons, a word limit on application questions seems misaligned with the importance placed on the application questions in the hiring process. Additionally, candidates cite frustration with the application’s inability to a “save” function, thereby requiring candidates to complete their application in one sitting, lest

⁵⁷ MATS, like any other Applicant Tracking System, provides front-end access to the candidates (via the Metro Careers webpage) and back-end access to the recruiters.

they lose all previously entered information. The intuitive nature of the MATS Careers webpage interface, it appears, is undermined by its antiquated functionality, an issue that will be addressed with the roll out of OTAC. Although the current system does not contribute to time-to-hire length, it does contribute to a less desirable candidate experience, which may deter some candidates from completing the application process.

Recommendation 19: Ensure OTAC’s application portal meets candidates’ needs

The implementation of OTAC presents an opportunity to make updates to the applicant portal that better meet candidate’s needs. Specific complaints – such as word limits, the inability to save the application and return to it at a later time, and the inability to format the text in answer boxes – were regularly heard in interviews with the candidates and can be solved with the new OTAC system. OTAC’s enhanced capabilities should allow candidates to save their application mid-way through and return at a later time, format the text in answer boxes, have more space to respond to short answer questions, and have full functionality from a mobile device. The ability to apply on a mobile device is of particular importance as a recent study indicated that 31% of candidates completed at least some of their most recent job applications on a mobile device, with most of these candidates belonging to the younger job seekers.⁵⁸ Given the propensity of candidates to abandon online applications,⁵⁹ making the experience as user friendly as possible is important for maintaining a healthy applicant pipeline.

Finding T: There is a lack of communication after application submission

For most candidates, the longest communication gap in the hiring process was between application submission and the first time they were contacted by a TA Analyst inviting them to the next step in the process.⁶⁰ According to self-reported time-to-hire data from employees at Metro, the average time between application submission and contact from a TA Analyst was 38 workdays for external candidates and 26 workdays for internal candidates, although the range varied with some candidates contacted within the same week and others who waited five months. While some causes for this delay have been identified, none seem adequate to fully account for the gaps, some of which are as long as nine months.

Two factors that potentially contribute to delays in candidate contact include: extending the requisition posting period in hopes of attracting more or different candidates, and delays in the dual-screening process. For the former, while applications are considered on a rolling basis, candidates may not be contacted until the posting closes or until a certain threshold of applicants have come in. As a result, an application submitted at the beginning of a posting period

“Half the time there is disagreement with who [the TA Analyst] has qualified and not qualified. Probably does not go our way the majority of the time.”

may be contacted for an interview at the same time as an application submitted at the end of the process. Delays can also result from disagreements between the TA Analyst and Hiring Manager in the screening process. During this process, the TA Analyst provides the Hiring Manager with a list of all the potential candidates. This list indicates, according to the TA Analyst, which candidates have: (1) met all minimum qualifications (MQs), (2) the preferred qualifications (PQs), and (3) the qualifications to move forward in

⁵⁸ *The Benefits of Mobile Recruiting*, Gartner HR Leadership Council, 2020

⁵⁹ A study by CareerBuilder found that 60% of job seekers quit in the middle of filling out online job applications because of their length or complexity. (*Study: Most Job Seekers Abandon Online Job Applications*, SHRM, 2016)

⁶⁰ A candidate’s first communication from Metro after submitting their application is an automated email acknowledging Metro’s receipt of the application, however candidates reported a substantial gap of time prior to being contacted by a TA Analyst to invite them to the next step in the process.

the hiring process. The Hiring Manager reviews the applications to provide concurrence with the TA Analyst. If the Hiring Manager does not concur, however, then both parties meet to reconcile their lists. This reconciliation process can be quite lengthy, time-consuming, and is a significant contributor to frustration between the two parties. This is because the threshold of PQs required to move forward in the hiring process is dependent on the candidate pool for that search. A Hiring Manager, given a candidate pool with many strong applicants, may decide to only interview candidates who have met all PQs, while a Hiring Manager, given a weaker candidate pool, may decide to interview candidates who only meet one PQ. Further, delays can occur when neither party is timely in completing their screening. Consequently, candidates reported that, due to the delay with no communication between application submission and first contact, they actively looked for other jobs, as oftentimes they assumed they were not selected to participate in the next step of Metro’s hiring process. This insight was confirmed by a recent nationwide study on hiring “decision making time”, defined as the time from the first day of interviewing to the day an offer was extended. The study found that, on average, from 2010 to 2018 decision making time increased from 18 to 33 days, while the offer acceptance rate decreased by 16%.⁶¹

Recommendation 20: Update auto-generated communications to applicants after application submission to improve hiring process expectations

The lack of clarity following an application submission can be mitigated by including additional information in the auto-generated application confirmation email. Examples of this additional information might include: the steps in the upcoming hiring process, an estimated timeline for each step, what information will be asked of the candidate at each step of the hiring process, an encouragement to begin collecting information needed in future steps, and a link to Metro’s hiring portal to which a candidate can refer. Adding additional information to this first communication can provide candidates with peace-of-mind, timeline expectations, and time to start preparing the materials that will be asked of them later in the process, which will decrease overall time-to-hire and improve the candidate experience. For candidates who are not selected to proceed in the hiring process, the additional information will illustrate Metro’s preparedness. (The hiring process steps and relevant information could also be listed on the recruitment website.) For candidates who are selected to proceed in the hiring process, the information provided in this initial email will provide them with a hiring blueprint that can be used throughout their recruitment. Additionally, sharing more information will (1) help decrease individual candidate outreach to TA; and (2) hold TA stakeholders accountable to the timeline originally communicated to candidates.

Finding U: Candidates are given flexibility in scheduling their test

Candidates who were required to take a pre-employment test acknowledged that Metro was often flexible to accommodate their availability. As mentioned previously, Metro permitted out-of-state candidates flexibility as to *where* to take their tests (by allowing them to test remotely), but Metro was also willing to allow in-state candidates some choice as to *when* to take their tests. Candidates noted that they appreciated Metro’s effort, improving the candidate experience.

Finding V: Increased interview standardization limits authentic conversation and increases time-to-hire

“The process did not facilitate any real conversation about me as a candidate.”

Over the past few years, Metro has taken steps to standardize the hiring process, which includes the requirement for pre-approved interview questions. Hiring Managers must draft and submit their interview questions to their TA Analyst for approval prior to the appraisal interview. Interview panelists

⁶¹ *Redefining the Role of the Hiring Manager in the Digital Era*, Gartner HR Leadership Council, 2019

must also provide more thorough evidence supporting the interview scores that they give to each candidate. Because of this requirement, interviewers now take more detailed interview notes. An unintended consequence of this change is the depersonalization of the interviews. Standardized questions, coupled with the need for interviewers to take thorough notes, limit the ability to establish authentic connections between candidate and interviewer. In turn, both candidates and Hiring Managers reported feeling disappointed by the impersonal nature of the interview. Although Hiring Managers understand that the panel interview structure is an effective tactic for limiting bias in the hiring process, they also voiced frustration at the time it takes to assemble a panel of interested interviewers who meet the panel requirements. Furthermore, some Hiring Managers shared that they are in high demand for other people's panels because they are one of the few people in the department who can help satisfy the gender/ethnic diversity criterion.

“When I was invited to interview...in 2019, I was really excited as I [heard] great things about [Metro]. Unfortunately, the interview process was somewhat robotic...There is nothing more disappointing than having someone ask you a long list of questions without having your answers explored – I might as well [have] bypassed the interview and took a test – that’s how impersonal my interview was with your panel. As a candidate, I want to work for an organization who shows interest in their employee or future employee in my case.”

Recommendation 21: Institute a combination of standardized and non-standardized interview questions

Combining standardized processes and tools with local customization is identified by companies across the country as a needed approach for effective hiring.⁶² Currently, Metro’s interview questions are standardized to promote fairness. This is important and should be continued, but not to the point of having neither the interviewer nor the interviewee feel that they were able to be sufficiently acquainted with the other. As such, Metro should adjust their interview process to utilize a combination of standardized and non-standardized interview questions to allow the experience to be more fruitful to Metro and the candidate. By doing this, Metro Hiring Managers will gather better information about the candidates, which will enhance their decision-making and increase the effectiveness of the hiring process. Should Metro begin using non-standardized questions in interviews, Metro should establish a training for Hiring Managers to ensure that the interviews continue to be fair, equitable, and do not violate any employment law.

Finding W: Candidates are unclear as to what their placement in the QCP means

While the QCP *does* keep candidates in the hiring pipeline, some candidates reported being unaware that they were even in the QCP, with many others sharing that they did not understand the implications of being placed in a QCP, even though they received an automated email notifying them that they were placed in a QCP. This, in part, is due to the information included in the automated QCP notification, which informs a candidate of their placement in the QCP but does not explain what a QCP is or the implications of being in one. In some instances, a candidate hired from the QCP was unaware that they had not been selected for the initial vacancy to which they applied; they merely assumed that the hiring process took a long time. Like the gap between application submission and invitation to a test or interview, this is one of the lengthiest steps in Metro’s hiring process and, as a result, is when many candidates look to apply for other jobs, assuming their current pursuit ended unsuccessfully. To a lesser extent, Hiring Managers also reported

⁶² *Transforming the HR Function of HR Operational Efficiency*, Gartner HR Leadership Council, 2014

confusion around the QCP. Specifically, some did not understand the level of access they had to candidates in the QCP, the required steps in accessing QCP candidates, or the current state of a QCP (e.g., number of candidates, how long those candidates had been in the QCP).

Recommendation 22: Update initial communication to candidates placed on QCP

All candidates who meet or exceed the interview threshold score are placed in the QCP for the job for which they applied, where they can remain for up to 18 months. Utilizing a candidate pool is a smart, proactive approach to recruitment that keeps strong candidates in Metro’s pipeline for future openings. Ensuring that candidates understand their placement in the QCP, therefore, is vital to its underlying success. Providing a more explicit initial communication to candidates placed in a QCP can reduce confusion and provide candidates with an increased understanding of the potential implications of a QCP and a better candidate experience. Clearer communications will also reduce one-off candidate calls to TA in search of answers. A self-service online portal, powered by OTAC, could also be employed to provide candidates with additional information about their place in the QCP.

Recommendation 23: Send periodic automated emails to candidates in QCP to keep them engaged and aware of opportunities for which they may be considered


Candidates in a QCP will only hear from Metro if they are: (1) progressing in the hiring process for the position to which they applied, (2) being considered for another requisition within to the 18 months since entering the QCP, or (3) being removed due to the expiration of their QCP. To keep candidates engaged, Metro should send periodic emails to candidates on the QCP utilizing the functionality of the new OTAC system. Maintaining contact with members in a candidate pool fosters relationships, builds trust and keeps them “warm” for potential future opportunities by letting them know that Metro has not forgotten about them. Communication could also be leveraged to direct them to other employment opportunities at Metro or to obtain feedback through candidate surveys. One candidate, who declined an offer from Metro in FY2019 because he recently accepted an opportunity elsewhere, asked for this overtly, saying that, “Perhaps a monthly email letting me know I was still in consideration for a job would have helped.” Periodic emails to candidates in a QCP are a low-effort, high-impact approach to improve the candidate experience.

Finding X: Time-to-hire benefits are often realized following QCP

The benefits of a QCP on the overall time-to-hire are often realized once a candidate is identified from the QCP for an open vacancy. Employees who were hired from the QCP explained that, once contacted for the

“Because they are so generic and established, the QCP lists are always being replenished with people on those titles.”

next step in the hiring process, the process moves expeditiously regardless of whether their next step was a department interview or a tentative offer. That said, the candidates can remain in the QCP for as little as one week to as long as 18 months; for those on the latter end of this timeframe, candidates admittedly became frustrated with the uncertainty and elected to take a position elsewhere.



Candidate spotlight: Jane Doe, External New Hire

Jane first applied to LA Metro in December. Six weeks later, she was emailed by a TA Analyst to schedule a test. Following the completion of the test, Jane did not hear from Metro until four weeks had passed. When she was contacted, she was informed that she would need to take another test, which she did. After the second test, Jane did not hear from Metro for two months. At the beginning of May, a TA Analyst scheduled Jane for an interview. Following her interview, Jane heard back from Metro almost two months later, at the end of July, when she received a conditional offer and was scheduled to come to Metro to complete pre-employment processing. Her original offer was less than she expected. To counter, she provided more information about her years of relevant experience; Metro then increased her offer. Metro's final offer came in the second week of August. She started at LA Metro two weeks later, nine months after applying.

Candidate spotlight: John Doe, External New Hire:

John applied for a position with LA Metro in the second week of April. Five months later, he received a call from a TA Analyst inviting him to take a written test the following week. Two weeks after completing the test, the TA Analyst called again. This time the Analyst informed John that he had passed the test and invited him to an appraisal interview, which was scheduled for the following week. A week after the interview, he was invited for a second interview, to be held the following week. Two weeks after the second interview, the TA Analyst called to congratulate John on receiving the job, and requested work references and copies of any certificates, licenses, or degrees. At that time, the TA Analyst informed John he would be out of the office for two weeks and provided the information of another Analyst who would step in while he was out. John did not hear anything from LA Metro for a month after that call. Unsure as to why he had not heard anything, John reached out to both the original TA Analyst and his surrogate during the now-complete vacation. On that call, John was told he was in fact moving forward in the process, but that Metro needed to check if the department was racially diverse. Two weeks later, he received an official offer. The initial offer seemed low to John, so he reiterated his experience and certifications in his field. The original offer was increased by \$1,700. John had been unaware of the weight his past experience would have on his salary offer. Following some back-and-forth regarding compensation, John was scheduled to start the third week of February, nine months after his original application submission.

TASK 4: EVALUATE COMPENSATION DETERMINATION PROCESS

Task Overview

In Task 4, the Project Team evaluated Metro’s process for determining compensation, the timeliness of that process, and how approvals are made.

Methodology

The Project Team evaluated Metro’s compensation determination process using the same methodologies used to evaluate the other steps in the hiring process, namely interviews, focus groups, and surveys. These three methods were utilized with Compensation staff, Hiring Managers, and new hires. More information on these information-gathering efforts can be found in the “Methodology” sub-sections of Task 2 and Task 3 above.

Findings and Recommendations

Finding Y: Misalignment between the information gathered in the application and the information needed during compensation process extends time-to-hire

Survey responses from selected candidates indicated that the compensation determination process takes 21 workdays (or four weeks) for external candidates and 25 workdays (or five weeks) for internal candidates. One contributor to this is the additional information gathering that takes place throughout this process. Currently, the application for employment at Metro requests a candidate’s previous 10 years of professional experience. These most recent 10 years are reviewed by the TA Analyst and Hiring Manager to conduct the initial screening of a candidate and determine whether the candidate will be invited to the next step in the process (i.e., test or appraisal interview); the compensation determination process, however, requires review of *all* of a candidate’s professional experience. For candidates who have worked for more than 10 years, the TA Analyst – and, at times, the Compensation Analyst – must reach out to the candidate to request any information about professional experiences *more* than 10 years ago. Requesting this additional information adds time to an already-laborious hiring process.

Recommendation 24: Request complete employment history earlier in the process

The mismatch between (1) the information that Compensation receives about a candidate’s professional experience (from the candidate’s initial application), and (2) the professional experience information that Compensation needs to calculate salary, creates the need to acquire any unaccounted-for work history from the candidate prior to identifying an initial salary offer. The need to request additional work history from a candidate and wait for their response, especially if the candidate does not have the information readily available, can create a bottleneck in the hiring process. Programming OTAC to auto-request *all* relevant professional experience (beyond the previously requested 10 years) will remove the time-consuming information requests that can hold up the compensation determination process and empower candidates to proactively provide the necessary information.

Finding Z: Stakeholders lack transparency into compensation determination process

Candidates, TA Analysts, and Hiring Managers often described the compensation determination process as a “black hole,” due to the length of time it takes to complete and the lack of transparency into the process. With a 2-6-week timeline for determining compensation, those not involved in the process become

frustrated at the lack of transparency into *which* steps Compensation is taking and *why* those steps take as long as they do. Additionally, internal candidates reported being unaware of how their compensation is calculated, including the 15% salary cap (discussed in further depth below). This lack of transparency can lead to soured relationships and the spread of incorrect information.

Finding AA: Salary calculations based on relevant years of experience

Currently, a candidate's salary is selected from a previously-determined salary range based on the number of *relevant* years of experience and degrees/certifications. This approach breeds two potential problems. First, while this process strives to add objectivity and equity to one traditionally lacking those qualities, subjectivity remains in determining which experience is "relevant." Often, the Compensation Analyst and Hiring Manager differ on whether to deem certain parts of a candidate's work experience "relevant" to the position. Because the number of years of relevant experience directly impacts the salary being offered, the disagreement between Compensation and the Hiring Manager can be lengthy. (To gain clarity, the candidate may be contacted to provide additional information about their experiences.) Second, because Metro's method of salary calculation is solely dependent on years of relevant experience, the salary offer is unable to account for candidate qualities that may not show up in a years-based evaluation of their work history (e.g., the *quality* of their years of experience, personal aptitude, potential). Candidates are offered a salary based on what

"Sometimes those strict, rigid requirements get in the way of hiring someone that is good and competent because they don't have the years of experience; they don't account for those who are super bright and who learn fast."

they've done in the past, rather than what they will be doing in the future; salary ends up, therefore, being a reward for past successes rather than an expectation of future performance. This issue is particularly salient for positions in departments where a lengthier career is not necessarily correlated with future success, such as IT. When looking to fill a position focused on managing new Cloud-based technology, a candidate who has 20+ years of experience managing a home-grown, mainframe-based system may not be as qualified for the position as a candidate with <10 years of experience working with newer more contemporary systems. As a result, candidates for these positions, particularly in high-tech fields, will likely be offered less than the current market value for their capabilities.

Recommendation 25: Consider characteristics other than years of direct work experience when determining salary offers and when screening applications

One strength of Metro's current, years-based approach to compensation determination is that it prioritizes objectivity and equity. In this pursuit of objectivity and equity, however, other value-add characteristics that candidates bring to Metro are omitted from the calculation, including the *quality* – not just quantity – of a candidate's past work experience, the candidate's aptitudes (e.g., ability to learn), and their future potential. A similar approach should be taken when screening applications. Currently, candidates who meet a certain threshold of MQs and/or PQs move forward in the hiring process. Other factors such as character, drive, savvy, or potential that may not fall squarely within the articulated PQ should be considered, especially for entry level positions. Research has shown that strong candidate ability, social skills, and drive are common among high potential employees.⁶³ Factoring in these additional characteristics to the compensation determination process and candidate selection process can be a complicated task, but one that Metro should pursue in order to develop a process that seeks to hire more-qualified candidates.

⁶³ Ibid.

Finding BB: Out-of-range salary pursuits are beneficial, though they may require multiple signatures

Some of the Hiring Managers interviewed reported that they do *not* accept the quartile range initially offered by Compensation without attempting to increase it. As such, TA has helpfully established two avenues Hiring Managers can utilize to obtain salary increases. One approach is to qualify the role as “Hard-to-fill,” which, if approved, adds 5% to the salary quartile. To become “Hard-to-fill,” a Hiring Manager must write a memo, using a template provided by the Compensation Analyst protesting that the hiring search satisfies three of the five “Hard-to-fill” criteria.⁶⁴ A “Hard-to-fill” memo must then be signed by the Hiring Department’s Chief, TA Analyst, Chief of HC&D, and CEO. The second avenue open to Hiring Managers is to make a direct appeal to the CEO. The appeal requires an Appeal Memo drafted by the Hiring Department, which is first vetted for accuracy by Compensation prior to being circulated for signatures. An Appeal memo requires the following signatures for approval: the Hiring Department’s Chief, Chief of HC&D, and CEO. Unlike the “Hard-to-fill” exception which caps the increase at 5%, there is no salary cap for Appeal Memo. Chiefs are often hesitant to sign an Appeal Memo, reserving appeals for their highest priority positions. Both “Hard-to-fill” and Appeal Memos are completed in hard copy and require wet signatures. Both the hard copy and in-person requirements can cause significant delays in the compensation determination process.

Figure 13 tracks the compensation determination process for three recent hires. These three case studies, which span two Departments and two position levels, illustrate how different variations in the compensation determination process – specifically, a Hiring Manager pursuing a Hard-to-fill designation and/or a candidate countering their initial offer from Metro – can impact the time required to determinate compensation. Case Study #2 (28 days), in which the Hiring Manager does *not* pursue a hard-to-fill designation but the candidate *does* counter the initial salary offer, was significantly faster than Case Studies #1 (45 days) and #3 (64 days), both of which are situations where the Hiring Manager *did* pursue a Hard-to-Fill designation. Case Study #3, which had the longest compensation determination timeline, illustrates that these additional steps compound one another, as this offer was both Hard-to-fill *and* countered by the candidate. While these case studies are not intended to be representative of all compensation determination processes, they are helpful in understanding the impact that variations to the compensation determination process can have to the length of the process.

	Case Study #1	Case Study #2	Case Study #3
<i>Name of position:</i>	Manager Program Control	Manager Communications	Director Engineering Program Management
<i>Department:</i>	Program Management	Communications	Program Management
<i>Was position deemed hard-to-fill?</i>	Yes	No	Yes
<i>Did candidate counter initial offer?</i>	No	Yes	Yes
Compensation Analyst receives Salary Proposal Request	Day 1	Day 1	Day 1

⁶⁴ These five criteria include that a job was: (1) posted externally, (2) posted for more than 30 days, (3) posted above and beyond regular channels, (4) posted for a niche/technical position, and/or has (5) received two or more declines for that requisition.

Compensation Analyst completes Salary Calculator & SAG and forwards to Hiring Manager	Day 16	Day 16	Day 8
Hiring Manager provides feedback that results in an update to the experience on the SAG	-	-	-
Compensation Analyst revises Salary Calculator and SAG and forwards to Hiring Manager	-	-	-
Hiring Manager identifies amount to offer	Day 17	Day 16	Day 10
Hiring Manager requests Hard-to-Fill, Compensation Analyst drafts Hard-to-Fill Memo and forwards to department	Day 36	-	Day 23
Compensation Analyst receives Hard-to-Fill Memo with departmental signatures	Day 37	-	Day 28
Hiring Manager requests Appeal, Compensation Analyst drafts Appeal Memo and forwards to department	-	-	-
Compensation Analyst receives Appeal Memo with departmental signatures	-	-	-
Compensation Analyst drafts Salary Proposal Form and forwards to Hiring Manager	Day 38	Day 17	Day 40
Hiring Manager and Department Chief approve the Salary Proposal Form	Day 38	Day 17	Day 44
Compensation Analyst drafts Salary Proposal Cover Memo and attaches to Salary Proposal Form	Day 38	Day 17	Day 44
Talent Management approves the Salary Proposal Form and Cover Memo	Day 43	Day 21	Day 44
CEO approves the Salary Proposal Form and Cover Memo (over \$175K)	-	-	-
CEO approves Hard-to-Fill Memo	Day 44	-	Day 46
CEO approves Appeal Memo	-	-	-
Compensation Analyst extends contingent offer candidate and Total Compensation Statement is emailed	Day 44	Day 24	Day 46
Compensation Analyst receives counteroffer from candidate	-	Day 24	Day 46
Compensation Analyst informs Hiring Manager of candidate's counteroffer	-	Day 24	Day 46

Hiring Department e-mails final approved offer to Compensation Analyst	-	Day 25	Day 53
Compensation Analyst provides a response to candidate's counteroffer	-	Day 25	Day 64
Candidate accepts or declines offer	Day 45	Day 28	Day 64

Figure 13: Compensation Case Studies

Recommendation 26: Reduce required memos and forms and expedite their completion

Currently, each compensation determination process includes two to four documents that require wet signatures. Specifically, these documents include: Hard-to-Fill Memo, Appeal Memo, Salary Proposal Form, and Salary Cover Memo. The first two are required only if a Hiring Manager is attempting to obtain a salary outside of the quartile in the Salary Administrative Guidelines, and the latter two are required for all compensation determination processes. All four of these documents necessitate signatures that, as previously discussed, occur in hard copy and require a wet signature.

One approach to streamlining the compensation determination process, beyond digitization, is removing the need for the Salary Cover Memo. At present, the Salary Cover Memo is a document added to the Salary Proposal Form once the latter has been signed by the Hiring Manager and the Hiring Department Chief (and only if the salary is over the salary range midpoint, or if requested by the Hiring Department Chief). The Salary Cover Memo does not appear to include any additional or new information to the information already present on the Salary Proposal Form. Removing the need to route the Proposal Form back to the Compensation Analyst (who then drafts and attaches the Cover Memo for additional signatures) would remove an unnecessary step from the already-cumbersome process. An additional issue that arises regarding the forms is how susceptible the process is to delays when a required signatory is out of the office, on vacation, or busy with other responsibilities. As such, Metro should allow for required signatories to appoint signing proxies who can sign on the signatory’s behalf. Implementing this change would mitigate the increase in the time-to-hire that is caused by an absent or unavailable signatory. Even with a digital process in place, signing proxies will be necessary to facilitate the approval process. If signing proxies are already permissible for Metro’s hiring process, then their usage should be encouraged. (In none of the Project Team’s interviews did signing proxies arise, indicating that – if proxies are allowed today – they are not being utilized to their fullest extent.) Lastly, when a Hiring Manager selects a salary from within the range offered on the SAG, as discussed, multiple signatures are still required. The approval process for such salaries warrants further scrutiny as salaries from the SAG are already vetted by Compensation. While approval from leadership may be necessary, decreasing the number of required signatures also seems plausible.

Finding CC: Salary calculations are inequitable between internal and external candidates

Recent California law prohibits potential employers from inquiring about a candidate’s salary history; as a result, external candidates’ salary offers are calculated differently than internal candidates’ salary offers. Both the internal and external candidate salaries are determined using Metro’s Salary Calculator and Salary

“You are artificially penalized for being an internal [candidate].”

Administration Guidelines; however, internal candidates’ salaries are capped at 15% higher than their current salary, with a minimum increase of 5%, a cap that external candidates do not have. For external candidates, based on their

experience, the full salary range for that position may be considered. Internal candidates, on the other

hand, are limited because Metro bases the promotional salary on the candidate's currently known salary. The discrepancy between internal and external candidate compensation calculations incentivizes internal candidates to consider leaving Metro with a plan to return to increase the compensation base. Moreover, the 15% salary cap anchors an employee salary in their initial salary base, creating a scenario in which employees are unable to "catch up" from their initial salary and compounding the financial loss suffered as a result of this policy. The disparity in salary calculation between internal and external candidates' is perceived as inequitable and unjust by Metro employees across all departments and positions. Lastly, the 15% cap creates an incentive for Hiring Managers to hire a candidate into a role at a higher salary because Hiring Managers, understanding the cap employees face, will seek to have their job classified at a higher level to ensure a higher starting salary; thereby creating top-heavy departments with individuals with senior titles performing more junior tasks.

"It looks like we are top heavy but that's just what it takes to get things done."

Recommendation 27: Consider increasing the 15% cap on raises for internal candidates

The disparity between how salaries are calculated between internal and external candidates not only provides internal candidates with a sense of frustration and inequity, but also an incentive to consider leaving Metro, work elsewhere for a short time, and then possibly return to Metro to go through the hiring process as an external candidate. Consequently, some employees that intend to return to Metro may not. Because the ability to retain and develop talent is of particular importance especially during a strong economy, where recruiting candidates can be both challenging and expensive, it is important that Metro strive for opportunities to retain quality employees. With an unemployment rate of 3.5%, retaining talent is just as important as hiring talent. Moreover, external hires take three years to perform as well as internal hires in the same job.⁶⁵ As a result, Metro should consider increasing the 15% cap for internal candidates to facilitate the organization retaining its most valuable resource: its people.

Finding DD: Benefits and employment opportunities compensate for competitive hiring market

Annually, Metro conducts a compensation market assessment for one-third of its positions to ensure they remain properly competitive. This assessment is completed using a combination of industry-specific and industry-agnostic resources. When comparing salaries for positions at Metro against those at similar transit authorities, they are competitive; however, when comparing salaries with similar positions around LA, the money available in the private industry can be difficult to surmount. Private sector technical positions in engineering and technology, in particular, are very competitive and in close physical proximity to Metro. As one Hiring Manager bluntly stated, "This is not Google." Metro touts their generous benefits package, stability, and opportunities for growth as valuable assets that, when combined with salary, can help them compete in a competitive job market. Still, employees hold mixed feelings about salary offers. For example, external (46%) and internal (52%) candidates reported that the salary offer they received initially was below what they anticipated, partly due to the salary range on the job posting. (See [Figure 14.](#))

⁶⁵ *Your Approach to Hiring is All Wrong*, Harvard Business Review, 2019

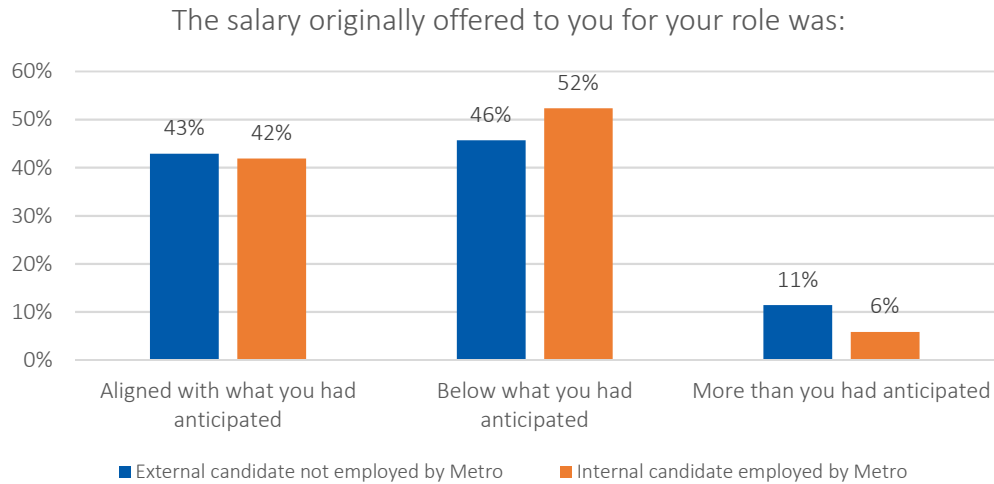


Figure 14: Candidate Salary Expectations

Finding EE: Salary ranges on job postings lead to unfulfilled expectations

All of Metro’s job postings contain the position’s salary ranges. Given the quartile system utilized at Metro, the salary range is often very wide, providing candidates with an unrealistic expectation of the salary offer they will receive because receiving an offer at the top of a salary range is very unlikely. Metro’s quartile system is structured with the expectation that most employees fall into the first or second quartiles, with only the most qualified employees eligible for the third or fourth quartiles. One Metro job posting lists a range of \$128,131 to \$209,706, a difference of \$81,575. Another posting displayed a range of \$71,115 to \$106,621, a \$35,506 difference. Providing wide salary ranges creates an unrealistic salary expectation in the minds of external candidates, leaving them feeling unnecessarily frustrated during the compensation determination process. Another negative consequence of presenting wide salary ranges is that candidates, perceiving that they can obtain a higher offer from the salary range, will counter their initial salary offer. Compensation has seen the rate of counteroffers increase and estimate that currently 75-80% of candidates counter their offer. Counteroffers increase the time-to-hire by necessitating an additional set of conversations. Upon receiving a counteroffer, the Compensation Analyst will contact the Hiring Manager with the counteroffer and the highest salary within the candidate’s current salary quartile. Typically, the Hiring Manger will advise the Compensation Analyst to do a best and final offer, a step which requires concurrence from the Chief of the hiring department. In addition to increased time-to-hire, counteroffers wear on Compensation Analysts and contribute to burn out.

“The salary bands [say that] you can earn between \$70,000 - \$110,000. It’s a little deceptive because no one gets offered that high amount. If they apply from the outside, they are going to apply and think that’s a good salary, but they come in and apply and are [at] the bottom of the range.”

Recommendation 28: Decrease the job posting salary ranges

Decreasing the salary range listed on a job posting is a way to temper the salary expectations of applicants. (One approach is to only include the first and second quartile for a specific role, while another is to just list

the average starting salary.) Not only will this improve the candidate experience, but also will likely decrease the time-to-hire for two reasons: (1) fewer over-qualified candidates will apply to the position, decreasing the time it takes for the TA Analyst and Hiring Manager to screen applications, and (2) candidates, because they will have a realistic expectation of the salary they will be offered, and will seek to negotiate salary less frequently after the initial offer. If decreasing the range on the posting is not feasible, then Metro should consider adding a note alongside the full range which communicates that the expected salary offer for new employees to this position is within the ranges of the first and second quartiles, providing the specific salaries for those quartiles.

TASK 5: COMPARE METRO TO PEER ORGANIZATIONS

Task Overview

In Task 5, the Project Team compared the efficiency and effectiveness of Metro’s hiring process to other government agencies with similar budget or of similar size.

Methodology

Complementing the documents reviews, data analyses, interviews, focus groups, and survey responses, the Project Team conducted benchmarking outreach to gather information directly from organizations similar to Metro. These organizations included governmental agencies within Los Angeles and transit agencies of similar size outside of Los Angeles. By benchmarking with the former, Metro can identify hiring process trends that are endemic to the Los Angeles area; by benchmarking with the latter, Metro can understand how their hiring process compares to peers within the same industry. The Project Team reached out to the following nine organizations to request their participation in the study via benchmarking.⁶⁶



Benchmarking was completed with four agencies (44.4%): the City of Los Angeles, MARTA (Metropolitan Atlanta Rapid Transit Authority), New Jersey Transit (NJ Transit), and SEPTA (Southeastern Pennsylvania Transportation Authority). During initial benchmarking conversations, it became clear to the Project Team that these organizations do not have detailed hiring flowcharts (such as the ones in **Appendix 2**); high-level process maps that outlined the major steps in the hiring process (see **Figure 15**) were available, however. In addition, none of the four organizations possessed definitive, trustworthy time-to-hire data. Only one of the four had time-to-hire data that it felt was reliable enough to share specific numbers⁶⁷, but even this information was provided as an estimate and not data derived from the organization’s Applicant Tracking System. In return for the organization’s participation, the Project Team committed that their organization’s specific information would not be identified when presented to Metro, unless where otherwise noted.

⁶⁶ These organizations include: Bay Area Rapid Transit (BART; San Francisco), Central Puget Sound Regional Transit Authority (Sound Transit; Seattle), Chicago Transit Authority (CTA; Chicago), City of Los Angeles, Metropolitan Atlanta Rapid Transit Authority (MARTA; Atlanta), New Jersey Transit (NJ Transit; New Jersey), Southeastern Pennsylvania Transportation Authority (SEPTA; Philadelphia), Tri-County Metropolitan Transportation District of Oregon (TriMet; Portland), and Washington Metropolitan Area Transit Authority (WMATA; Washington, D.C.). One organization with whom the Project Team sought to benchmark, but did not, is the Metropolitan Transportation Authority (MTA; New York City). Although the MTA is, like Metro, a large, multi-modal transit organization with substantial ridership, they are difficult to benchmark with because of their organizational structure. Specifically, the MTA consists of six agencies that operate fairly independently of one another: City Transit, Bus Company, Long Island Rail Road, Metro-North Railroad, Bridges and Tunnels, and Construction & Development. Each of these six agencies operates their own back-office functions (e.g., HR, Training), so the recruitment process differs widely from one agency within the Authority to another.

⁶⁷ Although one organization shared specific time-to-hire estimates, the others shared broad ranges.

The question guide use for benchmarking can be found in **Appendix 3**.

Findings and Recommendations⁶⁸

The issues facing Metro are similar to the ones facing other organizations; in this way, the efficiency and effectiveness of Metro’s hiring process is on-par with peers, though its goal should be to exceed other organizations, not parallel them.⁶⁹ Within their hiring processes, the four organizations had disparate levels the efficiency, with one organization described as “Efficient,” two organizations described as “Somewhat efficient,” and the fourth organization described as “Not efficient.” The four organizations had more similar levels of process effectiveness, with two organizations described as “Effective,” and two organizations described as “Somewhat effective.”

Finding FF: Metro’s most efficient peer outsources key recruitment activities to the hiring department

The most efficient of the four organizations had a few factors that contributed to its relatively low time-to-hire of 2-3 months. One unique aspect of this organization’s hiring process is that its recruitment function was decentralized; their recruitment group oversaw the process at a high level, but gave the hiring department wide autonomy to make decisions about, and complete, hiring process activities (e.g., screening). The hiring department, therefore, managed the day-to-day aspects of the hiring process and possessed wide latitude when deciding how to operate, often resulting in the hiring of a qualified candidate in a short timeframe. One consequence of this latitude is a less bureaucratic process where additional approvals are minimized, forms are few, and decision-making authority is centralized with one group (i.e., the hiring department); as a result, the hiring process is able to proceed faster. Of course, this latitude – and the lack of standardization that accompanies it – may result in different hiring processes for similar positions, opening the organization to risk of lawsuit. Also contributing to their efficiency is their relatively fixed compensation model, where the posted salary bands span, at most, \$40,000, and there is limited room for negotiation; as such, candidates move through the compensation determination process expediently.

Finding GG: Immature technology contributes significantly to peer’s hiring inefficiencies

One major contributor to the lack of efficiency for three of the four organizations is the lack of a robust ATS. None of these three have an up-to-date, Cloud-based Applicant Tracking System, although one is in the midst of procuring a new ATS. In fact, two of these organizations are currently using systems that are 15+ years old, are highly customized to the organization’s hiring process, and, in one case, is no longer being supported by the vendor. Although lacking a strong ATS, one of these two *has* sought to implement a technological solution to mitigate their inefficiencies; they have done this by creating a SharePoint-based digital workflow to autoroute forms needing (electronic) signatures for internal approvals. Because these organizations are utilizing unsophisticated ATSs, their hiring processes, as a whole, are paper-heavy and highly manual.

⁶⁸ Any findings resulting from benchmarking activities are included below, but any recommendations that were informed by the benchmarking activities are included with the recommendations found in Tasks 1-4.

⁶⁹ One area in which Metro *is* exceeding other organizations is on issues related to diversity and fairness; compared to the three other transit agencies in the benchmarking sample, Metro commitment to equity is well ahead of the others.

Finding HH: Peer organizations experience similar non-technological process inefficiencies as Metro

A lack of *technology* is not the only contributor to time-to-hire for these organizations; each organization also has *process*-related inefficiencies that cause the hiring process to extend. Two of the transit agencies have unclear roles and responsibilities between recruiter and Hiring Manager, specifically relating to screening. At these two organizations, screening is intended to be a responsibility of the recruiter, but the Hiring Manager’s lack of confidence in the quality of the recruiter’s screening – that is, their fear that a good candidate would get rejected by the recruiter during screening – has resulted in the Hiring Managers taking over the screening or doing a separate screening *after* the recruiter has completed theirs. Another organization’s biggest contributor to time-to-hire is scheduling of panel interviews; as expected, this step in the process takes a long time for this organization because coordinating the schedules for three panelists can be difficult. This same organization, however, also struggles with their compensation determination process, noting that they lose really good people because of the strict rules that the organization has in place regarding compensation negotiations. A representative from this organization commented, “We are penny-wise and pound-foolish...we’re losing people over \$1,500.” Another organization’s compensation determination process is similar to Metro’s in many ways. At this organization, compensation for all non-contract positions is managed by a small Compensation team. This team, for *external* candidates, identifies a salary to offer a candidate coming from the range set aside for that particular position’s title and pay grade. For example, a candidate who applied for a Manager position – which is a Grade 41 and, therefore, is eligible for a salary between \$79,000 and \$100,000⁷⁰ – may be given an offer of \$85,000 by Compensation based on their experience. For *internal* candidates, the organization provides a raise of a certain percentage that is set based on where that employee’s current salary falls compared to the mid-point of their current position.

Finding II: Metro’s hiring process steps are similar to the steps in peer organizations

As outlined in [Figure 15](#) below, the steps in Metro’s hiring process may use different names, but their process is similar to the processes outlined by each of the three transit agencies in the benchmarking sample.

	Transit Agency 1	Transit Agency 2	Transit Agency 3
1	Identify Vacancy, Generate Requisition, Host Leadership Meeting	Approve Requisition and conduct Recruitment Action Plan Meeting	Engage in Workforce Planning
2	Confirm Hiring Strategy	Post Position and Review Resumes	Generate Requisition
3	Post Position	Conduct Assessment and Select Interviewees	Post Job and Source Candidates
4	Screen Responses	Prepare for and Conduct Interview	Screen Applications
5	Conduct Testing	Select Candidate and Conduct Background Check	Conduct Testing
6	Scheduled and Prepare for Interviews	Conduct Medical Exam	Conduct Interviews

⁷⁰ Please note that this example is fictional

7	Conduct Interviews	Confirm Candidate Offer and Schedule Orientation	Select Candidate
8	Select Candidate		Conduct Medical and Background Check
9	Conduct Background Checks		Schedule and Deliver Onboarding
10	Process Employment Offer		
11	Schedule Medical Exam		
12	Arrange Release and/or Start Date		
13	Schedule Employee Orientation		

Figure 15: Steps in Hiring Process for Benchmarked Organizations

Findings JJ: Metro’s time-to-hire appears to be middle-of-the-pack

One organization, as mentioned above, was able to share reliable, quantitative estimates about time-to-hire based on ad-hoc internal analyses. A 2018⁷¹ analysis of 213 new hires uncovered that the average number of total days (i.e., *not* workdays) between when a candidate applied and when they started working at the organization was 420.7 (or 13.8 months).⁷² For this organization, the largest contributor to the 420.7 days was the time between when (1) a candidate applied, and (2) when they were invited to the next step in the hiring process. Specifically, this organization had a significant backlog in screening applications, such that they were screening “stale” Bus Operator applications, some of which were submitted over one year prior. This had a significant impact on their time-to-hire. Once the candidates were screened, the process moved much quicker; the remainder of the process took 112 days (or 3.7 months). Though not ideal, this 112 days demonstrated that if the organization was able to expedite screening, then they would be able to bring candidates on board in less than four months. Another noteworthy aspect about this organization’s time-to-hire is that the individual steps of the process did not necessarily take too long to complete; for example, scheduling and completing testing took two weeks, as did scheduling and completing interviews. The main contributors to the 112 days were not the steps themselves, but an unexplainable amount of idle time *between* steps. Although this organization had reliable time-to-hire data, this information was presented as an average; at the individual level, time-to-hire varied widely from one requisition to another. This was true with another organization, who shared that their time-to-hire could be as short as five weeks and as long as nine months. As mentioned above, the most efficient organization in the benchmarking cohort reported that its time-to-hire was, on average, two months, with a maximum of three.

⁷¹ This analysis was conducted on all hires, including both contract and non-contract employees.

⁷² When the quickest 10% and lengthiest 10% of hires were removed from the analysis to remove the influence of outliers, the average number of days dropped to 356.26 (or 11.7 months).

APPENDICES

Appendix 1: Recommendations Benefits

The table below demonstrates which of the four main benefits Metro can expect to receive as a result of implementing the recommendations outlined in this report.

Recommendations	Decreased time-to-hire	Increased effectiveness	Improved candidate experience	Decreased risk / liability
Task 1: Gather Background Information				
Recommendation 01: Employ OTAC, Metro’s new Applicant Tracking System, to obtain and utilize talent analytics	●	●	●	●
Recommendation 02: Hold hiring process stakeholders accountable for faster decision making	●		●	
Recommendation 03: Decrease post-testing communication time for the candidates	●		●	
Recommendation 04: Select interview dates and interviewers prior to the Hiring Plan Meeting	●			
Task 2: Review Policies / Procedures and Interview Personnel				
Recommendation 05: Implement a digital workflow to autoroute forms and utilize electronic signatures and assign a back-up signatory	●			●
Recommendation 06: Implement digital interview note-taking, scoring, and uploading of candidate results	●			●
Recommendation 07: Improve communication between TA and Hiring Managers regarding changes in the hiring process				●
Recommendation 08: Encourage greater use of department interviews		●	●	
Recommendation 09: Allow QCPs with similar MQs to be shared	●	●		
Recommendation 10: Clarify decision-making roles and responsibilities throughout the entire hiring process	●			
Recommendation 11: Grant Hiring Managers greater decision-making authority in screening	●	●	●	
Recommendation 12: Ensure full adoption of the OTAC system coupled with adoption of an effective change management process	●		●	
Recommendation 13: Expand Hiring Managers’ influence by allowing additional Minimum Qualifications to a position	●		●	

Recommendations	Decreased time-to-hire	Increased effectiveness	Improved candidate experience	Decreased risk / liability
Recommendation 14: Reevaluate the use of blind screening in 12 months				●
Recommendation 15: Transition EEO role from active participant to advisor, auditor, and trainer	●	●		
Recommendation 16: Utilize self-service portal for candidates to provide evidence of education and references	●		●	
Task 3: Interview New Hires				
Recommendation 17: Provide stakeholders with the ability to receive live application status updates		●	●	
Recommendation 18: Communicate to Metro employees why it lacks a promotion process			●	
Recommendation 19: Ensure OTAC's application portal meets candidates' needs			●	
Recommendation 20: Update auto-generated communications to applicants after application submission to improve hiring process expectations			●	
Recommendation 21: Institute a combination of standardized and non-standardized interview questions		●	●	
Recommendation 22: Update initial communication to candidates placed on QCP			●	
Recommendation 23: Send periodic automated emails to candidates in QCP to keep them engaged and aware of opportunities for which they may be considered			●	
Task 4: Evaluate Compensation Determination Process				
Recommendation 24: Request complete employment history earlier in the process	●		●	
Recommendation 25: Consider characteristics other than years of direct work experience when determining salary offers and when screening applications		●	●	
Recommendation 26: Reduce required memos and forms and expedite their completion	●			
Recommendation 27: Consider increasing the 15% cap on raises for internal candidates	●	●		
Recommendation 28: Decrease the job posting salary ranges	●		●	

Appendix 2: Process Maps

As part of this study, the Project Team created two process maps that provide a detailed view of the hiring and compensation processes. The two process maps created for this assessment – one that maps the entire recruitment process, and one that maps the compensation determination process – can be found in a partner file titled *LA Metro Hiring Process Study - Process Maps – vF.pdf*.

Appendix 3: Question Guides

<i>LA Metro Hiring Process Study – New Hire Interview</i>	
Interviewee:	
Interview Date:	
Location:	
Attendees:	
Key Themes	
•	
Lingering Questions	
•	
Key Quotes	
•	
Key Discussion Summary	
<p>Introduction</p> <ul style="list-style-type: none"> • Introduce interviewers • Review project • Summarize goal of interview • Remind about confidentiality <p><i>*note to interviewer: the questions below serve as a jumping off point for each interview. Please ask follow-up questions to explore and pursue details, clarity, and new ideas, as you see fit.</i></p> <p>Questions</p> <ol style="list-style-type: none"> 1. Tell us about your tenure here at Metro. What is your current role and how long have been with the organization? 2. As a new hire, you recently completed the hiring process. What did you like / dislike about your experience in the hiring process? What are the process' strengths / weaknesses? [Note to interviewer: walk through the hiring process if needed as a prompt.] 3. Describe the speediness of your hiring process. <ol style="list-style-type: none"> a. Which steps took the longest? b. When did things move smoothly? c. Specifically, how much time passed between when you accepted the offer and your first day on the job? Why? d. How much time passed between receiving an offer and orientation? 	

4. How would you describe your experience with the online application system?
5. How would you describe your interactions with your point-of-contact (POC) with Metro throughout the process? (Did you know who your POC was? When were you introduced to that person? How easy was it to get in touch with them? Were they able to answer your questions accurately and quickly?)
6. How would you describe your experience with the compensation determination and negotiation processes? [Note to interviewer: follow up with the interviewee to ask them {1} whether Metro explained how this process works, and {2} what was explained to the interviewee about compensation expectations at Metro over the next few years.]
7. If you could change three things about the hiring process, what would you change? [Note to interviewer: if none of the replies would change speediness of the hiring process, ask a specific follow-up question about what changes, if made, would make the process faster.]
8. Which factors were most important to you when considering accepting the job at Metro?
9. Is there anything you would like to share with us that may influence our findings that we have not already covered today?

LA Metro Hiring Process Study – Focus Groups

Purpose:

To capture feedback from participants as it relates to their hiring process experience.

Agenda:

- Thank you / Welcome / Introduction
- Broad questions / exercises
- Core questions and deeper dive on broad questions
- Wrap-up

(5 Minutes) - Introduction: Thank you / Welcome / Introduction - *(our names, overview of the project, why we're doing focus groups, will end this focus group promptly, confidentiality reminder and aggregated answers, people will be taking notes)*

(5-10 minutes) - Ice Breaker Question: Each person will take a minute or less to share his or her name, how long they've worked at Metro and 1 fun fact about themselves. *(The facilitators will also participate but not the working at Metro part, just say name again and fun fact.)*

(10 minutes) - Establish baseline candidate-facing Hiring Process Stages

Ask: If there are any questions or clarifications about the 10 Hiring Process Stages described

(40-50 minutes) - Broad Questions: *Explain the first 2 questions and the meaning of the sticker colors and the instructions for the exercise, we'll also set a timer for 45 minutes.*

Part 1:

- **What areas of the hiring process could be streamlined? (shortened)** - *Each participant will be given several red, yellow and green sticker dots and asked to place one dot under each stage section (red = very long/slow, yellow = medium, green = fast) They are to put one color dot under each stage. They will do this at the same time and of course, can step back to think if necessary. We should remind them to not overthink this and to just give their best guess based on their memory.*
- **What was the longest part of the process for you?** *Each participant will be given one black dot to place under the part of the process that took the longest for them. Once all of their dots have been placed they can be seated.*
- *Based on where the dots have been placed, we will have a deeper discussion around the areas that have the most yellow, red and black dots soliciting more feedback. We will use post-it notes to get people to elaborate and use those post-it suggestions for a larger discussion. (Each person will be given a post-it pad and pen and will be asked - **"Please write down any insights you have as it relates to the reasons you placed a red, yellow or black dot where you did. Do you recall if the reasons related to the delays for that stage were due to your own personal schedule or situation or if it was due to Metro. If it was due to Metro, were you given a reason as to why?"** Please jot down anything you can remember so we can further discuss." Explain we will be grouping the post-its to see if there are similarities and discussing ones that have multiple mentions of similar insights. We'll also note that we will try to get to as many as we can but most likely won't have time to discuss every single post-it. Ask if there are any questions or clarifications needed for the post-it exercise)*
- *As they jot down notes on their post-its, they are to place each post-it on the corresponding stage poster under the grouping of sticker dots for that stage. A facilitator will, in real-time, start grouping and reorganizing post-its based on topics to determine if there are similarities. Once everyone has completed the post-its, we will identify key topics that were mentioned more than once. The goal is to have at least 5 identified as a starting point. We'll ask if anyone would like to volunteer to talk about anything they wrote. If no one volunteers, we'll select the first grouping and ask the group to have an open discussion about that topic. We'll remind them that in order to share it doesn't have to be their post-it but if the topic resonates with them or they have something helpful to add, they are more than welcome to speak up and share. Once we've gone through the majority of the groupings OR we've passed 30 minutes for this exercise on the timer, we'll wrap up this portion and move on to the next section.*
- **What changes would you make to the process to speed it up?** *(Keep this broad and just solicit ideas, ask to clarify if necessary. We won't use post-its just get people to speak and share as they have ideas)*
- **How was the communication throughout the process?** *(This will just be an open discussion so no stickers or post-its are necessary for this portion) We'll ask this broad question and move to the deeper questions below, if necessary)*
 - Do you feel you knew who you should talk to or ask questions throughout the process?
 - How responsive/timely was the communication throughout the process?
 - Anything else they'd like to mention about communication during the hiring process?

(15 - 20 minutes) - Core Questions:

- **Was the compensation of the offer you received what you were expecting? If not, how did it differ?** - Use dots exercise again for this question (red = much lower than expectation, yellow = at expectation, green = above expectation, we'll use one poster paper for this question and ask if anyone would like to share more insights into why they chose red, yellow or green)
 - Open discussion: How competitive do you feel the salary and benefits are at Metro?
- **Were you offered another opportunity outside of Metro prior to accepting Metro's offer?** - Ask a show of hands (have a facilitator take a count)
- **What were the main reasons you decided to accept Metro's offer?** We will use post-it notes again for this question and organize into categories and have an open discussion based on the results. They are to put one reason per post-it.

Optional Questions (if time permits):

- **What stage of the process was the most problematic for you?** (Keep broad and don't necessarily define problematic, we'll have them quickly write the stage on a post-it.)
- Open discussion about the online application process - **how easy was it to navigate, how long did it take? What's one thing you'd improve?**

(5 minutes) - Wrap-Up

LA Metro Hiring Process Study – Survey

Introduction

To meet the Region's growing transportation demands, LA Metro may hire hundreds of people to fill open positions this year. In preparation for this influx of hiring, the Office of the Inspector General (OIG) has hired outside consultants, SCA Strategic (SCA) and North Highland (NH), to study the current hiring process and identify ways to improve its efficiency and effectiveness.

This survey – which is designed and managed by SCA and NH – is to hear from employees hired or promoted between **July 1, 2018**, and **June 30, 2019**. Your candid responses are greatly appreciated and strictly confidential; they **will not** be shared individually.

If you've been both hired into LA Metro and promoted between **July 1, 2018**, and **June 30, 2019**, or promoted twice within that time, please answer the following questions in light of your first hire/promotion within that date range.

Please complete and submit this survey **by Friday, February 28th**.

Thank you, in advance, for your time and your feedback!

Questions

Role and Department

1. What is your name? (**Only the consultants have access** to your name so they can ask any follow-up questions as needed. The information you provide in this survey will be anonymized when submitted to Metro.)
2. What was the title of the position you accepted with Metro between July 1, 2018, and June 30, 2019?

3. In which Department does this role reside?

(Note that “Board of Directors” includes Inspector General and Ethics. “Chief Executive Office” includes: Asset Management, Building Services, Emergency Preparedness, Employee & Labor Relations, General Services, Management Audit, Civil Rights, Extraordinary Innovation, Risk Management, Safety, System Security & Law Enforcement, Talent Development, and Workforce Services.)

- a. Board of Directors
- b. Chief Executive Office
- c. Communications
- d. Congestion Reduction
- e. Finance and Budget
- f. Information Technology
- g. Operations
- h. Planning and Development
- i. Program Management
- j. Vendor / Contract Management

4. What type of candidate were you at the time of application?

- a. External candidate not employed by Metro (this includes contractors or consultants)
- b. Internal candidate employed by Metro

Hiring Process

Step	Beginning of Step	End of Step	Estimated duration (in days)
Application Submission	Started completing the application	Submitted the application	A
Gap			B
Assessment / Test	Received invitation to take assessment	Submitted assessment	C
Gap			D
Initial Panel Interview	Received invitation to interview	Completed interview	E
Gap			F
Qualified Candidate Pool (QCP) Placement	Received notification that you were placed in the QCP	Received invitation to next step in the process (e.g., Interview #2, employment certification)	G
Gap			H
Second Panel Interview	Received invitation to second interview	Completed second interview	I
Gap			J
Employment Certification	Received request for additional resume information (first outreach)	Received request for additional resume information (last outreach)	K
Gap			L
Compensation Process	Received initial salary offer	Received final salary offer	M
Gap			N
Background Checks / Physical	Received request to complete fingerprints, complete physical, etc.	Scheduled for orientation	O
Orientation	Scheduled for orientation	Completed Day 1 of Orientation	P

5. Referencing the chart above, please estimate the length of time (in days, including weekends) for each step of your hiring process and the length of time for the gaps between each step of your hiring process. Referring to past emails for exact dates may be helpful. The letters below correspond to the letters in the chart above.

If one of these steps was not part of your hiring process, simply write "N/A". If you participated in a step not mentioned, please provide a description of the step with its estimated duration using the open-ended question #6 below. (If a step took less than one day, please round up to one day.)

A.
B.
C.
D.
E.
F.
G.
H.
I.
J.
K.
L.
M.
N.
O.
P.

6. What additional information, if any, would you like to provide to your estimates above?
7. How confident are you in the accuracy of the estimates you provided previously?
 - a. Very confident
 - b. Somewhat confident
 - c. Not confident
8. The salary *originally* offered to you for your role was:
 - a. More than you had anticipated
 - b. Aligned with what you had anticipated
 - c. Below what you had anticipated
9. Please rate the following factors in terms of how heavily they weighed in your decision to accept a role at LA Metro (with 1 being your most important factor):
 - a. _____ Salary
 - b. _____ Benefits
 - c. _____ Job duties
 - d. _____ Opportunity for growth
 - e. _____ Work/life balance
 - f. _____ Stability of employment
 - g. _____ Interest in the transportation industry
 - h. _____ Positive reputation of LA Metro work
 - i. _____ Other:
10. If marked "other" above, please elaborate here:
11. Which of the following best describes your experience at Metro?
 - a. My role is what I expected it would be based on what I learned in the hiring process
 - b. My role is notably different than what I expected, but I am content with it
 - c. My role is notably different than what I expected, and I would not have accepted this role had I known this beforehand

12. What other information about your hiring process, if any, would you like to share with us?

LA Metro Hiring Process Study – Benchmarking Questionnaire

Please answer the following questions for your organization's management hiring (that is, non-contract).

1. How would you describe the efficiency – i.e., speed – of your organization's hiring process? (bold one)
 - a. Not efficient
 - b. Somewhat efficient
 - c. Efficient
 - d. Very efficient

2. How would you describe the effectiveness – i.e., the ability to get a quality candidate in the vacancy – of your organization's hiring process? (bold one)
 - a. Not effective
 - b. Somewhat effective
 - c. Effective
 - d. Very effective

3. LA Metro has 10 main steps in their hiring process.

What are the major steps in your organization's hiring process? (Feel free to attach documentation if you prefer.)

4. Does your organization track time-to-hire? If so, what marks the starting and ending points of this metric?
5. What is your organization's average time-to-hire? (Providing an estimate is sufficient if you do not have the data.)
6. Which steps – or, gaps *between* hiring process steps – contribute most to your organization's time-to-hire? Why?
7. What changes, if any, have been made to your organization's hiring process in the past few years to improve its efficiency or effectiveness?
8. LA Metro's process for determining what salary to offer a candidate is complex and time-consuming. Please describe the process your organization uses to determine the salary offered to a candidate. (Feel free to attach a policy / SOP if easier, but please be sure to note where the reality of the process departs from policy, if at all.)

Appendix 4: Schedule of Report Findings and Recommendations

The table below is intended to be used by Metro to assign the recommendations proposed in this report to relevant stakeholders, who are then to develop next steps and propose completion dates for their recommendation's implementation.

#	Recommendation Description	Related Findings #	Assigned Staff in Charge	Agree/ Disagree	Proposed Action	Est. Date Completed
1	Employ OTAC, Metro's new Applicant Tracking System, to obtain and utilize talent analytics	A				
2	Hold hiring process stakeholders accountable for faster decision making	A				
3	Decrease post-testing communication time for the candidates	A				
4	Select interview dates and interviewers prior to the Hiring Plan Meeting	A				
5	Implement a digital workflow to autoroute forms and utilize electronic signatures and assign a back-up signatory	B				
6	Implement digital interview note-taking, scoring, and uploading of candidate results	B				
7	Improve communication between TA and Hiring Managers regarding changes in the hiring process	C				
8	Encourage greater use of department interviews	D				
9	Allow QCPs with similar MQs to be shared	E				
10	Clarify decision-making roles and responsibilities throughout the entire hiring process	F				
11	Grant Hiring Managers greater decision-making authority in screening	F				
12	Ensure full adoption of the OTAC system coupled with adoption of an effective change management process	G				
13	Expand Hiring Managers' influence by allowing additional Minimum Qualifications to a position	J				

14	Reevaluate the use of blind screening in 12 months	K
15	Transition EEO role from active participant to advisor, auditor, and trainer	L
16	Utilize self-service portal for candidates to provide evidence of education and references	M
17	Provide stakeholders with the ability to receive live application status updates	O
18	Communicate to Metro employees why it lacks a promotion process	P
19	Ensure OTAC's application portal meets candidates' needs	S
20	Update auto-generated communications to applicants after application submission to improve hiring process expectations	T
21	Institute a combination of standardized and non-standardized interview questions	V
22	Update initial communication to candidates placed on QCP	W
23	Send periodic automated emails to candidates in QCP to keep them engaged and aware of opportunities for which they may be considered	W
24	Request complete employment history earlier in the process	Y
25	Consider characteristics other than years of direct work experience when determining salary offers and when screening applications	AA
26	Reduce required memos and forms and expedite their completion	BB
27	Consider increasing the 15% cap on raises for internal candidates	CC
28	Decrease the job posting salary ranges	EE



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Metro Personnel Hiring Process Study

OIG Report No. 20-AUD-09

Karen Gorman, Inspector General
Office of the Inspector General

September 2020



Objectives

To meet Board objectives of expediting projects. In particular, this study was to determine whether:

- There are areas where the hiring process could be streamlined;
- The personnel hiring process is operating effectively;
- The compensation determinations are reasonable and effective to accomplish a speedy hiring process; and
- The applicant experience may be improved.

Methodology

Interviews, Focus Group Discussions, and Surveys

Findings

- Metro's commitment to equity is integrated in its value system.
- Metro promotes diversity and inclusion in the hiring.
- However, the hiring process is found inefficient, consisting of lengthy times-to-hire, manual and paper-based activities, and redundant steps.

Recommendations

This study made 28 recommendations. By acting on these recommendations, Metro can expect to obtain benefits of

- Decreased time-to-hire;
- Increased effectiveness;
- Improved candidate experience; and
- Decreased risk/liability.